

Moveatis Java Class Documentation
Software version 1.0.0

Version 1.0.0

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June 15, 2016

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- `java.lang.Exception`
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Chapter 1

Package com.moveatis.application

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ApplicationEntity	6
The entity represents the data of the application in the database.	
InstallationBean	8
The class does the installation task of the Moveatis application.	
RedirectURLs	9
The class has the URIs for redirection within the Jyväskylä University login system.	

1.1 Class ApplicationBean

The Application enterprise bean controls access to the application entity. It is a singleton bean, so only one instance is running at any time, and it is automatically started when the application is started.

1.1.1 Declaration

```
public class ApplicationBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Application
```

1.1.2 Constructors

- **ApplicationBean**

```
public ApplicationBean()
```


1.1.3 Methods

- **checkInstalled**

```
public boolean checkInstalled ()
```

- **Description**

Checks if the application has been installed.

- **getApplicationEntity**

```
public ApplicationEntity getApplicationEntity ()
```

- **Description**

Gets the singleton application entity.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager ()
```

1.1.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in [26.1](#), page [156](#))

- public int **count**()
- public void **create**(BaseEntity entity)
- public void **edit**(BaseEntity entity)
- public BaseEntity **find**(java.lang.Object id)
- public List **findAll**()
- public List **findRange**(int[] range)
- protected abstract EntityManager **getEntityManager**()
- public void **remove**(BaseEntity entity)

1.2 Class ApplicationEntity

The entity represents the data of the application in the database.

1.2.1 Declaration

```
public class ApplicationEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

1.2.2 Constructors

- **ApplicationEntity**

```
public ApplicationEntity ()
```

1.2.3 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getApplicationInstalled**

```
public java.util.Date getApplicationInstalled()
```

- **Description**

- Returns the date when the application was installed.

- **getReportEmail**

```
public java.lang.String getReportEmail()
```

- **getSuperUsers**

```
public java.util.List getSuperUsers()
```

- **Description**

- Gets the list of the users with the superuser role.

- **hashCode**

```
public native int hashCode()
```

- **setApplicationInstalled**

```
public void setApplicationInstalled(java.util.Date  
    applicationInstalled)
```

- **Description**

- Sets the date when the application was installed.

- **setReportEmail**

```
public void setReportEmail(java.lang.String reportEmail)
```

- **setSuperUsers**

```
public void setSuperUsers(java.util.List superUsers)
```

- **toString**

```
public java.lang.String toString()
```

1.2.4 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in [26.2](#), page [158](#))

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

1.3 Class InstallationBean

The class does the installation task of the Moveatis application.

1.3.1 Declaration

```
public class InstallationBean
    extends java.lang.Object implements java.io.Serializable
```

1.3.2 Constructors

- **InstallationBean**

```
public InstallationBean()
```

1.3.3 Methods

- **createApplication**

```
public com.moveatis.enums.ApplicationStatusCode
    createApplication()
```

- **Description**

The method creates the application, which includes setting the installation date, adding the user to superusers, and adding the reporting email address, where possible error reports are sent.

- **Returns** – enum, which result of the installation.

1.4 Class RedirectURLs

The class has the URIs for redirection within the Jyväskylä University login system.

1.4.1 Declaration

```
public class RedirectURLs  
  extends java.lang.Object
```

1.4.2 Fields

- `public static final java.lang.String HOME_URI`
- `public static final java.lang.String SHIBBOLETH_REDIRECT_SECURE_URI`
- `public static final java.lang.String LOCALHOST_REDIRECT_SECURE_URI`
- `public static final java.lang.String LOCALHOST_HOME_URI`
- `public static final java.lang.String SHIBBOLET_LOGOUT_URL`
- `public static final java.lang.String CONTROL_PAGE_URI`
- `public static final java.lang.String ERROR_PAGE_URI`
- `public static final java.lang.String SMTP_HOST`

1.4.3 Constructors

- `RedirectURLs`

```
public RedirectURLs()
```

Chapter 2

Package `com.moveatis.category`

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CategorySetBean 14	
The EJB manages the CategorySet entities.	
CategorySetEntity 15	
The entity represents a category set in the database.	
CategoryType 17	
The enum represents the information of a category.	

2.1 Class `CategoryBean`

The EJB manages the Category entity.

2.1.1 Declaration

```
public class CategoryBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Category
```

2.1.2 Constructors

- `CategoryBean`

```
public CategoryBean ()
```

2.1.3 Methods

- **findByLabel**

```
public CategoryEntity findByLabel(java.lang.String label)
```

- **Description**

The method is used for finding the category with the certain label.

- **Parameters**

- * `label` – The label to find the category by.

- **Returns** – The found category or null.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

- **removeFromCategorySet**

```
public void removeFromCategorySet(CategorySetEntity  
whichCategorySet, CategoryEntity whichCategory)
```

- **Description**

Removes the category from the category set.

- **Parameters**

- * `whichCategorySet` – The category set the category belongs to.

- * `whichCategory` – The category to be removed.

2.1.4 Members inherited from class AbstractBean

`com.moveatis.abstracts.AbstractBean` (in [26.1](#), page [156](#))

- `public int count()`
- `public void create(BaseEntity entity)`
- `public void edit(BaseEntity entity)`
- `public BaseEntity find(java.lang.Object id)`
- `public List findAll()`
- `public List findRange(int[] range)`
- `protected abstract EntityManager getEntityManager()`
- `public void remove(BaseEntity entity)`

2.2 Class CategoryEntity

The entity represents the categories of an observation in the database.

2.2.1 Declaration

```
public class CategoryEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

2.2.2 Constructors

- **CategoryEntity**

```
    public CategoryEntity()
```

2.2.3 Methods

- **equals**

```
    public boolean equals(java.lang.Object arg0)
```

- **getCanOverlap**

```
    public java.lang.Boolean getCanOverlap()
```

- **getCategorySet**

```
    public CategorySetEntity getCategorySet()
```

- **getCategoryType**

```
    public CategoryType getCategoryType()
```

- **getDescription**

```
    public java.lang.String getDescription()
```

- **getId**

```
    protected java.lang.Long getId()
```

- **getLabel**

```
    public com.moveatis.label.LabelEntity getLabel()
```

- **getOrderNumber**

```
public java.lang.Integer getOrderNumber()
```

- **hashCode**

```
public native int hashCode()
```

- **setCanOverlap**

```
public void setCanOverlap(java.lang.Boolean canOverlap)
```

- **setCategorySet**

```
public void setCategorySet(CategorySetEntity categorySet)
```

- **setCategoryType**

```
public void setCategoryType(CategoryType categoryType)
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **setLabel**

```
public void setLabel(com.moveatis.label.LabelEntity label)
```

- **setOrderNumber**

```
public void setOrderNumber(java.lang.Integer orderNumber)
```

- **toString**

```
public java.lang.String toString()
```


2.2.4 Members inherited from class BaseEntity

`com.moveatis.abstracts.BaseEntity` (in 26.2, page 158)

- `public Date getCreated()`
- `protected Long getId()`
- `protected Date getRemoved()`
- `protected id`
- `public void setCreated()`
- `protected void setId(java.lang.Long id)`
- `protected void setRemoved()`

2.3 Class CategorySetBean

The EJB manages the CategorySet entities.

2.3.1 Declaration

```
public class CategorySetBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.CategorySet
```

2.3.2 Constructors

- **CategorySetBean**

```
public CategorySetBean()
```

2.3.3 Methods

- **findPublicCategorySets**

```
public java.util.Set findPublicCategorySets()
```

- **Description**

Finds the category sets that are set as public.

- **Returns** – Set of all public category set entities.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

- **remove**

```
public void remove(CategorySetEntity categorySetEntity)
```

- **Description**

Sets the category set removal date and removes the category set from event groups.

- **Parameters**

- * `categorySetEntity` – The category set entity to be removed.

- **removeCategoryFromCategorySet**

```
public void removeCategoryFromCategorySet ( CategorySetEntity
      categorySet , CategoryEntity categoryEntity )
```

- **Description**

Removes the category from the category set.

- **Parameters**

- * `categorySet` – The category set from which the category is removed from.

- * `categoryEntity` – The category to be removed from the category set.

2.3.4 Members inherited from class `AbstractBean`

`com.moveatis.abstracts.AbstractBean` (in 26.1, page 156)

- `public int count()`
- `public void create(BaseEntity entity)`
- `public void edit(BaseEntity entity)`
- `public BaseEntity find(java.lang.Object id)`
- `public List findAll()`
- `public List findRange(int[] range)`
- `protected abstract EntityManager getEntityManager()`
- `public void remove(BaseEntity entity)`

2.4 Class `CategorySetEntity`

The entity represents a category set in the database.

2.4.1 Declaration

```
public class CategorySetEntity
  extends com.moveatis.abstracts.BaseEntity implements java.io.
    Serializable
```

2.4.2 Constructors

- **CategorySetEntity**

```
public CategorySetEntity()
```

2.4.3 Methods

- equals

```
public boolean equals(java.lang.Object arg0)
```

- getCategoryEntitys

```
public java.util.Map getCategoryEntitys()
```

- getCreator

```
public com.moveatis.user.IdentifiedUserEntity getCreator()
```

- getDescription

```
public java.lang.String getDescription()
```

- getEventGroupEntity

```
public com.moveatis.event.EventGroupEntity getEventGroupEntity()
```

- getId

```
protected java.lang.Long getId()
```

- getLabel

```
public java.lang.String getLabel()
```

- hashCode

```
public native int hashCode()
```

- setCategoryEntitys

```
public void setCategoryEntitys(java.util.Map categoryEntitys)
```

- setCreator

```
public void setCreator(com.moveatis.user.IdentifiedUserEntity  
creator)
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setEventGroupEntity**

```
public void setEventGroupEntity(com.moveatis.event.  
    EventGroupEntity eventGroupEntity)
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

- **toString**

```
public java.lang.String toString()
```

2.4.4 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in 26.2, page 158)

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

2.5 Class CategoryType

The enum represents the information of a category. A category can be either a timed category with a time value, or a counted category with an amount value.

2.5.1 Declaration

```
public final class CategoryType  
    extends java.lang.Enum
```

2.5.2 Fields

- public static final CategoryType **TIMED**
- public static final CategoryType **COUNTED**

2.5.3 Methods

- `valueOf`

```
public static CategoryType valueOf(java.lang.String name)
```

- `values`

```
public static CategoryType[] values()
```

2.5.4 Members inherited from class Enum

`java.lang.Enum`

- protected final Object `clone()` throws `CloneNotSupportedException`
- public final int `compareTo(Enum arg0)`
- public final boolean `equals(Object arg0)`
- protected final void `finalize()`
- public final Class `getDeclaringClass()`
- public final int `hashCode()`
- public final String `name()`
- public final int `ordinal()`
- public String `toString()`
- public static Enum `valueOf(Class arg0, String arg1)`

Chapter 3

Package `com.moveatis.devel`

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The bean is a dummy login bean for development purposes, as it mocks the Sibboleth identity provider system of Jyväskylä University.	

3.1 Class `DevelJYULoginBean`

The bean is a dummy login bean for development purposes, as it mocks the Sibboleth identity provider system of Jyväskylä University.

3.1.1 Declaration

```
public class DevelJYULoginBean
    extends java.lang.Object
```

3.1.2 Constructors

- `DevelJYULoginBean`

```
public DevelJYULoginBean()
```

- **Description**

Creates a new instance of `DevelJYULoginBean`.

3.1.3 Methods

- `doLogin`

```
public java.lang.String doLogin()
```

- **doRegistration**

```
public java.lang.String doRegistration()
```

- **doSuperUserRegistration**

```
public java.lang.String doSuperUserRegistration()
```

- **getAffiliation**

```
public java.lang.String getAffiliation()
```

- **getGivenName**

```
public java.lang.String getGivenName()
```

- **getIsLocalhost**

```
public java.lang.Boolean getIsLocalhost()
```

- **getUsername**

```
public java.lang.String getUsername()
```

- **setAffiliation**

```
public void setAffiliation(java.lang.String affiliation)
```

- **setGivenName**

```
public void setGivenName(java.lang.String givenName)
```

- **setUsername**

```
public void setUsername(java.lang.String username)
```

Chapter 4

Package `com.moveatis.enums`

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The enum contains the information of the status of the application.	
MailStatus	22
The enum represents the status of the mail that was sent.	

4.1 Class `ApplicationStatusCode`

The enum contains the information of the status of the application. The application can be already installed, the installation went fine, or there was an error.

4.1.1 Declaration

```
public final class ApplicationStatusCode
    extends java.lang.Enum
```

4.1.2 Fields

- `public static final ApplicationStatusCode ALREADY_INSTALLED`
- `public static final ApplicationStatusCode INSTALLATION_OK`
- `public static final ApplicationStatusCode INSTALLATION_FAILED`

4.1.3 Methods

- `valueOf`

```
public static ApplicationStatusCode valueOf(java.lang.String
    name)
```


- values

```
public static ApplicationStatusCode [] values()
```

4.1.4 Members inherited from class Enum

```
java.lang.Enum
```

- protected final Object `clone()` throws CloneNotSupportedException
- public final int `compareTo(Enum arg0)`
- public final boolean `equals(Object arg0)`
- protected final void `finalize()`
- public final Class `getDeclaringClass()`
- public final int `hashCode()`
- public final String `name()`
- public final int `ordinal()`
- public String `toString()`
- public static Enum `valueOf(Class arg0, String arg1)`

4.2 Class MailStatus

The enum represents the status of the mail that was sent. The mail was either sent successfully or the sending failed.

4.2.1 Declaration

```
public final class MailStatus
    extends java.lang.Enum
```

4.2.2 Fields

- public static final MailStatus `MAIL_SENT_OK`
- public static final MailStatus `MAIL_SENT_FAILED`

4.2.3 Methods

- valueOf

```
public static MailStatus valueOf(java.lang.String name)
```

- values

```
public static MailStatus [] values()
```

4.2.4 Members inherited from class Enum

java.lang.Enum

- protected final Object **clone()** throws CloneNotSupportedException
- public final int **compareTo**(Enum arg0)
- public final boolean **equals**(Object arg0)
- protected final void **finalize**()
- public final Class **getDeclaringClass**()
- public final int **hashCode**()
- public final String **name**()
- public final int **ordinal**()
- public String **toString**()
- public static Enum **valueOf**(Class arg0, String arg1)

Chapter 5

Package `com.moveatis.error`

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The servlet handles the errors, that might be thrown in the course of executing the software.	

5.1 Class ErrorHandler

The servlet handles the errors, that might be thrown in the course of executing the software. It mails the error to the superuser mail account and redirects the user to an error page.

5.1.1 Declaration

```
public class ErrorHandler
    extends HttpServlet
```

5.1.2 Constructors

- **ErrorHandler**

```
    public ErrorHandler ()
```

5.1.3 Methods

- **doGet**

```
protected void doGet(HttpServletRequest request ,
    HttpServletResponse response) throws ServletException , java.
    io.IOException
```

- **Description**

Handles the HTTP GET method.

- **Parameters**
 - * `request` – servlet request.
 - * `response` – servlet response.
- **Throws**
 - * `ServletException` – if a servlet-specific error occurs.
 - * `java.io.IOException` – if an I/O error occurs.

- **doPost**

```
protected void doPost(HttpServletRequest request ,  
    HttpServletResponse response) throws ServletException , java.  
    io.IOException
```

- **Description**

Handles the HTTP POST method.
- **Parameters**
 - * `request` – servlet request.
 - * `response` – servlet response.
- **Throws**
 - * `ServletException` – if a servlet-specific error occurs.
 - * `java.io.IOException` – if an I/O error occurs.

- **getServletInfo**

```
public java.lang.String getServletInfo()
```

- **Description**

Returns a short description of the servlet.
- **Returns** – a String containing servlet description.

- **processRequest**

```
protected void processRequest(HttpServletRequest request ,  
    HttpServletResponse response) throws ServletException , java.  
    io.IOException
```

- **Description**

Processes requests for both HTTP GET and POST methods.
- **Parameters**
 - * `request` – servlet request.
 - * `response` – servlet response.
- **Throws**
 - * `ServletException` – if a servlet-specific error occurs.
 - * `java.io.IOException` – if an I/O error occurs.

Chapter 6

Package com.moveatis.event

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The entity represents the information of the events.	
EventGroupBean 30	
The EJB manages the event group entities.	
EventGroupEntity 31	
The entity represents the information for the event groups of the application.	

6.1 Class EventBean

The EJB manages the events of an user.

6.1.1 Declaration

```
public class EventBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Event
```

6.1.2 Constructors

- **EventBean**

```
public EventBean()
```

6.1.3 Methods

- **findEventsForUser**

```
public java.util.List findEventsForUser (com.moveatis.user .
    IdentifiedUserEntity user)
```

– **Description**

Returns a list of the events belonging to the requested user.

– **Parameters**

* **user** – The user for which the events should be searched for.

– **Returns** – A list of the user’s events.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager ()
```

- **getEventEntity**

```
public EventEntity getEventEntity ()
```

– **Description**

Gets the event that is currently associated with the instance of the eventBean.

– **Returns** – the EventEntity associated with the instance.

- **removeObservation**

```
public void removeObservation (com.moveatis.observation .
    ObservationEntity observationEntity)
```

– **Description**

The method removes the observations from the event of the instance of the eventBean.

– **Parameters**

* **observationEntity** – The observation to be removed from the event.

6.1.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in [26.1](#), page [156](#))

- public int **count**()
- public void **create**(BaseEntity **entity**)
- public void **edit**(BaseEntity **entity**)
- public BaseEntity **find**(java.lang.Object **id**)
- public List **findAll**()
- public List **findRange**(int[] **range**)
- protected abstract EntityManager **getEntityManager**()
- public void **remove**(BaseEntity **entity**)

6.2 Class EventEntity

The entity represents the information of the events.

6.2.1 Declaration

```
public class EventEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

6.2.2 Constructors

- **EventEntity**

```
public EventEntity()
```

6.2.3 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getCreator**

```
public com.moveatis.user.AbstractUser getCreator()
```

- **getDescription**

```
public java.lang.String getDescription()
```

- **getEventGroup**

```
public EventGroupEntity getEventGroup()
```

- **getId**

```
protected java.lang.Long getId()
```

- **getLabel**

```
public java.lang.String getLabel()
```

- **getObservations**

```
public java.util.Set getObservations ()
```

- **hashCode**

```
public native int hashCode()
```

- **setCreator**

```
public void setCreator(com.moveatis.user.AbstractUser creator)
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setEventGroup**

```
public void setEventGroup(EventGroupEntity eventGroup)
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

- **setObservations**

```
public void setObservations(java.util.Set observations)
```

- **toString**

```
public java.lang.String toString()
```

6.2.4 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in [26.2](#), page [158](#))

- public Date **getCreated**()
- protected Long **getId**()
- protected Date **getRemoved**()
- protected **id**
- public void **setCreated**()
- protected void **setId**(java.lang.Long id)
- protected void **setRemoved**()

6.3 Class EventGroupBean

The EJB manages the event group entities.

6.3.1 Declaration

```
public class EventGroupBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.EventGroup
```

6.3.2 Constructors

- **EventGroupBean**

```
public EventGroupBean()
```

6.3.3 Methods

- **findAllForOwner**

```
public java.util.List findAllForOwner(com.moveatis.user.
    AbstractUser owner)
```

- **Description**

Finds and returns a list of the event groups belonging to the given user.

- **Parameters**

* **owner** – The user whose event groups are searched for.

- **Returns** – A list of the event groups.

- **findAllForPublicUser**

```
public java.util.List findAllForPublicUser()
```

- **Description**

Finds and returns the event groups that are allowed for public use.

- **Returns** – A list of the event groups.

- **findAllForUser**

```
public java.util.List findAllForUser(com.moveatis.user.
    AbstractUser user)
```

- **Description**

Finds and returns a list of event groups, which the given user has access to.

- **Parameters**
 - * **user** – The user whose event groups are searched for.
- **Returns** – A list of the event groups.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

- **removeCategorySetEntityFromEventGroups**

```
public void removeCategorySetEntityFromEventGroups(com.moveatis.
    category.CategorySetEntity categorySetEntity)
```

- **Description**

The method removes the given category set from all of the event groups that have the category set.
- **Parameters**
 - * **categorySetEntity** – The category set to be removed from the event groups.

6.3.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in 26.1, page 156)

- public int count()
- public void create(BaseEntity entity)
- public void edit(BaseEntity entity)
- public BaseEntity find(java.lang.Object id)
- public List findAll()
- public List findRange(int[] range)
- protected abstract EntityManager getEntityManager()
- public void remove(BaseEntity entity)

6.4 Class EventGroupEntity

The entity represents the information for the event groups of the application. The event group has just one event, but the class could be extended to support multiple events. The event group can be identified with a groupkey, which allows semi-public usage.

6.4.1 Declaration

```
public class EventGroupEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

6.4.2 Constructors

- **EventGroupEntity**

```
public EventGroupEntity()
```

6.4.3 Methods

- equals

```
public boolean equals(java.lang.Object arg0)
```

- getCategorySets

```
public java.util.Set getCategorySets()
```

- getDescription

```
public java.lang.String getDescription()
```

- getEvent

```
public EventEntity getEvent()
```

- getGroupKey

```
public com.moveatis.groupkey.GroupKeyEntity getGroupKey()
```

- getId

```
protected java.lang.Long getId()
```

- getLabel

```
public java.lang.String getLabel()
```

- getOwner

```
public com.moveatis.user.AbstractUser getOwner()
```

- getUsers

```
public java.util.Set getUsers()
```

- hashCode

```
public native int hashCode()
```

- **setCategorySets**

```
public void setCategorySets(java.util.Set categorySets)
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setEvent**

```
public void setEvent(EventEntity event)
```

- **setGroupKey**

```
public void setGroupKey(com.moveatis.groupkey.GroupKeyEntity  
    groupKey)
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

- **setOwner**

```
public void setOwner(com.moveatis.user.AbstractUser owner)
```

- **setUsers**

```
public void setUsers(java.util.Set users)
```

- **toString**

```
public java.lang.String toString()
```

6.4.4 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in 26.2, page 158)

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

Chapter 7

Package `com.moveatis.exception`

Package Contents

Page

7.1 Exception `InstallationRedirectException`

The exception informs the developers or the admin that something went wrong with the installation.

7.1.1 Declaration

```
public class InstallationRedirectException
    extends java.lang.RuntimeException
```

7.1.2 Constructors

- **InstallationRedirectException**

```
public InstallationRedirectException ()
```

- **Description**

Creates a new instance of `InstallationRedirectException` without a detailed message.

- **InstallationRedirectException**

```
public InstallationRedirectException (java.lang.String msg)
```

- **Description**

Constructs an instance of `InstallationRedirectException` with the specified detailed message.

- **Parameters**

- * `msg` – the detailed message.

- **InstallationRedirectException**

```
public InstallationRedirectException(java.lang.String msg, java.
    lang.Throwable cause)
```

- **InstallationRedirectException**

```
public InstallationRedirectException(java.lang.String msg, java.
    lang.Throwable cause, boolean enableSuppression, boolean
    writableStackTrace)
```

- **InstallationRedirectException**

```
public InstallationRedirectException(java.lang.Throwable cause)
```

7.1.3 Members inherited from class Throwable

java.lang.Throwable

- public final synchronized void **addSuppressed**(Throwable arg0)
- public synchronized Throwable **fillInStackTrace**()
- public synchronized Throwable **getCause**()
- public String **getLocalizedMessage**()
- public String **getMessage**()
- public StackTraceElement **getStackTrace**()
- public final synchronized Throwable **getSuppressed**()
- public synchronized Throwable **initCause**(Throwable arg0)
- public void **printStackTrace**()
- public void **printStackTrace**(java.io.PrintStream arg0)
- public void **printStackTrace**(java.io.PrintWriter arg0)
- public void **setStackTrace**(StackTraceElement[] arg0)
- public String **toString**()

Chapter 8

Package `com.moveatis.export`

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Builds a CSV file from an observation.	

8.1 Class CSVBuilder

Builds CSV formatted data to OutputStream.

8.1.1 Declaration

```
public class CSVBuilder
    extends java.lang.Object
```

8.1.2 Constructors

- **CSVBuilder**

```
public CSVBuilder(java.io.OutputStream output, java.lang.String
    separator)
```

– **Description**

Constructs a builder with the given stream and separator.

– **Parameters**

- * **output** – The stream to write the CSV data to.
- * **separator** – The separator to be used between the fields.

8.1.3 Methods

- **add**

```
public CSVBuilder add(java.lang.Long value) throws java.io.  
    IOException
```

- **Description**

Adds the long field to the stream.

- **Parameters**

- * `value` – The field value.

- **Returns** – The instance of the CSVBuilder for convenience.

- **Throws**

- * `java.io.IOException` –

- **add**

```
public CSVBuilder add(java.lang.String value) throws java.io.  
    IOException
```

- **Description**

Escapes the string field and adds it to the stream.

- **Parameters**

- * `value` – The field value.

- **Returns** – The instance of the CSVBuilder for convenience.

- **Throws**

- * `java.io.IOException` –

- **addPercent**

```
public CSVBuilder addPercent(java.lang.Long value) throws java.  
    io.IOException
```

- **Description**

Adds the long field followed by a percent character (%) to the stream.

- **Parameters**

- * `value` – Field value.

- **Returns** – The instance of the CSVBuilder for convenience.

- **Throws**

- * `java.io.IOException` –

- **close**

```
public void close() throws java.io.IOException
```

- **Description**

Closes the writer that uses the OutputStream given in the constructor.

- **Throws**

* java.io.IOException –

- **newLine**

```
public CSVBuilder newLine() throws java.io.IOException
```

- **Description**

Adds a CSV new line to the stream.

- **Returns** – The instance of the CSVBuilder for convenience.

- **Throws**

* java.io.IOException –

8.2 Class CSVFileBuilder

Builds a CSV file from an observation.

8.2.1 Declaration

```
public class CSVFileBuilder
  extends java.lang.Object
```

8.2.2 Constructors

- **CSVFileBuilder**

```
public CSVFileBuilder()
```

8.2.3 Methods

- **buildCSV**

```
public void buildCSV(java.io.OutputStream out, com.moveatis.
  observation.ObservationEntity obs, java.lang.String separator)
  throws java.io.IOException
```

– **Description**

Builds a CSV file from the given observation and writes it to the output stream.

– **Parameters**

- * `out` – The stream to write the CSV data to.
- * `obs` – The observation to be built.
- * `separator` – The separator used between the CSV fields.

– **Throws**

- * `java.io.IOException` –

Chapter 9

Package com.moveatis.filters

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The filter controls access to the control page only for the identified users.	
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The filter checks that the pages in /app folder are accessed only through the frontpage.	
SuperUserFilter	43
The filter allows only identified users that have the superuser role to access the superuser page.	

9.1 Class ControlFilter

The filter controls access to the control page only for the identified users.

9.1.1 Declaration

```
public class ControlFilter
    extends java.lang.Object
```

9.1.2 Constructors

- **ControlFilter**

```
public ControlFilter()
```

9.1.3 Methods

- **destroy**

```
public void destroy()
```

- **Description**
Destroys the filter.

- **doFilter**

```
public void doFilter(ServletRequest request, ServletResponse
    response, FilterChain chain) throws java.io.IOException,
    ServletException
```

- **Parameters**

- * **request** – The servlet request to be processed.
- * **response** – The servlet response to be created.
- * **chain** – The filter chain to be processed.

- **Throws**

- * **java.io.IOException** – if an input or output error occurs.
- * **ServletException** – if a servlet error occurs.

- **getFilterConfig**

```
public FilterConfig getFilterConfig()
```

- **Description**

Returns the filter configuration object for the filter.

- **init**

```
public void init(FilterConfig filterConfig)
```

- **Description**

Initializes the filter.

- **log**

```
public void log(java.lang.String msg)
```

- **setFilterConfig**

```
public void setFilterConfig(FilterConfig filterConfig)
```

- **Description**

Sets the filter configuration object for the filter.

- **Parameters**

* `filterConfig` – The filter configuration object.

- **toString**

```
public java.lang.String toString()
```

- **Description**

Returns a string representation of the object.

9.2 Class LoginFilter

The filter checks that the pages in /app folder are accessed only through the frontpage.

9.2.1 Declaration

```
public class LoginFilter
    extends java.lang.Object
```

9.2.2 Constructors

- **LoginFilter**

```
public LoginFilter()
```

9.2.3 Methods

- **destroy**

```
public void destroy()
```

- **Description**

Destroys the filter.

- **doFilter**

```
public void doFilter(ServletRequest request, ServletResponse
    response, FilterChain chain) throws java.io.IOException,
    ServletException
```

- **Parameters**

- * `request` – The servlet request to be processed.
- * `response` – The servlet response to be created.
- * `chain` – The filter chain to be processed.

- **Throws**

- * `java.io.IOException` – if an input or output error occurs.
- * `ServletException` – if a servlet error occurs.

- **getFilterConfig**

```
public FilterConfig getFilterConfig()
```

- **Description**

Returns the filter configuration object for the filter.

- **init**

```
public void init(FilterConfig filterConfig)
```

- **Description**

Initializes the filter.

- **log**

```
public void log(java.lang.String msg)
```

- **setFilterConfig**

```
public void setFilterConfig(FilterConfig filterConfig)
```

- **Description**

Sets the filter configuration object for the filter.

- **Parameters**

- * `filterConfig` – The filter configuration object.

- **toString**

```
public java.lang.String toString()
```

- **Description**

Returns a string representation of the object.

9.3 Class SuperUserFilter

The filter allows only identified users that have the superuser role to access the superuser page.

9.3.1 Declaration

```
public class SuperUserFilter
    extends java.lang.Object
```

9.3.2 Constructors

- **SuperUserFilter**

```
    public SuperUserFilter ()
```

9.3.3 Methods

- **destroy**

```
    public void destroy ()
```

- **Description**

- Destroys the filter.

- **doFilter**

```
    public void doFilter(ServletRequest request, ServletResponse
        response, FilterChain chain) throws java.io.IOException,
        ServletException
```

- **Parameters**

- * **request** – The servlet request to be processed.
 - * **response** – The servlet response to be created.
 - * **chain** – The filter chain to be processed.

- **Throws**

- * **java.io.IOException** – if an input or output error occurs.
 - * **ServletException** – if a servlet error occurs.

- **getFilterConfig**

```
    public FilterConfig getFilterConfig ()
```

- **Description**

- Returns the filter configuration object for the filter.

- **init**

```
    public void init(FilterConfig filterConfig)
```

- **Description**

Initializes the filter.

- **log**

```
public void log(java.lang.String msg)
```

- **setFilterConfig**

```
public void setFilterConfig(FilterConfig filterConfig)
```

- **Description**

Sets the filter configuration object for the filter.

- **Parameters**

* `filterConfig` – The filter configuration object.

- **toString**

```
public java.lang.String toString()
```

- **Description**

Returns a string representation of the object.

Chapter 10

Package com.moveatis.groupkey

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The EJB manages group keys that are used to access the event groups in a "semi-public" fashion.	
GroupKeyEntity 47	
The entity presents the group key that the event groups can be identified with in the database.	

10.1 Class GroupKeyBean

The EJB manages group keys that are used to access the event groups in a "semi-public" fashion.

10.1.1 Declaration

```
public class GroupKeyBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.GroupKey
```

10.1.2 Constructors

- **GroupKeyBean**

```
public GroupKeyBean()
```

10.1.3 Methods

- **findByKey**

```
public GroupKeyEntity findByKey(java.lang.String key)
```

- **Description**

The method finds and returns the group key, which has the same value as the specified parameter.

- **Parameters**

- * **key** – String-representation of the key.

- **Returns** – the group key or null.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

- **getGroupKeyEntity**

```
public GroupKeyEntity getGroupKeyEntity()
```

- **Description**

The method returns the group key, which currently is associated with the instance.

- **Returns** – The group key associated with the instance for groupkeyEJB.

- **removePermanently**

```
public void removePermanently(GroupKeyEntity groupKeyEntity)
```

- **Description**

The method removes the group keys permanently. Usually the entities are not removed from the database, as only their removal date is set. If the group key need to be reused, they need to be removed permanently before reuse.

- **Parameters**

- * **groupKeyEntity** – The group key to be removed.

10.1.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in [26.1](#), page [156](#))

- public int **count**()
- public void **create**(BaseEntity entity)
- public void **edit**(BaseEntity entity)
- public BaseEntity **find**(java.lang.Object id)
- public List **findAll**()
- public List **findRange**(int[] range)
- protected abstract EntityManager **getEntityManager**()
- public void **remove**(BaseEntity entity)

10.2 Class GroupKeyEntity

The entity presents the group key that the event groups can be identified with in the database.

10.2.1 Declaration

```
public class GroupKeyEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

10.2.2 Constructors

- **GroupKeyEntity**

```
    public GroupKeyEntity()
```

10.2.3 Methods

- **equals**

```
    public boolean equals(java.lang.Object arg0)
```

- **getCreator**

```
    public com.moveatis.user.IdentifiedUserEntity getCreator()
```

- **getEventGroup**

```
    public com.moveatis.event.EventGroupEntity getEventGroup()
```

- **getGroupKey**

```
    public java.lang.String getGroupKey()
```

- **getLabel**

```
    public java.lang.String getLabel()
```

- **getTagUser**

```
    public com.moveatis.user.TagUserEntity getTagUser()
```

- **hashCode**

```
    public native int hashCode()
```

- **setCreator**

```
public void setCreator(com.moveatis.user.IdentifiedUserEntity
    creator)
```

- **setEventGroup**

```
public void setEventGroup(com.moveatis.event.EventGroupEntity
    eventGroup)
```

- **setGroupKey**

```
public void setGroupKey(java.lang.String groupKey)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

- **setTagUser**

```
public void setTagUser(com.moveatis.user.TagUserEntity tagUser)
```

- **toString**

```
public java.lang.String toString()
```

10.2.4 Members inherited from class **BaseEntity**

com.moveatis.abstracts.BaseEntity (in [26.2](#), page [158](#))

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

Chapter 11

Package com.moveatis.helpers

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The helper class contains the static validation function(s).	

11.1 Class GroupKeyGenerator

The helper class could be used to generate a random group key, if the user cannot come up with one by herself.

11.1.1 Declaration

```
public class GroupKeyGenerator
    extends java.lang.Object
```

11.1.2 Constructors

- **GroupKeyGenerator**

```
    public GroupKeyGenerator()
```

11.1.3 Methods

- **getGroupKey**

```
    public static java.lang.String getGroupKey()
```

11.2 Class Validation

The helper class contains the static validation function(s).

11.2.1 Declaration

```
public class Validation
    extends java.lang.Object
```

11.2.2 Constructors

- **Validation**

```
    public Validation ()
```

11.2.3 Methods

- **validateForJsAndHtml**

```
public static java.lang.String validateForJsAndHtml(java.lang.
    String s)
```

- **Description**

Validates the given string so that it can be placed as a JavaScript string in an HTML script tag.

- **Parameters**

* **s** – The string to be validated.

- **Returns** – The validated string that contains only accepted characters.

Chapter 12

Package com.moveatis.identityprovider

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An example EJB that implements the custom identity provider service.	
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The entity represents the data needed to identify an existing user.	
IdentityProviderRegistrationBean	55
An example managed bean for customizing an identity service.	

12.1 Interface IdentityProvider

The interface for the identity provider service that must be implemented, if the identity provider service needs to be customized outside Jyväskylä University.

12.1.1 Declaration

```
public interface IdentityProvider
```

12.1.2 All known subinterfaces

IdentityProviderRegistrationBean (in 12.4, page 55), IdentityProviderInformationEntity (in 12.3, page 54)

12.1.3 All classes known to implement interface

IdentityProviderRegistrationBean (in 12.4, page 55), IdentityProviderInformationEntity (in 12.3, page 54)

12.1.4 Methods

- **getIdentifiedUserEntity**

```
com.moveatis.user.IdentifiedUserEntity getIdentifiedUserEntity()
```

12.2 Class IdentityProviderBean

An example EJB that implements the custom identity provider service.

12.2.1 Declaration

```
public class IdentityProviderBean
    extends com.moveatis.abstracts.AbstractBean
```

12.2.2 Constructors

- **IdentityProviderBean**

```
public IdentityProviderBean()
```

12.2.3 Methods

- **findIpEntityByUsername**

```
public IdentityProviderInformationEntity findIpEntityByUsername(
    java.lang.String userName)
```

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

12.2.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in 26.1, page 156)

- public int count()
- public void create(BaseEntity entity)
- public void edit(BaseEntity entity)
- public BaseEntity find(java.lang.Object id)
- public List findAll()
- public List findRange(int[] range)
- protected abstract EntityManager getEntityManager()
- public void remove(BaseEntity entity)

12.3 Class IdentityProviderInformationEntity

The entity represents the data needed to identify an existing user. The example entity must be rewritten, if a custom identity service is to be used.

12.3.1 Declaration

```
public class IdentityProviderInformationEntity
extends com.moveatis.abstracts.BaseEntity implements
    IdentityProvider , java.io.Serializable
```

12.3.2 Constructors

- **IdentityProviderInformationEntity**

```
public IdentityProviderInformationEntity ()
```

12.3.3 Methods

- **getAffiliation**

```
public java.lang.String getAffiliation ()
```

- **getIdentifiedUserEntity**

```
com.moveatis.user.IdentifiedUserEntity getIdentifiedUserEntity ()
```

- **getUsername**

```
public java.lang.String getUsername ()
```

- **setAffiliation**

```
public void setAffiliation (java.lang.String affiliation )
```

- **setUserEntity**

```
public void setUserEntity (com.moveatis.user.IdentifiedUserEntity
    userEntity )
```

- **setUsername**

```
public void setUsername (java.lang.String username )
```

12.3.4 Members inherited from class BaseEntity

`com.moveatis.abstracts.BaseEntity` (in 26.2, page 158)

- `public Date getCreated()`
- `protected Long getId()`
- `protected Date getRemoved()`
- `protected id`
- `public void setCreated()`
- `protected void setId(java.lang.Long id)`
- `protected void setRemoved()`

12.4 Class IdentityProviderRegistrationBean

An example managed bean for customizing an identity service.

12.4.1 Declaration

```
public class IdentityProviderRegistrationBean
    extends java.lang.Object implements IdentityProvider , java.io.
        Serializable
```

12.4.2 Constructors

- **IdentityProviderRegistrationBean**

```
public IdentityProviderRegistrationBean ()
```

12.4.3 Methods

- **getIdentifiedUserEntity**

```
com.moveatis.user.IdentifiedUserEntity getIdentifiedUserEntity ()
```

- **registerSuperUser**

```
public void registerSuperUser (ActionEvent actionEvent)
```

Chapter 13

Package com.moveatis.interfaces

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The interface to manage public users within the Moveatis.	
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The interface to manage the category entity.	
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The interface to manage the category set entity.	
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The interface to manage the event entity.	
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The interface to manage the event group entity.	
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The interface to manage the group key entity.	
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The interface to send mails.	
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The interface to manage the role entity.	
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The interface to manage the session entity.	
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	The interface to manage the tag user entity.	
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	The interface to manage the user entity.	

13.1 Interface AnonUser

The interface to manage public users within the Moveatis.

13.1.1 Declaration

```
public interface AnonUser
```

13.1.2 All known subinterfaces

AnonUserBean (in [24.2](#), page [146](#))

13.1.3 All classes known to implement interface

AnonUserBean (in [24.2](#), page [146](#))

13.1.4 Methods

- **create**

```
void create(com.moveatis.user.AnonUserEntity userEntity)
```

- **edit**

```
void edit(com.moveatis.user.AnonUserEntity userEntity)
```

- **find**

```
com.moveatis.user.AnonUserEntity find()
```

- **findAll**

```
java.util.List findAll()
```

- **remove**

```
void remove(com.moveatis.user.AnonUserEntity userEntity)
```

13.2 Interface Application

The interface to manage the application entity.

13.2.1 Declaration

```
public interface Application
```

13.2.2 All known subinterfaces

ApplicationBean (in [1.1](#), page 5)

13.2.3 All classes known to implement interface

ApplicationBean (in [1.1](#), page 5)

13.2.4 Methods

- **checkInstalled**

```
boolean checkInstalled ()
```

- **count**

```
int count ()
```

- **create**

```
void create (com.moveatis.application.ApplicationEntity  
applicationEntity)
```

- **edit**

```
void edit (com.moveatis.application.ApplicationEntity  
applicationEntity)
```

- **getApplicationEntity**

```
com.moveatis.application.ApplicationEntity getApplicationEntity  
()
```

- **remove**

```
void remove (com.moveatis.application.ApplicationEntity  
applicationEntity)
```

13.3 Interface Category

The interface to manage the category entity. The category specifies the type or class of an observation record. For example, a teacher giving feedback to a student could be categorized as "Giving feedback".

13.3.1 Declaration

```
public interface Category
```

13.3.2 All known subinterfaces

CategoryBean (in 2.1, page 10)

13.3.3 All classes known to implement interface

CategoryBean (in 2.1, page 10)

13.3.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.category.CategoryEntity categoryEntity)
```

- **edit**

```
void edit(com.moveatis.category.CategoryEntity categoryEntity)
```

- **find**

```
com.moveatis.category.CategoryEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findByLabel**

```
com.moveatis.category.CategoryEntity findByLabel(java.lang.String label)
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **remove**

```
void remove(com.moveatis.category.CategoryEntity categoryEntity)
```

- **removeFromCategorySet**

```
void removeFromCategorySet(com.moveatis.category.
    CategorySetEntity whichCategorySet ,com.moveatis.category.
    CategoryEntity whichCategory)
```

13.4 Interface CategorySet

The interface to manage the category set entity. The category set contains different categories that can be thought as a group. For example, a category set named "Teacher's activities" could contain categories like "Organizing", "Observing", and "Giving feedback".

13.4.1 Declaration

```
public interface CategorySet
```

13.4.2 All known subinterfaces

CategorySetBean (in [2.3](#), page [14](#))

13.4.3 All classes known to implement interface

CategorySetBean (in [2.3](#), page [14](#))

13.4.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.category.CategorySetEntity
    categoryTemplateEntity)
```

- **edit**

```
void edit(com.moveatis.category.CategorySetEntity
         categoryTemplateEntity)
```

- **find**

```
com.moveatis.category.CategorySetEntity find(java.lang.Object id
)
```

- **findAll**

```
java.util.List findAll()
```

- **findPublicCategorySets**

```
java.util.Set findPublicCategorySets()
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **remove**

```
void remove(com.moveatis.category.CategorySetEntity
            categoryTemplateEntity)
```

- **removeCategoryFromCategorySet**

```
void removeCategoryFromCategorySet(com.moveatis.category.
    CategorySetEntity categorySet ,com.moveatis.category.
    CategoryEntity categoryEntity)
```

13.5 Interface Event

The interface to manage the event entity. Event specifies the situation that is observed. For example, the event could be "Teaching situation number 4".

13.5.1 Declaration

```
public interface Event
```

13.5.2 All known subinterfaces

EventBean (in 6.1, page 26)

13.5.3 All classes known to implement interface

EventBean (in 6.1, page 26)

13.5.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.event.EventEntity eventEntity)
```

- **edit**

```
void edit(com.moveatis.event.EventEntity eventEntity)
```

- **find**

```
com.moveatis.event.EventEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findEventsForUser**

```
java.util.List findEventsForUser(com.moveatis.user.  
    IdentifiedUserEntity user)
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **getEventEntity**

```
com.moveatis.event.EventEntity getEventEntity()
```

- **remove**

```
void remove(com.moveatis.event.EventEntity eventEntity)
```

- **removeObservation**

```
void removeObservation(com.moveatis.observation.
    ObservationEntity observationEntity)
```

13.6 Interface EventGroup

The interface to manage the event group entity. The event group contains different events that can be thought as a group. For example, an event group named "Exploratory teacher" could contain events like "Teaching situation number 1", "Teaching situation number 2", etc.

13.6.1 Declaration

```
public interface EventGroup
```

13.6.2 All known subinterfaces

EventGroupBean (in 6.3, page 30)

13.6.3 All classes known to implement interface

EventGroupBean (in 6.3, page 30)

13.6.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.event.EventGroupEntity eventGroupEntity
    )
```

- **edit**

```
void edit(com.moveatis.event.EventGroupEntity eventGroupEntity)
```

- **find**

```
com.moveatis.event.EventGroupEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findAllForOwner**

```
java.util.List findAllForOwner(com.moveatis.user.AbstractUser
    owner)
```

- **findAllForPublicUser**

```
java.util.List findAllForPublicUser()
```

- **findAllForUser**

```
java.util.List findAllForUser(com.moveatis.user.AbstractUser
    user)
```

- **findRange**

```
java.util.List findRange(int[] range)
```

- **remove**

```
void remove(com.moveatis.event.EventGroupEntity eventGroupEntity
    )
```

- **removeCategorySetEntityFromEventGroups**

```
void removeCategorySetEntityFromEventGroups(com.moveatis.
    category.CategorySetEntity categorySetEntity)
```

13.7 Interface GroupKey

The interface to manage the group key entity. A group key is used to identify an event group for "semi-public" usage. Anyone who knows the group key for a particular event group, can use the event group.

13.7.1 Declaration

```
public interface GroupKey
```

13.7.2 All known subinterfaces

GroupKeyBean (in [10.1](#), page 46)

13.7.3 All classes known to implement interface

GroupKeyBean (in [10.1](#), page [46](#))

13.7.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.groupkey.GroupKeyEntity groupKeyEntity)
```

- **edit**

```
void edit(com.moveatis.groupkey.GroupKeyEntity groupKeyEntity)
```

- **find**

```
com.moveatis.groupkey.GroupKeyEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findByKey**

```
com.moveatis.groupkey.GroupKeyEntity findByKey(java.lang.String  
key)
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **getGroupKeyEntity**

```
com.moveatis.groupkey.GroupKeyEntity getGroupKeyEntity()
```

- **remove**

```
void remove(com.moveatis.groupkey.GroupKeyEntity groupKeyEntity)
```

- **removePermanently**

```
void removePermanently(com.moveatis.groupkey.GroupKeyEntity  
    groupKeyEntity)
```

13.8 Interface Label

The interface to manage the label entity. A label is a name for a category. If there are several similarly named categories, like "Giving feedback", they can all use the same label.

13.8.1 Declaration

```
public interface Label
```

13.8.2 All known subinterfaces

LabelBean (in 14.1, page 77)

13.8.3 All classes known to implement interface

LabelBean (in 14.1, page 77)

13.8.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.label.LabelEntity labelEntity)
```

- **edit**

```
void edit(com.moveatis.label.LabelEntity labelEntity)
```

- **find**

```
com.moveatis.label.LabelEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findByLabel**

```
com.moveatis.label.LabelEntity findByLabel(java.lang.String
    label)
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **remove**

```
void remove(com.moveatis.label.LabelEntity labelEntity)
```

13.9 Interface Mailer

The interface to send mails.

13.9.1 Declaration

```
public interface Mailer
```

13.9.2 All known subinterfaces

MailerBean (in 15.1, page 80)

13.9.3 All classes known to implement interface

MailerBean (in 15.1, page 80)

13.9.4 Methods

- **sendEmail**

```
com.moveatis.enums.MailStatus sendEmail(java.lang.String []
    recipients ,java.lang.String subject ,java.lang.String message)
```

- **sendEmailWithAttachment**

```
com.moveatis.enums.MailStatus sendEmailWithAttachment(java.lang.
    String [] recipient ,java.lang.String subject ,java.lang.String
    message ,java.io.File [] attachmentFile)
```

13.10 Interface MessageBundle

The qualifier for the message bundle is needed to provide a resource bundle as injected resource for transient managed beans.

13.10.1 Declaration

```
public interface MessageBundle
    extends java.lang.annotation.Annotation
```

13.11 Interface Observation

The interface to manage the observation entity. The observation contains the records a user made when he or she was observing some event.

13.11.1 Declaration

```
public interface Observation
```

13.11.2 All known subinterfaces

ObservationBean (in [17.1](#), page [112](#))

13.11.3 All classes known to implement interface

ObservationBean (in [17.1](#), page [112](#))

13.11.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.observation.ObservationEntity
            observationEntity)
```

- **edit**

```
void edit(com.moveatis.observation.ObservationEntity
           observationEntity)
```

- **find**

```
com.moveatis.observation.ObservationEntity find(java.lang.Object
    id)
```

- **findAll**

```
java.util.List findAll()
```

- **findAllByObserver**

```
java.util.List findAllByObserver(com.moveatis.user.AbstractUser
    observer)
```

- **findByEventsNotOwned**

```
java.util.List findByEventsNotOwned(com.moveatis.user.
    AbstractUser observer)
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **findRecords**

```
java.util.List findRecords(java.lang.Object id)
```

- **findWithoutEvent**

```
java.util.List findWithoutEvent(com.moveatis.user.AbstractUser
    observer)
```

- **remove**

```
void remove(com.moveatis.observation.ObservationEntity
    observationEntity)
```

- **removeUnsavedObservation**

```
void removeUnsavedObservation(com.moveatis.observation.
    ObservationEntity observationEntity)
```


13.12 Interface Record

The interface to manage the record entity. A record is a single instance of a category in an observation. For example, if during an observation a teacher gives feedback for 5 minutes, there would be a record of the category "Giving feedback" with a duration of 5 minutes.

13.12.1 Declaration

```
public interface Record
```

13.12.2 All known subinterfaces

RecordBean (in [19.1](#), page [124](#))

13.12.3 All classes known to implement interface

RecordBean (in [19.1](#), page [124](#))

13.12.4 Methods

- **count**

```
int count ()
```

- **create**

```
void create (com.moveatis.records.RecordEntity recordEntity)
```

- **edit**

```
void edit (com.moveatis.records.RecordEntity recordEntity)
```

- **find**

```
com.moveatis.records.RecordEntity find (java.lang.Object id)
```

- **findAll**

```
java.util.List findAll ()
```

- **findRange**

```
java.util.List findRange (int [] range)
```

- **remove**

```
void remove(com.moveatis.records.RecordEntity recordEntity)
```

13.13 Interface Role

The interface to manage the role entity. A role grants more finegrained access rights to the users. For now, the only role is the superuser role.

13.13.1 Declaration

```
public interface Role
```

13.13.2 All known subinterfaces

RoleBean (in 21.2, page 133)

13.13.3 All classes known to implement interface

RoleBean (in 21.2, page 133)

13.13.4 Methods

- **addSuperuserRoleToUser**

```
void addSuperuserRoleToUser(com.moveatis.user.
    IdentifiedUserEntity user)
```

- **addSuperuserRoleToUser**

```
void addSuperuserRoleToUser(com.moveatis.user.
    IdentifiedUserEntity user, java.util.Date startDate, java.util.
    Date endDate)
```

- **checkIfUserIsSuperUser**

```
boolean checkIfUserIsSuperUser(com.moveatis.user.
    IdentifiedUserEntity user)
```

- **listSuperusers**

```
java.util.List listSuperusers()
```

- **removeSuperuserRoleFromUser**

```
void removeSuperuserRoleFromUser (com.moveatis.user .
    IdentifiedUserEntity user)
```

13.14 Interface Session

The interface to manage the session entity. The session is a context, in which a particular user is using Moveatis. The session has information, that is meaningful in the current context, such as whether the user has been identified or not.

13.14.1 Declaration

```
public interface Session
```

13.14.2 All known subinterfaces

SessionBean (in [22.2](#), page [138](#))

13.14.3 All classes known to implement interface

SessionBean (in [22.2](#), page [138](#))

13.14.4 Methods

- **getCategorySetsInUse**

```
java.util.List getCategorySetsInUse()
```

- **getGroupKey**

```
com.moveatis.groupkey.GroupKeyEntity getGroupKey()
```

- **getIsLocalhost**

```
boolean getIsLocalhost()
```

- **getLoggedIdentifiedUser**

```
com.moveatis.user.IdentifiedUserEntity getLoggedIdentifiedUser()
```

- **getLoggedInUser**

```
com.moveatis.user.AbstractUser getLoggedInUser()
```

- **getReturnUri**

```
java.lang.String getReturnUri()
```

- **getSessionObservationsIds**

```
java.util.SortedSet getSessionObservationsIds()
```

- **getSessionTimeZone**

```
java.util.TimeZone getSessionTimeZone()
```

- **isIdentifiedUser**

```
boolean isIdentifiedUser()
```

- **isLoggedIn**

```
boolean isLoggedIn()
```

- **isSaveable**

```
boolean isSaveable()
```

- **setAnonymityUser**

```
void setAnonymityUser()
```

- **setCategorySetsInUse**

```
void setCategorySetsInUse(java.util.List categorySets)
```

- **setIdentityProviderUser**

```
void setIdentityProviderUser(com.moveatis.user.  
    IdentifiedUserEntity user)
```

- **setReturnUri**

```
void setReturnUri(java.lang.String uri)
```

- **setSessionObservations**

```
void setSessionObservations(java.util.SortedSet observationsIds)
```

- **setSessionTimeZone**

```
void setSessionTimeZone(java.util.TimeZone timeZone)
```

- **setTagUser**

```
void setTagUser(com.moveatis.user.TagUserEntity tagUser)
```

13.15 Interface TagUser

The interface to manage the tag user entity. A tag user is the user account for group keys, which are used to identify event groups.

13.15.1 Declaration

```
public interface TagUser
```

13.15.2 All known subinterfaces

TagUserBean (in [24.5](#), page [150](#))

13.15.3 All classes known to implement interface

TagUserBean (in [24.5](#), page [150](#))

13.15.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.user.TagUserEntity userEntity)
```

- **edit**

```
void edit(com.moveatis.user.TagUserEntity userEntity)
```

- **find**

```
com.moveatis.user.TagUserEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findByKey**

```
com.moveatis.user.TagUserEntity findByKey(com.moveatis.groupkey.  
GroupKeyEntity groupkey)
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **remove**

```
void remove(com.moveatis.user.TagUserEntity userEntity)
```

13.16 Interface User

The interface to manage the user entity. A user is the identified user, which means that they are recognized by the identity provider service.

13.16.1 Declaration

```
public interface User
```

13.16.2 All known subinterfaces

UserBean (in [24.7](#), page [152](#))

13.16.3 All classes known to implement interface

UserBean (in [24.7](#), page [152](#))

13.16.4 Methods

- **count**

```
int count()
```

- **create**

```
void create(com.moveatis.user.IdentifiedUserEntity userEntity)
```

- **edit**

```
void edit(com.moveatis.user.IdentifiedUserEntity userEntity)
```

- **find**

```
com.moveatis.user.IdentifiedUserEntity find(java.lang.Object id)
```

- **findAll**

```
java.util.List findAll()
```

- **findRange**

```
java.util.List findRange(int [] range)
```

- **remove**

```
void remove(com.moveatis.user.IdentifiedUserEntity userEntity)
```

Chapter 14

Package com.moveatis.label

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14.1 Class LabelBean

The EJB manages the labels.

14.1.1 Declaration

```
public class LabelBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Label
```

14.1.2 Constructors

- **LabelBean**

```
public LabelBean()
```

14.1.3 Methods

- **findByLabel**

```
public LabelEntity findByLabel(java.lang.String label)
```

- **Description**

Finds and returns the label entity with the given string as its value.

- **Parameters**
 - * `label` – The string to search for.
- **Returns** – the `LabelEntity` or null.

- `getEntityManager`

```
protected abstract EntityManager getEntityManager()
```

14.1.4 Members inherited from class `AbstractBean`

`com.moveatis.abstracts.AbstractBean` (in [26.1](#), page [156](#))

- `public int count()`
- `public void create(BaseEntity entity)`
- `public void edit(BaseEntity entity)`
- `public BaseEntity find(java.lang.Object id)`
- `public List findAll()`
- `public List findRange(int[] range)`
- `protected abstract EntityManager getEntityManager()`
- `public void remove(BaseEntity entity)`

14.2 Class `LabelEntity`

The entity represents the information for the category's label in the database. If there are several categories with a similar name, like "Teaching", they can all have the same label entity.

14.2.1 Declaration

```
public class LabelEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

14.2.2 Constructors

- `LabelEntity`

```
public LabelEntity()
```

14.2.3 Methods

- `equals`

```
public boolean equals(java.lang.Object arg0)
```

- `getCategoryEntities`

```
public java.util.List getCategoryEntities()
```

- **getText**

```
public java.lang.String getText()
```

- **hashCode**

```
public native int hashCode()
```

- **setCategoryEntities**

```
public void setCategoryEntities(java.util.List categoryEntities)
```

- **setText**

```
public void setText(java.lang.String text)
```

- **toString**

```
public java.lang.String toString()
```

14.2.4 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in [26.2](#), page [158](#))

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

Chapter 15

Package com.moveatis.mail

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The class implements the Mailer interface, and takes care of mailing to the users the requested information.	

15.1 Class MailerBean

The class implements the Mailer interface, and takes care of mailing to the users the requested information.

15.1.1 Declaration

```
public class MailerBean
    extends java.lang.Object implements com.moveatis.interfaces.Mailer
```

15.1.2 Constructors

- MailerBean

```
public MailerBean()
```

15.1.3 Methods

- sendEmail

```
public com.moveatis.enums.MailStatus sendEmail(java.lang.String
    [] recipients, java.lang.String subject, java.lang.String
    message)
```

- Description

Sends email to the recipients.

- **Parameters**

- * **recipients** – An array of the users to whom the mail is sent.
- * **subject** – The subject of the mail.
- * **message** – The message for the mail.

- **Returns** – enum that states if the mail was sent successfully or not.

- **sendEmailWithAttachment**

```
public com.moveatis.enums.MailStatus sendEmailWithAttachment(  
    java.lang.String [] recipients , java.lang.String subject , java.  
    lang.String message , java.io.File [] attachmentFiles)
```

- **Description**

Sends email with the given attachment files.

- **Parameters**

- * **recipients** – An array of the users to whom the mail is sent.
- * **subject** – The subject of the mail.
- * **message** – The message for the mail.
- * **attachmentFiles** – An array of the files to be attached to the mail.

- **Returns** – enum that states if the mail was sent successfully or not.

Chapter 16

Package com.moveatis.managedbeans

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The bean implements commonly used methods to validate user input.

16.1 Class `ApplicationManagedBean`

The bean that serves the application installation view.

16.1.1 Declaration

```
public class ApplicationManagedBean
    extends java.lang.Object
```

16.1.2 Constructors

- `ApplicationManagedBean`

```
    public ApplicationManagedBean ()
```

16.1.3 Methods

- `doInstall`

```
    public java.lang.String doInstall ()
```

- **Description**

- Redirects the user to the installation URI if the application has not been installed yet. If the application is running on localhost server it redirects to the localhost version of the installation URI.

- `getInstalled`

```
    public java.lang.Boolean getInstalled ()
```

- **Description**

- Returns true if the application has been installed, otherwise false.

16.2 Class `CategoryManagedBean`

The bean that serves category management in the appropriate views.

16.2.1 Declaration

```
public class CategoryManagedBean
    extends java.lang.Object implements java.io.Serializable
```

16.2.2 Constructors

- **CategoryManagedBean**

```
public CategoryManagedBean()
```

- **Description**

Creates a new instance of CategoryManagedBean.

16.2.3 Methods

- **addCategory**

```
public void addCategory(ActionEvent event)
```

- **createNewCategory**

```
public void createNewCategory(com.moveatis.category.
    CategorySetEntity categorySetEntity)
```

- **Description**

Creates a new category entity and adds it to the given category set.

- **getCanOverlap**

```
public java.lang.Boolean getCanOverlap()
```

- **getDescription**

```
public java.lang.String getDescription()
```

- **getLabel**

```
public java.lang.String getLabel()
```

- **setCanOverlap**

```
public void setCanOverlap(java.lang.Boolean canOverlap)
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

16.3 Class CategorySelectionManagedBean

The bean that serves the category selection view.

16.3.1 Declaration

```
public class CategorySelectionManagedBean  
    extends java.lang.Object implements java.io.Serializable
```

16.3.2 Constructors

- **CategorySelectionManagedBean**

```
public CategorySelectionManagedBean()
```

- **Description**

Creates a new instance of CategoryManagedBean.

16.3.3 Methods

- **addDefaultCategorySet**

```
public void addDefaultCategorySet()
```

- **Description**

Adds the selected default category set for the observation.

- **addNewCategorySet**

```
public void addNewCategorySet()
```

- **Description**

Adds a new category set for the observation if newCategorySetName isn't empty.

- **addPrivateCategorySet**


```
public void addPrivateCategorySet ()
```

– **Description**

Adds the selected private category set for the observation.

• **checkCategories**

```
public java.lang.String checkCategories ()
```

– **Description**

Checks the categories in use before letting the user continue to observation. The categories in the same category set should have different names. The categories shouldn't have empty names. At least one category should be selected for the observation. It shows an error message if the categories aren't ok.

– **Returns** – "categoriesok" if the categories were ok, otherwise an empty string.

• **getCategorySetsInUse**

```
public java.util.List getCategorySetsInUse ()
```

– **Description**

Gets the category sets in use.

• **getDefaultCategorySets**

```
public java.util.List getDefaultCategorySets ()
```

– **Description**

Gets the default category sets.

• **getEventGroup**

```
public com.moveatis.event.EventGroupEntity getEventGroup ()
```

– **Description**

Gets the event group.

• **getNewCategorySetName**

```
public java.lang.String getNewCategorySetName ()
```

– **Description**

Gets the new category set name.

- **getPrivateCategorySets**

```
public java.util.List getPrivateCategorySets()
```

- **Description**

- Gets the private category sets.

- **getSelectedDefaultCategorySet**

```
public java.lang.Long getSelectedDefaultCategorySet()
```

- **Description**

- Gets the selected default category set.

- **getSelectedPrivateCategorySet**

```
public java.lang.Long getSelectedPrivateCategorySet()
```

- **Description**

- Gets the selected private category set.

- **init**

```
public void init()
```

- **Description**

- Initializes properly all the members needed for category selection.

- **isContinueDisabled**

```
public boolean isContinueDisabled()
```

- **Description**

- Checks if the continue button should be disabled. The button is disabled if no category sets have been added for the observation or if some of the added category sets are empty.

- **Returns** – True if the continue button should be disabled.

- **removeCategorySet**

```
public void removeCategorySet(com.moveatis.observation.  
ObservationCategorySet categorySet)
```

- **Description**

Removes the given category set from the observation.

- **setNewCategorySetName**

```
public void setNewCategorySetName(java.lang.String
    newCategorySetName)
```

- **Description**

Sets the new category set name.

- **setSelectedDefaultCategorySet**

```
public void setSelectedDefaultCategorySet(java.lang.Long
    selectedDefaultCategorySet)
```

- **Description**

Sets the selected default category set.

- **setSelectedPrivateCategorySet**

```
public void setSelectedPrivateCategorySet(java.lang.Long
    selectedPrivateCategorySet)
```

- **Description**

Sets the selected private category set.

16.4 Class CategorySetManagedBean

The bean for managing category sets in the appropriate views.

16.4.1 Declaration

```
public class CategorySetManagedBean
    extends java.lang.Object implements java.io.Serializable
```

16.4.2 Constructors

- **CategorySetManagedBean**

```
public CategorySetManagedBean()
```

- **Description**

Creates a new instance of CategorySetManagedBean.

16.4.3 Methods

- **createAndEditCategorySet**

```
public void createAndEditCategorySet(com.moveatis.event.
    EventGroupEntity eventGroupEntity ,com.moveatis.category.
    CategorySetEntity categorySetEntity ,java.util.List
    newCategoryEntities)
```

- **Description**

The method is used for creating and editing the category set. As it's fairly complex, see the comments in the code to get better understanding what it does.

- **Parameters**

- * `eventGroupEntity` – The event group the category set belongs to.
- * `categorySetEntity` – The category set to be created or edited.
- * `newCategoryEntities` – The categories belonging to the category set.

- **createNewCategorySet**

```
public void createNewCategorySet(com.moveatis.event.
    EventGroupEntity eventGroupEntity)
```

- **Description**

Creates a new category set and adds it to the given event group.

- **Parameters**

- * `eventGroupEntity` – The event group into which the new category set is added.

- **getDescription**

```
public java.lang.String getDescription()
```

- **getName**

```
public java.lang.String getName()
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setName**

```
public void setName(java.lang.String name)
```

16.5 Class ControlManagedBean

The bean class for managing the control page view.

16.5.1 Declaration

```
public class ControlManagedBean
    extends java.lang.Object implements java.io.Serializable
```

16.5.2 Constructors

- **ControlManagedBean**

```
    public ControlManagedBean()
```

16.5.3 Methods

- **addEventGroup**

```
    public void addEventGroup(com.moveatis.event.EventGroupEntity
        eventGroup)
```

- **Description**

Adds a new event group to the event groups.

- **addNewCategory**

```
    public void addNewCategory()
```

- **Description**

Adds a new category in the view.

- **addNewCategorySet**

```
    public void addNewCategorySet()
```

- **Description**

Adds a new category set in the view.

- **fetchEventGroups**

```
    protected void fetchEventGroups()
```

- **Description**

Fetches the event groups of the user.

- **getCategories**

```
public java.util.List getCategories()
```

- **Description**

Gets the categories.

- **getCategoryTypes**

```
public com.moveatis.category.CategoryType[] getCategoryTypes()
```

- **Description**

Gets the category types.

- **getEventGroups**

```
public java.util.List getEventGroups()
```

- **Description**

Gets the event groups.

- **getObservationEventGroupName**

```
public java.lang.String getObservationEventGroupName(com.  
moveatis.observation.ObservationEntity observationEntity)
```

- **Description**

Gets the name of the event group of the observation.

- **getObservations**

```
public java.util.Set getObservations(com.moveatis.event.  
EventGroupEntity eventGroup)
```

- **Description**

Gets the observations of the event group.

- **getObserverName**

```
public java.lang.String getObserverName()
```

- **Description**

Gets the name of the observer of the selected observation entity.

- **getOtherObservations**

```
public java.util.List getOtherObservations ()
```

- **Description**

Gets the other observations.

- **getSelectedCategory**

```
public com.moveatis.category.CategoryEntity getSelectedCategory  
()
```

- **Description**

Gets the selected category.

- **getSelectedCategorySet**

```
public com.moveatis.category.CategorySetEntity  
getSelectedCategorySet ()
```

- **Description**

Gets the selected category set.

- **getSelectedEventGroup**

```
public com.moveatis.event.EventGroupEntity getSelectedEventGroup  
()
```

- **Description**

Gets the selected event group.

- **getSelectedObservation**

```
public com.moveatis.observation.ObservationEntity  
getSelectedObservation ()
```

- **Description**

Gets the selected observation.

- **hasGroupKey**

```
public boolean hasGroupKey(com.moveatis.event.EventGroupEntity  
    eventGroup)
```

– **Description**

Checks if the event group entity has a group key.

• **init**

```
public void init()
```

– **Description**

Initializes the bean appropriately.

• **isCreatingNewEventGroup**

```
public boolean isCreatingNewEventGroup()
```

– **Description**

Returns true if a new event group is being created.

• **msToUnits**

```
public java.lang.String msToUnits(long ms)
```

– **Description**

Converts milliseconds to string with time units h, m, s.

– **Parameters**

* **ms** – The time to be converted in milliseconds.

– **Returns** – String of the converted time units.

• **newObservation**

```
public java.lang.String newObservation()
```

– **Description**

Initializes a new observation and redirects to the category selection view.

– **Returns** – The navigation rule string that redirects to the category selection view.

• **onCategoryReorder**

```
public void onCategoryReorder(ReorderEvent event)
```


- **Description**

ReorderEvent listener for categories reorder.

- **onEditEventGroup**

```
public void onEditEventGroup(RowEditEvent event)
```

- **Description**

Listener for event group row edit.

- **onEditObservation**

```
public void onEditObservation()
```

- **Description**

Listener for observation editing.

- **removeCategory**

```
public void removeCategory()
```

- **Description**

Removes the selected category from the view, reorders the categories and selects a new category.

- **removeCategorySet**

```
public void removeCategorySet()
```

- **Description**

Removes the selected category set from the database.

- **removeEventGroup**

```
public void removeEventGroup(com.moveatis.event.EventGroupEntity  
    eventGroup)
```

- **Description**

Removes the event group from the database.

- **removeObservation**

```
public void removeObservation()
```

- **Description**

Removes the selected observation from the database.

- **saveCategorySet**

```
public void saveCategorySet ()
```

- **Description**

Saves the selected category set.

- **setCategories**

```
public void setCategories(java.util.List categories)
```

- **Description**

Sets the categories.

- **setCreatingNewEventGroup**

```
public void setCreatingNewEventGroup(boolean  
creatingNewEventGroup)
```

- **Description**

Sets whether a new event group is being created or not.

- **setEventGroups**

```
public void setEventGroups(java.util.List eventGroups)
```

- **Description**

Sets the event groups.

- **setOtherObservations**

```
public void setOtherObservations(java.util.List  
otherObservations)
```

- **Description**

Sets the other observations.

- **setSelectedCategory**

```
public void setSelectedCategory(com.moveatis.category.  
    CategoryEntity selectedCategory)
```

- **Description**
Sets the selected category.

- **setSelectedCategorySet**

```
public void setSelectedCategorySet(com.moveatis.category.  
    CategorySetEntity selectedCategorySet)
```

- **Description**
Sets the selected category set.

- **setSelectedEventGroup**

```
public void setSelectedEventGroup(com.moveatis.event.  
    EventGroupEntity selectedEventGroup)
```

- **Description**
Sets the selected event group.

- **setSelectedObservation**

```
public void setSelectedObservation(com.moveatis.observation.  
    ObservationEntity selectedObservation)
```

- **Description**
Sets the selected observation.

- **showObservationInSummaryPage**

```
public java.lang.String showObservationInSummaryPage()
```

- **Description**
Shows the selected observation in the summary page.
- **Returns** – The navigation rule string that redirects to the summary page.

16.6 Class EventGroupManagedBean

The bean is used to manage event groups in the appropriate views.

16.6.1 Declaration

```
public class EventGroupManagedBean
    extends java.lang.Object
```

16.6.2 Constructors

- **EventGroupManagedBean**

```
public EventGroupManagedBean ()
```

16.6.3 Methods

- **addGroupKey**

```
public void addGroupKey ()
```

- **addGroupKey**

```
public void addGroupKey (com.moveatis.event.EventGroupEntity
    eventGroup)
```

- **Description**

- Adds the group key to the specified event group. The group key is used to identify the event group.

- **Parameters**

- * `eventGroup` – The event group into which the the group key is added.

- **createNewEventGroup**

```
public void createNewEventGroup ()
```

- **Description**

- Creates a new event group.

- **editGroupKey**

```
public void editGroupKey (com.moveatis.event.EventGroupEntity
    eventGroup, java.lang.String newGroupKey)
```

- **Description**

- Sets a new group key for the event group.

- **Parameters**

- * `eventGroup` – The event group to edit.
- * `newGroupKey` – The new group key for the event group.

- **getEventGroupDescription**

```
public java.lang.String getEventGroupDescription()
```

- **getEventGroupKey**

```
public java.lang.String getEventGroupKey()
```

- **getEventGroupName**

```
public java.lang.String getEventGroupName()
```

- **getVisibility**

```
public java.lang.String getVisibility()
```

- **init**

```
public void init()
```

- **isGroupKeySelected**

```
public boolean isGroupKeySelected()
```

- **removeGroupKey**

```
public void removeGroupKey(com.moveatis.event.EventGroupEntity  
    eventGroup)
```

- **Description**

- Removes the group key from the given event group.

- **setEventGroupDescription**

```
public void setEventGroupDescription(java.lang.String  
    eventGroupDescription)
```

- **setEventGroupKey**

```
public void setEventGroupKey(java.lang.String eventGroupKey)
```

- **setEventGroupName**

```
public void setEventGroupName(java.lang.String eventGroupName)
```

- **setGroupKeySelected**

```
public void setGroupKeySelected(boolean groupKeySelected)
```

- **setVisibility**

```
public void setVisibility(java.lang.String visibility)
```

16.7 Class EventManagedBean

The bean is used to manage events in the appropriate views.

16.7.1 Declaration

```
public class EventManagedBean  
    extends java.lang.Object
```

16.7.2 Constructors

- **EventManagedBean**

```
public EventManagedBean()
```

- **Description**

Creates a new instance of EventManagedBean.

16.7.3 Methods

- **createNewEvent**

```
public void createNewEvent(com.moveatis.event.EventGroupEntity  
    eventGroupEntity)
```

- **Description**

Creates a new event for the event group.

- **getDescription**

```
public java.lang.String getDescription()
```

- **getLabel**

```
public java.lang.String getLabel()
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

16.8 Class LoginManagedBean

The bean that manages the login for three types of users: the public user, the tag user and the identified user.

16.8.1 Declaration

```
public class LoginManagedBean
    extends java.lang.Object
```

16.8.2 Constructors

- **LoginManagedBean**

```
public LoginManagedBean()
```

- **Description**

Creates a new instance of LoginManagedBean.

16.8.3 Methods

- **doAnonymityLogin**

```
public java.lang.String doAnonymityLogin()
```

- **Description**

Sets the session for a public user.

- **Returns** – The navigation rule string that redirects to the category selection view.

- **doIdentityLogin**

```
public void doIdentityLogin(ActionEvent actionEvent)
```

- **Description**

Allows users to login from different views. On May 2016, it's not working as supposed, since Shibboleth nulls the session on redirect.

- **Parameters**

* **actionEvent** – The action event that activated the login button.

- **doTagLogin**

```
public java.lang.String doTagLogin()
```

- **Description**

Sets the session for a particular group key.

- **Returns** – The navigation rule string that redirects to the category selection view.

- **getLoginOutcome**

```
public java.lang.String getLoginOutcome()
```

- **getMessages**

```
public java.util.ResourceBundle getMessages()
```

- **getTag**

```
public java.lang.String getTag()
```

- **setLoginOutcome**

```
public void setLoginOutcome(java.lang.String loginOutcome)
```

- **setMessages**

```
public void setMessages(java.util.ResourceBundle messages)
```

- **setTag**

```
public void setTag(java.lang.String tag)
```


16.9 Class ObservationManagedBean

The bean is used to manage observations in the appropriate views.

16.9.1 Declaration

```
public class ObservationManagedBean
    extends java.lang.Object implements java.io.Serializable
```

16.9.2 Constructors

- **ObservationManagedBean**

```
public ObservationManagedBean ()
```

16.9.3 Methods

- **addRecord**

```
public void addRecord(com.moveatis.records.RecordEntity record)
```

- **Description**

- Adds a record to the observation.

- **Parameters**

- * **record** – The record to be added to the observation.

- **destroy**

```
public void destroy ()
```

- **Description**

- Removes the observations the user doesn't want to save to database when the session timeout happens and the bean is destroyed.

- **getCategorySetsInUse**

```
public java.util.List getCategorySetsInUse ()
```

- **Description**

- Gets the observation categories to be used in the observation.

- **getEventEntity**

```
public com.moveatis.event.EventEntity getEventEntity()
```

- **getNextTag**

```
public java.lang.Long getNextTag()
```

- **getObservationEntity**

```
public com.moveatis.observation.ObservationEntity  
getObservationEntity()
```

- **Description**

Returns the current observation entity.

- **init**

```
public void init()
```

- **resetCategorySetsInUse**

```
public void resetCategorySetsInUse()
```

- **saveObservation**

```
public void saveObservation()
```

- **Description**

The method is called from REST API to save the records to the observation.

- **saveObservationToDatabase**

```
public void saveObservationToDatabase()
```

- **Description**

The method saves the observation to the database.

- **setCategorySetsInUse**

```
public void setCategorySetsInUse(java.util.List  
categorySetsInUse)
```

- **Description**

Sets the observation categories to be used in the observation.

- **setEventEntity**

```
public void setEventEntity(com.moveatis.event.EventEntity
    eventEntity)
```

- **setObservationDuration**

```
public void setObservationDuration(long duration)
```

- **setObservationEntity**

```
public void setObservationEntity(com.moveatis.observation.
    ObservationEntity observationEntity)
```

- **Description**

Sets the current observation entity.

- **setObservationName**

```
public void setObservationName(java.lang.String name)
```

- **startObservation**

```
public void startObservation()
```

- **Description**

Creates a new observation entity and initializes it to be used in a new observation.

16.10 Class SummaryManagedBean

The bean that serves the summary page. It is responsible for creating the timeline model and for getting the attributes of an observation for the summary.

16.10.1 Declaration

```
public class SummaryManagedBean
    extends java.lang.Object implements java.io.Serializable
```

16.10.2 Constructors

- **SummaryManagedBean**

```
public SummaryManagedBean()
```

- **Description**

The default constructor initializes the timeline options.

16.10.3 Methods

- **doSelectedSaveOperation**

```
public void doSelectedSaveOperation()
```

- **Description**

Do all the save operations selected by the user.

- **downloadCurrentObservation**

```
public void downloadCurrentObservation() throws java.io.  
IOException
```

- **Description**

Downloads the current observation.

- **Throws**

* `java.io.IOException` –

- **getDuration**

```
public java.util.Date getDuration()
```

- **getMailOptionChecked**

```
public boolean getMailOptionChecked()
```

- **getMax**

```
public java.util.Date getMax()
```

- **Description**

Gets the maximum date of the timeline. The user cannot move the timeline after that date.

- **getMin**

```
public java.util.Date getMin()
```

- **Description**

Gets the minimum date of the timeline. The user cannot move the timeline before that date.

- **getObservation**

```
public com.moveatis.observation.ObservationEntity getObservation()  
()
```

- **getRecipientEmail**

```
public java.lang.String getRecipientEmail()
```

- **getSelectedSaveOptions**

```
public java.util.List getSelectedSaveOptions()
```

- **getStart**

```
public java.util.Date getStart()
```

- **Description**

- Gets the start date of the timeline.

- **getTimeline**

```
public TimelineModel getTimeline()
```

- **Description**

- Gets the timeline model.

- **getZoomMax**

```
public long getZoomMax()
```

- **Description**

- Gets the maximum zoom interval for the timeline in milliseconds.

- **getZoomMin**

```
public long getZoomMin()
```

- **Description**

- Gets the minimum zoom interval for the timeline in milliseconds.

- **initialize**

```
protected void initialize()
```

– **Description**

The post constructor creates the timeline on request.

• **isObservationSaved**

```
public boolean isObservationSaved()
```

• **mailCurrentObservation**

```
public void mailCurrentObservation()
```

• **saveCurrentObservation**

```
public void saveCurrentObservation()
```

– **Description**

Saves the current observation to the database.

• **setObservation**

```
public void setObservation(com.moveatis.observation.  
ObservationEntity observation)
```

• **setObservationSaved**

```
public void setObservationSaved(boolean observationSaved)
```

• **setRecipientEmail**

```
public void setRecipientEmail(java.lang.String recipientEmail)
```

• **setSelectedSaveOptions**

```
public void setSelectedSaveOptions(java.util.List  
selectedSaveOptions)
```

• **showObservationSavedMessage**

```
public void showObservationSavedMessage()
```

– **Description**

Shows a message of the saved observation.

16.11 Class SuperUserManagedBean

The bean sets the superuser role for the identified users. It is not used in the current version of Moveatis.

16.11.1 Declaration

```
public class SuperUserManagedBean
    extends java.lang.Object
```

16.11.2 Constructors

- **SuperUserManagedBean**

```
    public SuperUserManagedBean()
```

16.11.3 Methods

- **addSuperUserRights**

```
    public void addSuperUserRights(com.moveatis.user.
        IdentifiedUserEntity userEntity)
```

- **Description**

- Adds the superuser role to the given identified user.

- **addSuperUserRights**

```
    public void addSuperUserRights(com.moveatis.user.
        IdentifiedUserEntity userEntity ,java.util.Date startDate ,java
        .util.Date endDate)
```

- **Description**

- Adds the superuser role for the given time period to the given identified user.

- **listSuperUsers**

```
    public java.util.List listSuperUsers()
```

- **removeSuperUserRights**

```
    public void removeSuperUserRights(com.moveatis.user.
        IdentifiedUserEntity userEntity)
```

- **Description**

- Removes the superuser role from the given identified user.

16.12 Class TimeManagedBean

Provides time related attributes like time zone.

16.12.1 Declaration

```
public class TimeManagedBean
    extends java.lang.Object
```

16.12.2 Constructors

- **TimeManagedBean**

```
    public TimeManagedBean()
```

16.12.3 Methods

- **getServerTimeZone**

```
    public java.util.TimeZone getServerTimeZone()
```

- **getUserTimeZone**

```
    public java.util.TimeZone getUserTimeZone()
```

16.13 Class UserManagedBean

The bean manages user-related information in a session.

16.13.1 Declaration

```
public class UserManagedBean
    extends java.lang.Object implements java.io.Serializable
```

16.13.2 Constructors

- **UserManagedBean**

```
    public UserManagedBean()
```

- **Description**

Creates a new instance of UserManagedBean.

16.13.3 Methods

- **changeLocale**

```
public void changeLocale(ActionEvent event)
```

- **getLanguageString**

```
public java.lang.String getLanguageString()
```

- **getLocale**

```
public java.util.Locale getLocale()
```

- **Description**

- Gets the locale to use in the user interface of the application.

- **getOptionLanguageString**

```
public java.lang.String getOptionLanguageString()
```

- **getTimeZone**

```
public java.util.TimeZone getTimeZone()
```

- **setLanguageString**

```
public void setLanguageString(java.lang.String languageString)
```

- **setLocale**

```
public void setLocale(java.util.Locale locale)
```

- **setLocale**

```
public void setLocale(java.lang.String language)
```

- **setOptionLanguageString**

```
public void setOptionLanguageString(java.lang.String  
optionLanguageString)
```

- **setTimeZone**

```
public void setTimeZone(java.util.TimeZone timeZone)
```

16.14 Class ValidationManagedBean

The bean implements commonly used methods to validate user input.

16.14.1 Declaration

```
public class ValidationManagedBean
    extends java.lang.Object
```

16.14.2 Constructors

- **ValidationManagedBean**

```
    public ValidationManagedBean()
```

16.14.3 Methods

- **validateGroupKey**

```
    public void validateGroupKey(FacesContext context, UIComponent
        component, java.lang.Object value)
```

- **validateLongString**

```
    public void validateLongString(FacesContext context, UIComponent
        component, java.lang.Object value)
```

- **validateShortString**

```
    public void validateShortString(FacesContext context, UIComponent
        component, java.lang.Object value)
```

- **validateStringForJsAndHtml**

```
    public void validateStringForJsAndHtml(FacesContext context,
        UIComponent component, java.lang.Object value)
```

Chapter 17

Package com.moveatis.observation

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17.1 Class ObservationBean

The EJB manages observations..

17.1.1 Declaration

```
public class ObservationBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Observation , java.io.Serializable
```

17.1.2 Constructors

- **ObservationBean**

```
public ObservationBean ()
```

17.1.3 Methods

- **create**

```
public void create(ObservationEntity observationEntity)
```

- **Description**

Persists the observations to the database.

- **Parameters**

- * `observationEntity` – The observatio entity to be persisted.

- **findAllByObserver**

```
public java.util.List findAllByObserver(com.moveatis.user.  
AbstractUser observer)
```

- **Description**

Finds and returns all observations for the specific user.

- **Parameters**

- * `observer` – The user, whose observations are to be searched.

- **Returns** – A list of the observations for the user.

- **findByEventsNotOwned**

```
public java.util.List findByEventsNotOwned(com.moveatis.user.  
AbstractUser observer)
```

- **Description**

Finds the observations that are made for events that the specified user does not own.

- **Parameters**

- * `observer` – The user, whose observations are to be searched.

- **Returns** – A list of the observations.

- **findRecords**

```
public java.util.List findRecords(java.lang.Object id)
```

- **Description**

Finds a list of the records for the observation with the given id.

- **Parameters**

- * `id` – The id of the observation.

- **Returns** – A list of the records.

- **findWithoutEvent**

```
public java.util.List findWithoutEvent(com.moveatis.user.  
    AbstractUser observer)
```

- **Description**
Finds the observations for the user, which have no event attached to them.
- **Parameters**
 - * **observer** – The user, whose observations are to be searched.
- **Returns** – A list of the observations.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

- **remove**

```
public void remove(ObservationEntity observationEntity)
```

- **Description**
Removes the observation and also removes the observation from the event it was associated with.
- **Parameters**
 - * **observationEntity** – The observation to be removed.

- **removeUnsavedObservation**

```
public void removeUnsavedObservation(ObservationEntity  
    observationEntity)
```

- **Description**
Permanently removes the observation, which the user did not set to be saved into the database.
- **Parameters**
 - * **observationEntity** – The observation to be removed.

17.1.4 Members inherited from class AbstractBean

`com.moveatis.abstracts.AbstractBean` (in [26.1](#), page [156](#))

- `public int count()`
- `public void create(BaseEntity entity)`
- `public void edit(BaseEntity entity)`
- `public BaseEntity find(java.lang.Object id)`
- `public List findAll()`
- `public List findRange(int[] range)`
- `protected abstract EntityManager getEntityManager()`
- `public void remove(BaseEntity entity)`

17.2 Class ObservationCategory

The observation has its own categories, so renaming the original category does not affect on old observations.

17.2.1 Declaration

```
public class ObservationCategory
    extends java.lang.Object implements java.io.Serializable
```

17.2.2 Constructors

- **ObservationCategory**

```
    public ObservationCategory()
```

- **ObservationCategory**

```
    public ObservationCategory(ObservationCategory other)
```

17.2.3 Methods

- **getName**

```
    public java.lang.String getName()
```

- **getTag**

```
    public java.lang.Long getTag()
```

- **getType**

```
    public com.moveatis.category.CategoryType getType()
```

- **getTypeAsBoolean**

```
public boolean getTypeAsBoolean()
```

- **Description**

- Returns true if the type of the category is COUNTED. The method is used with the PrimeFaces boolean button.

- **getTypeAsInt**

```
public int getTypeAsInt()
```

- **setName**

```
public final void setName(java.lang.String name)
```

- **setTag**

```
public void setTag(java.lang.Long tag)
```

- **setType**

```
public void setType(com.moveatis.category.CategoryType type)
```

- **setTypeAsBoolean**

```
public void setTypeAsBoolean(boolean value)
```

- **Description**

- Sets the type of the category based on the given boolean value. If the value is true, the type will be COUNTED. Otherwise the type will be TIMED. The method is used with the PrimeFaces boolean button.

17.3 Class ObservationCategorySet

The observation has its own category sets, so renaming or removing original category sets does not alter old observations.

17.3.1 Declaration

```
public class ObservationCategorySet
    extends java.lang.Object implements java.io.Serializable
```

17.3.2 Constructors

- **ObservationCategorySet**

```
public ObservationCategorySet(java.lang.Long id, java.lang.String
    name)
```

- **Description**

Creates a new instance of ObservationCategorySet with the given id and name.

17.3.3 Methods

- **add**

```
public void add(com.moveatis.category.CategoryType type, java.
    lang.Long tag, java.lang.String name)
```

- **Description**

Adds a new category to the list of the categories.

- **Parameters**

- * **type** – The type of the new category.
- * **tag** – The tag of the new category.
- * **name** – The name of the new category.

- **add**

```
public void add(ObservationCategory category)
```

- **Description**

Adds the given category to the list of the categories.

- **Parameters**

- * **category** – The category to be added.

- **addEmpty**

```
public void addEmpty()
```

- **Description**

Adds an empty category to the list of the categories.

- **getCategories**

```
public java.util.List getCategories()
```

- **Description**

- Returns the list of the categories in the category set.

- **getId**

```
public java.lang.Long getId()
```

- **getName**

```
public java.lang.String getName()
```

- **remove**

```
public void remove(ObservationCategory category)
```

- **Description**

- Returns the given category from the list of the categories.

- **Parameters**

- * `category` – The category to be removed.

17.4 Class ObservationCategorySetList

The observation has its own category sets, and this class has a list, which holds those category sets.

17.4.1 Declaration

```
public class ObservationCategorySetList  
    extends java.lang.Object
```

17.4.2 Constructors

- **ObservationCategorySetList**

```
public ObservationCategorySetList()
```

17.4.3 Methods

- **add**

```
public void add(ObservationCategorySet categorySet)
```

- **Description**

Adds the given category set to the category set list.

- **addClone**

```
public void addClone(ObservationCategorySet categorySet)
```

- **Description**

Creates a clone of the given category set and adds it to the category set list.

- **find**

```
public ObservationCategorySet find(java.lang.Long id)
```

- **Description**

Searches for the category set with the given id from the category set list. Returns the category if it was found and null otherwise.

- **getCategorySets**

```
public java.util.List getCategorySets()
```

- **remove**

```
public void remove(ObservationCategorySet categorySet)
```

- **Description**

Removes the given category set from the category set list.

- **setCategorySets**

```
public void setCategorySets(java.util.List categorySets)
```

17.5 Class ObservationEntity

The entity represents the observation data, that is saved to the database.

17.5.1 Declaration

```
public class ObservationEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

17.5.2 Constructors

- **ObservationEntity**

```
    public ObservationEntity()
```

17.5.3 Methods

- **addRecord**

```
    public void addRecord(com.moveatis.records.RecordEntity record)
```

- **equals**

```
    public boolean equals(java.lang.Object arg0)
```

- **getDescription**

```
    public java.lang.String getDescription()
```

- **getDuration**

```
    public long getDuration()
```

- **getEvent**

```
    public com.moveatis.event.EventEntity getEvent()
```

- **getId**

```
    protected java.lang.Long getId()
```

- **getName**

```
    public java.lang.String getName()
```

- **getObservationCategorySets**

```
public java.util.Set getObservationCategorySets()
```

- **getObserver**

```
public com.moveatis.user.AbstractUser getObserver()
```

- **getRecords**

```
public java.util.List getRecords()
```

- **getTarget**

```
public java.lang.String getTarget()
```

- **getUserWantsToSaveToDatabase**

```
public java.lang.Boolean getUserWantsToSaveToDatabase()
```

- **hashCode**

```
public native int hashCode()
```

- **setDescription**

```
public void setDescription(java.lang.String description)
```

- **setDuration**

```
public void setDuration(long duration)
```

- **setEvent**

```
public void setEvent(com.moveatis.event.EventEntity event)
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **setName**

```
public void setName(java.lang.String name)
```

- **setObservationCategorySets**

```
public void setObservationCategorySets(java.util.Set
    observationCategorySets)
```

- **setObserver**

```
public void setObserver(com.moveatis.user.AbstractUser observer)
```

- **setRecords**

```
public void setRecords(java.util.List records)
```

- **setTarget**

```
public void setTarget(java.lang.String target)
```

- **setUserWantsToSaveToDatabase**

```
public void setUserWantsToSaveToDatabase(java.lang.Boolean
    userWantsToSaveToDatabase)
```

- **toString**

```
public java.lang.String toString()
```

17.5.4 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in [26.2](#), page [158](#))

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

Chapter 18

Package `com.moveatis.providers`

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Classes	
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The CDI bean produces a resource bundle for the transient CDI beans.	

18.1 Class `MessageProvider`

The CDI bean produces a resource bundle for the transient CDI beans.

18.1.1 Declaration

```
public class MessageProvider
    extends java.lang.Object
```

18.1.2 Constructors

- `MessageProvider`

```
    public MessageProvider ()
```

18.1.3 Methods

- `getBundle`

```
    public java.util.ResourceBundle getBundle ()
```

Chapter 19

Package com.moveatis.records

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Classes	
RecordBean	124
The EJB for managing records.	
RecordEntity	125
The entity represent the data of a record, which will be persisted to the database.	

19.1 Class RecordBean

The EJB for managing records. Holds the information for the analysis of an observation.

19.1.1 Declaration

```
public class RecordBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Record
```

19.1.2 Constructors

- **RecordBean**

```
public RecordBean()
```

19.1.3 Methods

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

19.1.4 Members inherited from class AbstractBean

`com.moveatis.abstracts.AbstractBean` (in [26.1](#), page [156](#))

- `public int count()`
- `public void create(BaseEntity entity)`
- `public void edit(BaseEntity entity)`
- `public BaseEntity find(java.lang.Object id)`
- `public List findAll()`
- `public List findRange(int[] range)`
- `protected abstract EntityManager getEntityManager()`
- `public void remove(BaseEntity entity)`

19.2 Class RecordEntity

The entity represent the data of a record, which will be persisted to the database.

19.2.1 Declaration

```
public class RecordEntity
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

19.2.2 Constructors

- **RecordEntity**

```
    public RecordEntity()
```

19.2.3 Methods

- **equals**

```
    public boolean equals(java.lang.Object arg0)
```

- **getCategory**

```
    public com.moveatis.observation.ObservationCategory getCategory()
    ()
```

- **getComment**

```
    public java.lang.String getComment()
```

- **getEndTime**

```
    public java.lang.Long getEndTime()
```


- **getObservation**

```
public com.moveatis.observation.ObservationEntity getObservation()  
()
```

- **getStartTime**

```
public java.lang.Long getStartTime()
```

- **getVoiceComment**

```
public java.io.File getVoiceComment()
```

- **Description**

- Not used in version 1.0.

- **Returns** – The file for the voice comment.

- **hashCode**

```
public native int hashCode()
```

- **setComment**

```
public void setComment(java.lang.String comment)
```

- **setEndTime**

```
public void setEndTime(java.lang.Long endTime)
```

- **setObservation**

```
public void setObservation(com.moveatis.observation.  
ObservationEntity observation)
```

- **setObservationCategory**

```
public void setObservationCategory(com.moveatis.observation.  
ObservationCategory category)
```

- **setStartTime**

```
public void setStartTime(java.lang.Long startTime)
```

- **setVoiceComment**

```
public void setVoiceComment(java.io.File voiceComment)
```

- **Description**

- Not used in version 1.0.

- **Parameters**

- * `voiceComment` – The file that holds the voice comment.

- **toString**

```
public java.lang.String toString()
```

19.2.4 Members inherited from class **BaseEntity**

`com.moveatis.abstracts.BaseEntity` (in [26.2](#), page [158](#))

- `public Date getCreated()`
- `protected Long getId()`
- `protected Date getRemoved()`
- `protected id`
- `public void setCreated()`
- `protected void setId(java.lang.Long id)`
- `protected void setRemoved()`

Chapter 20

Package com.moveatis.restful

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Classes	
MoveatisRestApplication 128	
RestApplication for RESTfull actions in Moveatis.	
NotFoundExceptionHandler 129	
Custom NotFound exception for those REST API calls, that are not to /webapi or RecordListenerBean.	
RecordListenerBean 129	
The bean manages REST API for adding records to an observation as well as starting and stopping an observation.	

20.1 Class MoveatisRestApplication

RestApplication for RESTfull actions in Moveatis. Includes actions for adding records to an observation as well as starting and stopping an observation.

20.1.1 Declaration

```
public class MoveatisRestApplication
    extends Application
```

20.1.2 Constructors

- **MoveatisRestApplication**

```
    public MoveatisRestApplication ()
```

20.1.3 Methods

- **getClasses**

```
    public java.util.Set getClasses ()
```

20.2 Class NotFoundExceptionMapper

Custom NotFoundException for those REST API calls, that are not to /webapi or RecordListenerBean.

20.2.1 Declaration

```
public class NotFoundExceptionMapper
    extends java.lang.Object
```

20.2.2 Constructors

- **NotFoundExceptionMapper**

```
    public NotFoundExceptionMapper()
```

20.2.3 Methods

- **toResponse**

```
    public Response toResponse(NotFoundException exception)
```

20.3 Class RecordListenerBean

The bean manages REST API for adding records to an observation as well as starting and stopping an observation.

20.3.1 Declaration

```
public class RecordListenerBean
    extends java.lang.Object implements java.io.Serializable
```

20.3.2 Constructors

- **RecordListenerBean**

```
    public RecordListenerBean()
```

20.3.3 Methods

- **addObservationData**

```
    public java.lang.String addObservationData(java.lang.String data
    )
```

- **Description**

Adds the observation data coming from the observation view. It could be used to take data from other clients, but not yet implemented or even planned.

- **Parameters**

- * **data** – The JSON data containing the records of the observation.

- **Returns** – "success" if the action succeeded and "failed" if it failed.

- **keepAlive**

```
public java.lang.String keepAlive()
```

- **Description**

Keeps the session alive during the observation.

- **startObservation**

```
public java.lang.String startObservation(java.lang.String data)
```

- **Description**

Marks the observation as started.

Chapter 21

Package com.moveatis.roles

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Classes	
AbstractRole	131
The entity is the base for the roles in Moveatis.	
RoleBean	133
The EJB manages the roles, which can be added to the users to allow the access system to be more finegrained.	
SuperUserRoleEntity	135
The entity represents the superuser role, which can be added to the users, who should have the superuser rights to Moveatis.	

21.1 Class AbstractRole

The entity is the base for the roles in Moveatis. The roles can be used to make the access rights system more finegrained. The entity can be extended to add more roles.

21.1.1 Declaration

```
public abstract class AbstractRole
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

21.1.2 All known subclasses

SuperUserRoleEntity (in [21.3](#), page [135](#))

21.1.3 Fields

- protected java.util.Date startDate
- protected java.util.Date endDate

21.1.4 Constructors

- **AbstractRole**

```
public AbstractRole()
```

21.1.5 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getEndDate**

```
public java.util.Date getEndDate()
```

- **getStartDate**

```
public java.util.Date getStartDate()
```

- **getUserEntity**

```
public abstract com.moveatis.user.IdentifiedUserEntity  
    getUserEntity()
```

- **hashCode**

```
public native int hashCode()
```

- **setEndDate**

```
public void setEndDate(java.util.Date endDate)
```

- **setStartDate**

```
public void setStartDate(java.util.Date startDate)
```

- **setUserEntity**

```
public abstract void setUserEntity(com.moveatis.user.  
    IdentifiedUserEntity user)
```

- **toString**

```
public java.lang.String toString()
```

21.1.6 Members inherited from class BaseEntity

`com.moveatis.abstracts.BaseEntity` (in [26.2](#), page [158](#))

- `public Date getCreated()`
- `protected Long getId()`
- `protected Date getRemoved()`
- `protected id`
- `public void setCreated()`
- `protected void setId(java.lang.Long id)`
- `protected void setRemoved()`

21.2 Class RoleBean

The EJB manages the roles, which can be added to the users to allow the access system to be more finegrained.

21.2.1 Declaration

```
public class RoleBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.Role
```

21.2.2 Constructors

- **RoleBean**

```
public RoleBean()
```

21.2.3 Methods

- **addSuperuserRoleToUser**

```
public void addSuperuserRoleToUser(com.moveatis.user.
    IdentifiedUserEntity user)
```

– **Description**

Adds the superuser rights to the user.

– **Parameters**

* **user** – The user to whom the superuser rights are granted.

- **addSuperuserRoleToUser**

```
public void addSuperuserRoleToUser(com.moveatis.user.
    IdentifiedUserEntity user,java.util.Date startDate,java.util.
    Date endDate)
```


- **Description**
Adds the superuser rights to the user with the start and end date.
- **Parameters**
 - * **user** – The user to whom the superuser rights are granted.
 - * **startDate** – The date when the role is activated.
 - * **endDate** – The date when the role is deactivated.

- **checkIfUserIsSuperUser**

```
public boolean checkIfUserIsSuperUser (com.moveatis.user.
    IdentifiedUserEntity user)
```

- **Description**
Checks if the user has the superuser rights.
- **Parameters**
 - * **user** – The user to be checked for the superuser rights.
- **Returns** – true if the user had the superuser rights, false otherwise.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager ()
```

- **listRoleUsers**

```
public java.util.List listRoleUsers (AbstractRole role)
```

- **Description**
Finds and returns the users with the given role. Not implemented in version 1.0.
- **Parameters**
 - * **role** – The role to be searched for.
- **Returns** – A list of the users with the role.

- **listSuperusers**

```
public java.util.List listSuperusers ()
```

- **Description**
Finds and returns a list of the users with the superuser rights.
- **Returns** – A list of the users with the superuser rights.

- **removeSuperuserRoleFromUser**

```
public void removeSuperuserRoleFromUser (com.moveatis.user .
    IdentifiedUserEntity user)
```

– **Description**

Removes the superuser rights from the user.

– **Parameters**

* **user** – The user whose superuser rights should be removed.

21.2.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in 26.1, page 156)

- **public int count()**
- **public void create(BaseEntity entity)**
- **public void edit(BaseEntity entity)**
- **public BaseEntity find(java.lang.Object id)**
- **public List findAll()**
- **public List findRange(int[] range)**
- **protected abstract EntityManager getEntityManager()**
- **public void remove(BaseEntity entity)**

21.3 Class SuperUserRoleEntity

The entity represents the superuser role, which can be added to the users, who should have the superuser rights to Moveatis. In version 1.0 doesn't include superuser tasks.

21.3.1 Declaration

```
public class SuperUserRoleEntity
extends com.moveatis.roles.AbstractRole implements java.io.
    Serializable
```

21.3.2 Constructors

- **SuperUserRoleEntity**

```
public SuperUserRoleEntity()
```

21.3.3 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getUserEntity**

```
public abstract com.moveatis.user.IdentifiedUserEntity
    getUserEntity()
```

- hashCode

```
public native int hashCode()
```

- setUserEntity

```
public abstract void setUserEntity(com.moveatis.user.
    IdentifiedUserEntity user)
```

- toString

```
public java.lang.String toString()
```

21.3.4 Members inherited from class AbstractRole

com.moveatis.roles.AbstractRole (in 21.1, page 131)

- protected endDate
- public boolean equals(java.lang.Object object)
- public Date getEndDate()
- public Date getStartDate()
- public abstract IdentifiedUserEntity getUserEntity()
- public int hashCode()
- public void setEndDate(java.util.Date endDate)
- public void setStartDate(java.util.Date startDate)
- public abstract void setUserEntity(com.moveatis.user.IdentifiedUserEntity user)
- protected startDate
- public String toString()

21.3.5 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in 26.2, page 158)

- public Date getCreated()
- protected Long getId()
- protected Date getRemoved()
- protected id
- public void setCreated()
- protected void setId(java.lang.Long id)
- protected void setRemoved()

Chapter 22

Package `com.moveatis.session`

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Classes	
LogoutBean	137
The bean manages logging out of Moveatis, which includes invalidating the session and redirecting the user to the Shibboleth logout URI.	
SessionBean	138
The bean manages actions the user needs in the usage of Moveatis.	

22.1 Class LogoutBean

The bean manages logging out of Moveatis, which includes invalidating the session and redirecting the user to the Shibboleth logout URI.

22.1.1 Declaration

```
public class LogoutBean
    extends java.lang.Object
```

22.1.2 Constructors

- LogoutBean

```
public LogoutBean()
```

22.1.3 Methods

- logOut

```
public void logOut(ActionEvent event) throws java.io.IOException
```

- **Description**

Logs the user out by invalidating the session and redirecting the user to the Shibboleth logout URL.

22.2 Class SessionBean

The bean manages actions the user needs in the usage of Moveatis.

22.2.1 Declaration

```
public class SessionBean
    extends java.lang.Object implements java.io.Serializable , com.
        moveatis.interfaces.Session
```

22.2.2 Constructors

- **SessionBean**

```
public SessionBean ()
```

22.2.3 Methods

- **getCategorySetsInUse**

```
java.util.List getCategorySetsInUse ()
```

- **getGroupKey**

```
com.moveatis.groupkey.GroupKeyEntity getGroupKey ()
```

- **getIsLocalhost**

```
public boolean getIsLocalhost ()
```

- **Description**

Used in development of Moveatis to detect whether the application is running on the actual production server or on localhost.

- **Returns** – true if Moveatis is running in localhost, false otherwise.

- **getLoggedIdentifiedUser**

```
com.moveatis.user.IdentifiedUserEntity getLoggedIdentifiedUser ()
```

- **getLoggedInUser**

```
com.moveatis.user.AbstractUser getLoggedInUser()
```

- **getReturnUri**

```
public java.lang.String getReturnUri()
```

- **Description**

Returns the URI in which the user was before he or she clicked the login button when not in the front page. Not implemented in version 1.0.

- **Returns** – the URI to return the user to.

- **getSessionObservationsIds**

```
java.util.SortedSet getSessionObservationsIds()
```

- **getSessionTimeZone**

```
java.util.TimeZone getSessionTimeZone()
```

- **isBackToCatEdAvailable**

```
public boolean isBackToCatEdAvailable()
```

- **Description**

Returns true if the button that redirects the user to the category selection view should be available to the user.

- **isIdentifiedUser**

```
boolean isIdentifiedUser()
```

- **isLoggedIn**

```
boolean isLoggedIn()
```

- **isResetObsAvailable**

```
public boolean isResetObsAvailable()
```

- **Description**

Returns true if the button that resets the current observation should be available to the user.

- **isSaveable**

```
public boolean isSaveable()
```

- **Description**

Checks if the observation is in saveable state. It is used in checking if the Save button can be displayed.

- **Returns** – true if the observation could be saved.

- **isToFrontPageAvailable**

```
public boolean isToFrontPageAvailable()
```

- **Description**

Returns true if the button that redirects the user to the front page should be available to the user.

- **setAnonymityUser**

```
void setAnonymityUser()
```

- **setCategorySetsInUse**

```
void setCategorySetsInUse(java.util.List categorySets)
```

- **setIdentityProviderUser**

```
void setIdentityProviderUser(com.moveatis.user.  
    IdentifiedUserEntity user)
```

- **setReturnUri**

```
public void setReturnUri(java.lang.String returnUrl)
```

- **Description**

Sets the URI into which the user will be returned when he or she clicks the login button outside of the front page. Not implemented in version 1.0.

- **Parameters**

* `returnUri` – The URI that is set as return URI.

- **setSessionObservations**

```
void setSessionObservations(java.util.SortedSet observationsIds)
```

- **setSessionTimeZone**

```
void setSessionTimeZone(java.util.TimeZone timeZone)
```

- **setTagUser**

```
void setTagUser(com.moveatis.user.TagUserEntity tagUser)
```

- **toString**

```
public java.lang.String toString()
```


Chapter 23

Package com.moveatis.timezone

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Classes	
TimeZoneInformation	142
The class to keep the default time zone of Moveatis.	

23.1 Class TimeZoneInformation

The class to keep the default time zone of Moveatis.

23.1.1 Declaration

```
public class TimeZoneInformation
    extends java.lang.Object
```

23.1.2 Constructors

- **TimeZoneInformation**

```
public TimeZoneInformation()
```

23.1.3 Methods

- **getTimeZone**

```
public static java.util.TimeZone getTimeZone()
```

- **getTimeZoneFromOffset**

```
public static java.util.TimeZone getTimeZoneFromOffset(int
    offset ,int DSTSaving)
```

– **Description**

Gets a `TimeZone` from the time zone offset and the daylight saving time.

– **Parameters**

- * `offset` – the time zone offset in milliseconds.
- * `DSTSaving` – the daylight saving time in milliseconds.

Chapter 24

Package com.moveatis.user

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Classes	
AbstractUser	144
The base user entity for TagUser and IdentifiendUser.	
AnonUserBean	146
The EJB manages the anonymity user, which represents the public user of Moveatis.	
AnonUserEntity	146
The entity represents one public user account in Moveatis.	
IdentifiedUserEntity	148
The entity represents the individual user, which is identified using the Shibboleth identity system of Jyväskylä University.	
TagUserBean	150
The EJB is used in managing of TagUser, which represents the user account for accessing with a group key into Moveatis.	
TagUserEntity	151
The entity represent the data for accessing with a group key into Moveatis.	
UserBean	152
The EJB manages an identified user.	

24.1 Class AbstractUser

The base user entity for TagUser and IdentifiendUser. TagUser is the user which provides access for group keys and the identified user is an individual user, who is identified using the Shibboleth identity system of Jyväskylä University.

24.1.1 Declaration

```
public abstract class AbstractUser
    extends com.moveatis.abstracts.BaseEntity implements java.io.
        Serializable
```

24.1.2 All known subclasses

TagUserEntity (in 24.6, page 151), IdentifiedUserEntity (in 24.4, page 148), AnonUserEntity (in 24.3, page 146)

24.1.3 Constructors

- **AbstractUser**

```
public AbstractUser()
```

24.1.4 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getId**

```
protected java.lang.Long getId()
```

- **hashCode**

```
public native int hashCode()
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **toString**

```
public java.lang.String toString()
```

24.1.5 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in 26.2, page 158)

- public Date **getCreated()**
- protected Long **getId()**
- protected Date **getRemoved()**
- protected **id**
- public void **setCreated()**
- protected void **setId(java.lang.Long id)**
- protected void **setRemoved()**

24.2 Class AnonUserBean

The EJB manages the anonymity user, which represents the public user of Moveatis. The class is not used in version 1.0

24.2.1 Declaration

```
public class AnonUserBean
  extends com.moveatis.abstracts.AbstractBean implements com.moveatis
    .interfaces.AnonUser
```

24.2.2 Constructors

- **AnonUserBean**

```
public AnonUserBean()
```

24.2.3 Methods

- **find**

```
AnonUserEntity find()
```

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

24.2.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in [26.1](#), page [156](#))

- **public int count()**
- **public void create(BaseEntity entity)**
- **public void edit(BaseEntity entity)**
- **public BaseEntity find(java.lang.Object id)**
- **public List findAll()**
- **public List findRange(int[] range)**
- **protected abstract EntityManager getEntityManager()**
- **public void remove(BaseEntity entity)**

24.3 Class AnonUserEntity

The entity represents one public user account in Moveatis. It's used as bookkeeping purposes, as each session must have a user.

24.3.1 Declaration

```
public class AnonUserEntity
    extends com.moveatis.user.AbstractUser implements java.io.
        Serializable
```

24.3.2 Constructors

- **AnonUserEntity**

```
public AnonUserEntity()
```

24.3.3 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getCreator**

```
public IdentifiedUserEntity getCreator()
```

- **getLabel**

```
public java.lang.String getLabel()
```

- **hashCode**

```
public native int hashCode()
```

- **setCreator**

```
public void setCreator(IdentifiedUserEntity creator)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

- **toString**

```
public java.lang.String toString()
```

24.3.4 Members inherited from class `AbstractUser`

`com.moveatis.user.AbstractUser` (in 24.1, page 144)

- `public boolean equals(java.lang.Object object)`
- `public Long getId()`
- `public int hashCode()`
- `public void setId(java.lang.Long id)`
- `public String toString()`

24.3.5 Members inherited from class `BaseEntity`

`com.moveatis.abstracts.BaseEntity` (in 26.2, page 158)

- `public Date getCreated()`
- `protected Long getId()`
- `protected Date getRemoved()`
- `protected id`
- `public void setCreated()`
- `protected void setId(java.lang.Long id)`
- `protected void setRemoved()`

24.4 Class `IdentifiedUserEntity`

The entity represents the individual user, which is identified using the Shibboleth identity system of Jyväskylä University.

24.4.1 Declaration

```
public class IdentifiedUserEntity
    extends com.moveatis.user.AbstractUser implements java.io.
        Serializable
```

24.4.2 Constructors

- `IdentifiedUserEntity`

```
public IdentifiedUserEntity ()
```

24.4.3 Methods

- `equals`

```
public boolean equals(java.lang.Object arg0)
```

- `getEmail`

```
public java.lang.String getEmail ()
```

- **getGivenName**

```
public java.lang.String getGivenName()
```

- **getIdentityProviderInformation**

```
public com.moveatis.identityprovider.  
IdentityProviderInformationEntity  
getIdentityProviderInformation()
```

- **getIdentityProviderInformationEntity**

```
public com.moveatis.identityprovider.  
IdentityProviderInformationEntity  
getIdentityProviderInformationEntity()
```

- **hashCode**

```
public native int hashCode()
```

- **setEmail**

```
public void setEmail(java.lang.String email)
```

- **setGivenName**

```
public void setGivenName(java.lang.String givenName)
```

- **setIdentityProviderInformation**

```
public void setIdentityProviderInformation(com.moveatis.  
identityprovider.IdentityProviderInformationEntity  
identityProviderInformation)
```

- **setIdentityProviderInformationEntity**

```
public void setIdentityProviderInformationEntity(com.moveatis.  
identityprovider.IdentityProviderInformationEntity  
identityProviderInformation)
```

- **toString**

```
public java.lang.String toString()
```


24.4.4 Members inherited from class AbstractUser

`com.moveatis.user.AbstractUser` (in 24.1, page 144)

- `public boolean equals(java.lang.Object object)`
- `public Long getId()`
- `public int hashCode()`
- `public void setId(java.lang.Long id)`
- `public String toString()`

24.4.5 Members inherited from class BaseEntity

`com.moveatis.abstracts.BaseEntity` (in 26.2, page 158)

- `public Date getCreated()`
- `protected Long getId()`
- `protected Date getRemoved()`
- `protected id`
- `public void setCreated()`
- `protected void setId(java.lang.Long id)`
- `protected void setRemoved()`

24.5 Class TagUserBean

The EJB is used in managing of TagUser, which represents the user account for accessing with a group key into Moveatis.

24.5.1 Declaration

```
public class TagUserBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.TagUser
```

24.5.2 Constructors

- **TagUserBean**

```
public TagUserBean()
```

24.5.3 Methods

- **findByKey**

```
TagUserEntity findByKey(com.moveatis.groupkey.GroupKeyEntity
    groupkey)
```

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

24.5.4 Members inherited from class AbstractBean

`com.moveatis.abstracts.AbstractBean` (in [26.1](#), page [156](#))

- `public int count()`
- `public void create(BaseEntity entity)`
- `public void edit(BaseEntity entity)`
- `public BaseEntity find(java.lang.Object id)`
- `public List findAll()`
- `public List findRange(int[] range)`
- `protected abstract EntityManager getEntityManager()`
- `public void remove(BaseEntity entity)`

24.6 Class TagUserEntity

The entity represent the data for accessing with a group key into Moveatis.

24.6.1 Declaration

```
public class TagUserEntity
    extends com.moveatis.user.AbstractUser implements java.io.
        Serializable
```

24.6.2 Constructors

- **TagUserEntity**

```
public TagUserEntity()
```

24.6.3 Methods

- **equals**

```
public boolean equals(java.lang.Object arg0)
```

- **getCreator**

```
public IdentifiedUserEntity getCreator()
```

- **getGroupKey**

```
public com.moveatis.groupkey.GroupKeyEntity getGroupKey()
```

- **getLabel**

```
public java.lang.String getLabel()
```

- **hashCode**

```
public native int hashCode()
```

- **setCreator**

```
public void setCreator(IdentifiedUserEntity creator)
```

- **setGroupKey**

```
public void setGroupKey(com.moveatis.groupkey.GroupKeyEntity
    groupKey)
```

- **setLabel**

```
public void setLabel(java.lang.String label)
```

- **toString**

```
public java.lang.String toString()
```

24.6.4 Members inherited from class AbstractUser

com.moveatis.user.AbstractUser (in 24.1, page 144)

- public boolean equals(java.lang.Object object)
- public Long getId()
- public int hashCode()
- public void setId(java.lang.Long id)
- public String toString()

24.6.5 Members inherited from class BaseEntity

com.moveatis.abstracts.BaseEntity (in 26.2, page 158)

- public Date getCreated()
- protected Long getId()
- protected Date getRemoved()
- protected id
- public void setCreated()
- protected void setId(java.lang.Long id)
- protected void setRemoved()

24.7 Class UserBean

The EJB manages an identified user. It is not used much in version 1.0

24.7.1 Declaration

```
public class UserBean
    extends com.moveatis.abstracts.AbstractBean implements com.moveatis
        .interfaces.User
```

24.7.2 Constructors

- UserBean

```
public UserBean()
```

24.7.3 Methods

- getEntityManager

```
protected abstract EntityManager getEntityManager()
```

24.7.4 Members inherited from class AbstractBean

com.moveatis.abstracts.AbstractBean (in [26.1](#), page [156](#))

- public int count()
- public void create(BaseEntity entity)
- public void edit(BaseEntity entity)
- public BaseEntity find(java.lang.Object id)
- public List findAll()
- public List findRange(int[] range)
- protected abstract EntityManager getEntityManager()
- public void remove(BaseEntity entity)

Chapter 25

Package `com.moveatis.servlet`

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The servlet handles the identification of a user using the Shibboleth service of Jyväskylä University.	

25.1 Class `JyuIdentityServlet`

The servlet handles the identification of a user using the Shibboleth service of Jyväskylä University. If you are modifying Moveatis to your own organization, you need to implement your own identity provider service with the classes in the identity provider package.

25.1.1 See also

- `com.moveatis.identityprovider.IdentityProviderInformationEntity` (in [12.3](#), page [54](#))
- `IdentityProvider`
- `com.moveatis.identityprovider.IdentityProviderBean` (in [12.2](#), page [53](#))
- `IdentityProviderRegistrationBean`

25.1.2 Declaration

```
public class JyuIdentityServlet
    extends HttpServlet
```

25.1.3 Constructors

- `JyuIdentityServlet`

```
public JyuIdentityServlet ()
```

25.1.4 Methods

- **doGet**

```
protected void doGet(HttpServletRequest request ,  
    HttpServletResponse response) throws ServletException , java.  
    io.IOException
```

- **doPost**

```
protected void doPost(HttpServletRequest request ,  
    HttpServletResponse response) throws ServletException , java.  
    io.IOException
```

- **Description**

- Handles the HTTP POST method.

- **Throws**

- * ServletException – if a servlet-specific error occurs.
 - * java.io.IOException – if an I/O error occurs.

- **getServletInfo**

```
public java.lang.String getServletInfo ()
```

- **Description**

- Returns a short description of the servlet.

- **Returns** – a String containing servlet description.

- **processRequest**

```
protected void processRequest(HttpServletRequest request ,  
    HttpServletResponse response) throws ServletException , java.  
    io.IOException
```

- **Description**

- Processes requests for both HTTP GET and POST methods.

- **Throws**

- * ServletException – if a servlet-specific error occurs.
 - * java.io.IOException – if an I/O error occurs.

Chapter 26

Package `com.moveatis.abstracts`

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26.1 Class `AbstractBean`

The super class to the enterprise beans manages the persistent connection and entities.

26.1.1 Declaration

```
public abstract class AbstractBean
    extends java.lang.Object
```

26.1.2 All known subclasses

`ApplicationBean` (in 1.1, page 5), `CategorySetBean` (in 2.3, page 14), `CategoryBean` (in 2.1, page 10), `EventGroupBean` (in 6.3, page 30), `EventBean` (in 6.1, page 26), `GroupKeyBean` (in 10.1, page 46), `IdentityProviderBean` (in 12.2, page 53), `LabelBean` (in 14.1, page 77), `ObservationBean` (in 17.1, page 112), `RecordBean` (in 19.1, page 124), `RoleBean` (in 21.2, page 133), `UserBean` (in 24.7, page 152), `TagUserBean` (in 24.5, page 150), `AnonUserBean` (in 24.2, page 146)

26.1.3 Constructors

- `AbstractBean`

```
public AbstractBean(java.lang.Class entityClass)
```

26.1.4 Methods

- **count**

```
public int count()
```

- **Description**

Counts how many entities there are of the requested type.

- **Returns** – The count of the entities.

- **create**

```
public void create(BaseEntity entity)
```

- **Description**

Creates a new entity.

- **Parameters**

* **entity** – The entity to be created.

- **edit**

```
public void edit(BaseEntity entity)
```

- **Description**

Edits the entity.

- **Parameters**

* **entity** – The entity to be edited.

- **find**

```
public BaseEntity find(java.lang.Object id)
```

- **Description**

Finds an entity and returns it if it's not out of date.

- **Parameters**

* **id** – The id of the entity to be found.

- **Returns** – The entity, if it is found. Otherwise null.

- **findAll**

```
public java.util.List findAll()
```


- **Description**
Finds all the entities, whose type matches the requested entity.
- **Returns** – A list of all the entities of the requested entity type.

- **findRange**

```
public java.util.List findRange(int [] range)
```

- **Description**
Finds and returns the list of entities in the specified range. The range array has two elements: the minimum and the maximum of the range.
- **Parameters**
* **range** – An array with two elements.
- **Returns** – A list of the entities in the range.

- **getEntityManager**

```
protected abstract EntityManager getEntityManager()
```

- **remove**

```
public void remove(BaseEntity entity)
```

- **Description**
Removes the entity.
- **Parameters**
* **entity** – The entity to be removed.

26.2 Class BaseEntity

The entity is the base of all the entities of the application. It has the id and the dates for creation and removal. Like the MappedSuperclass, it's not persisted to the database itself.

26.2.1 Declaration

```
public abstract class BaseEntity
    extends java.lang.Object
```

26.2.2 All known subclasses

ApplicationEntity (in 1.2, page 6), CategorySetEntity (in 2.4, page 15), CategoryEntity (in 2.2, page 11), EventGroupEntity (in 6.4, page 31), EventEntity (in 6.2, page 28), GroupKeyEntity (in 10.2, page 47), IdentityProviderInformationEntity (in 12.3, page 54), LabelEntity (in 14.2, page 78), ObservationEntity (in 17.5, page 119), RecordEntity (in 19.2, page 125), SuperUserRoleEntity (in 21.3, page 135), AbstractRole (in 21.1, page 131), TagUserEntity (in 24.6, page 151), IdentifiedUserEntity (in 24.4, page 148), AnonUserEntity (in 24.3, page 146), AbstractUser (in 24.1, page 144)

26.2.3 Fields

- `protected java.lang.Long id`

26.2.4 Constructors

- **BaseEntity**

```
public BaseEntity()
```

26.2.5 Methods

- **getCreated**

```
public java.util.Date getCreated()
```

- **getId**

```
protected java.lang.Long getId()
```

- **getRemoved**

```
protected java.util.Date getRemoved()
```

- **setCreated**

```
public void setCreated()
```

- **setId**

```
protected void setId(java.lang.Long id)
```

- **setRemoved**

```
protected void setRemoved()
```

Chapter 27

Package `com.moveatis.validation`

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The validator for user submitted email addresses.	

27.1 Class `EmailValidatorBean`

The validator for user submitted email addresses.

27.1.1 Declaration

```
public class EmailValidatorBean
    extends java.lang.Object
```

27.1.2 Constructors

- `EmailValidatorBean`

```
public EmailValidatorBean()
```

27.1.3 Methods

- `getMetadata`

```
public java.util.Map getMetadata()
```

- `getValidatorId`

```
public java.lang.String getValidatorId()
```

- **validate**

```
public void validate(FacesContext context ,UIComponent component ,  
    java.lang.Object value) throws ValidatorException
```

- **Description**

Validates the email address.

- **Parameters**

- * **context** – The FacesContext for the session.
- * **component** – The component to be validated.
- * **value** – The value for the component.

- **Throws**

- * **ValidatorException** – if the email address was not valid.