

```
package fi.paatti.paattidatabaseutils.dbobjects;

import java.util.ArrayList;

/**
 * User object holds the username, ID, groups and roles of the user. It also has
 * some methods to check if the user belongs to a certain group or has some role
 * in those groups.
 *
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 */
public class User {

    private final ArrayList<UserGroup> userGroups = new ArrayList<UserGroup>();
    private final int userID;
    private String username;

    /**
     * User constructor.
     *
     * @param userID The ID of the user.
     */
    public User(int userID) {
        this.userID = userID;
    }

    /**
     * Returns the value of username.
     *
     * @return the value of username.
     */
    public String getUsername() {
        return username;
    }

    /**
     * Sets the value of username.
     *
     * @param username new value of username.
     */
    public void setUsername(String username) {
        this.username = username;
    }
}
```

```
/**
 * Returns the value of userID.
 *
 * @return the value of userID.
 */
public int getUserID() {
    return userID;
}

/**
 * Returns the user's groups.
 *
 * @return The user's groups.
 */
public ArrayList<UserGroup> getUserGroups() {
    return userGroups;
}

/**
 * Adds a new user group to the user.
 *
 * @param ugGroup user group
 */
public void addUserGroup(UserGroup ugGroup) {
    this.userGroups.add(ugGroup);
}

/**
 * Checks if the user belongs to a certain user group.
 *
 * @param userID the user group's id.
 * @return True if the user belongs to the given group, otherwise false.
 */
public boolean isInUserGroup(int userID) {
    boolean isInGroup = false;

    for (UserGroup userGroup : userGroups) {
        if (userGroup.getUsergroupID() == userID) {
            isInGroup = true;
        }
    }
    return isInGroup;
}

/**
 * Checks if the user has the given role in the given group.
```

```
* @param roleID The ID of the user role.
* @param usergroupID The ID of the user group.
* @return True if the user has the given role in the given group, otherwise
* false.
*/
public boolean hasRoleInUserGroup(int roleID, int usergroupID) {
    boolean hasRole = false;
    for (UserGroup userGroup : userGroups) {
        if (userGroup.getUsergroupID() == usergroupID) {
            hasRole = userGroup.getUsergroupRoleID() == roleID;
        }
    }
    return hasRole;
}

/**
 * Checks if the user has the given role in any of his/her groups.
 */
* @param roleID The ID of the user role.
* @return True if the user has the given role in any of his/her groups,
* otherwise false.
*/
public boolean hasRoleInAnyGroup(int roleID) {
    for (UserGroup userGroup : userGroups) {
        if (userGroup.getUsergroupRoleID() == roleID) {
            return true;
        }
    }
    return false;
}
}
```