

```
package fi.paatti.research.paattiapplication.views;

import com.vaadin.data.Item;
import com.vaadin.ui.Button.ClickEvent;
import com.vaadin.ui.Button.ClickListener;
import com.vaadin.ui.CustomComponent;

/**
 * The interface for the application views.
 */
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 */
public abstract class ApplicationViewTab extends CustomComponent implements ClickListener {

    protected ApplicationView view;

    /**
     * ApplicationViewTab constructor.
     *
     * @param v the ApplicationView that is the parent of this sub-view.
     */
    public ApplicationViewTab(ApplicationView v) {
        view = v;
    }

    /**
     * Creates layout for the tab.
     */
    protected abstract void createLayout();

    /**
     * Sets contents for the tab.
     *
     * @param item db item.
     */
    public final void setContents(Item item) {
        if (item != null) {
            fillTab(item);
        } else {
            clearTab();
        }
    }
}
```

```
/**
 * Fills the tab's fields with the item's information.
 *
 * @param item db item.
 */
protected abstract void fillTab(Item item);

/**
 * Clears all information from the tab.
 */
protected abstract void clearTab();

/**
 * Handles the tab's button click events.
 *
 * @param event click event.
 */
public abstract void buttonClick(ClickEvent event);
}
```