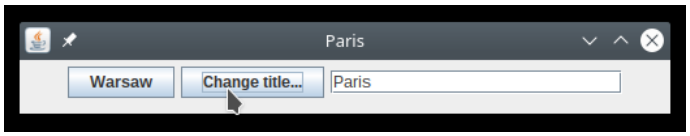
I. Create a window with a text box and button. We will enter numbers into the text box.

Create a class *MyActionListener* extended with *ActionListener* and add a *MyActionListener* listener to the button. Implement the listener so that when you press the button, an additional thread will start, which will count down the value entered in the text field to zero (and display successive numbers in the text field). To pass the necessary data to the listener use built-in methods - *addActionCommand* or *putClientProperty*. Decide which will be better to use in this case.

Use the information given at site:

https://docs.oracle.com/javase/tutorial/uiswing/events/index.html

II. Write an application displaying a GUI with two buttons and one text field.

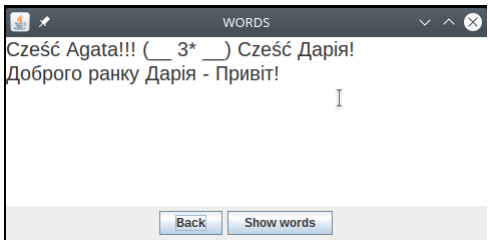


Expected functionality:

- Clicking the left button copies the text from this button to the text field
- Pressing ENTER in the text field copies its text onto the left button
- Clicking the right button changes the title of the window to the text from the text field.

The listener of the right button should be an object of a separate class, while listeners of the left button try implement using lambdas.

III. Write an application displaying a GUI with a text area and two buttons — "Back" and "Show words". The user enters an arbitrary text



and after clicking the "Show words" button a list of all words from the text is displayed in the text area; each word in lower case and once only

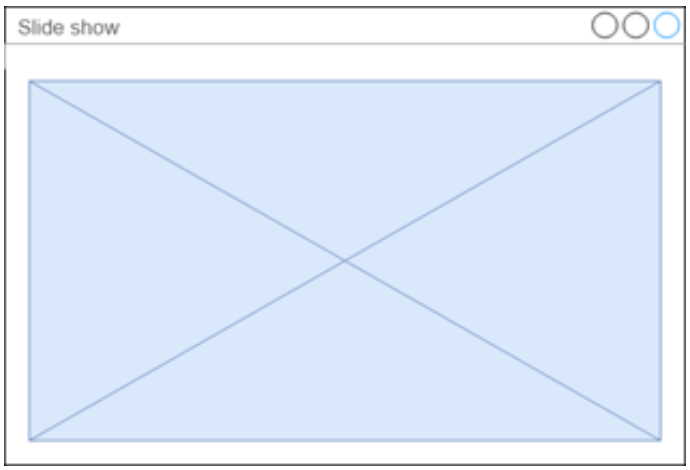
Clicking now the "Back" button restores the original text in the text area, for further editing.

IV. Write a program that allows you to view any images in the format ***jpg*** or ***png*** from the given directory. You can use the ***JFileChooser*** class to select a directory.

The images are sequentially shown in the same window, where:

- display time for one picture is 5 seconds,,
- after all images have been displayed, the images are displayed from the beginning.
- pictures are shown in their original proportions,
- window resizing scales the image,

Sample window layout:



You can use the ***ImageIcon*** class to create the application.

V. Add to the previously written program a display of thumbnails of images loaded from the catalog at the top of the window. The thumbnail of the currently displayed image should have a different component border. It's worth creating your own component displaying a thumbnail image.