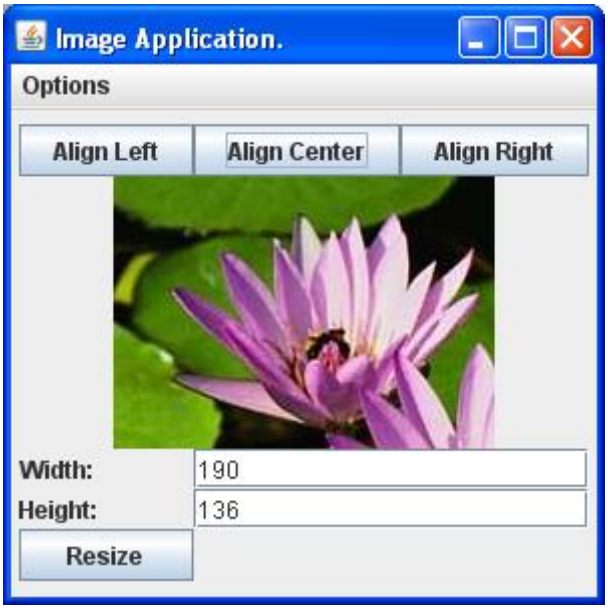
JAVA 2012-2013

Third Assignment [Should be handed back by 31 May]

EXERCISE 1

Implement a Java application that displays a default image stored on local disk:

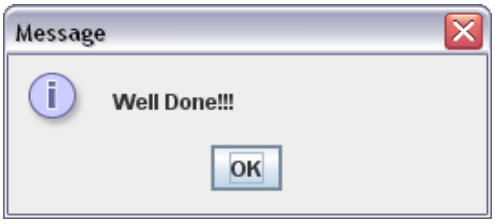


Three buttons, "Align Left", "Align Center" and "Align Right", will be used for aligning the image in the window. In the text fields with labels "Width" and "Height" the dimensions of the image will be displayed. The user can modify these values and by clicking the button "Resize", the image will be resized accordingly. There is also a menu on top "Options" with the option "Reset" that resets the image size to the original dimensions and a second option "Double" that doubles the width and height of the image.

EXERCISE 2

Develop a small java application (Java Applet) that implements the following puzzle:

The puzzle consists of 8 square pieces numbered from 1 to 8. The button "New Game" initializes the pieces at random positions and sets the counter "Moves" to 0. When the user clicks a piece that is adjoined to the blank square, it will be moved to the blank square position. The counter "Moves" will count how many moves have been made since the game started. When all pieces have been set to the correct order, a message will be displayed to the user:



Hint: The puzzle pieces can be considered as small panels that share common attributes like labels and coordinates. These pieces can be parts of a bigger panel, so after a move or change has been made, the bigger panel will be redrawn.

You need to send me (kobas@ceid.upatras.gr) a zipped file containing the *.java files and a short report (.doc or .pdf) describing your implementation, with comments and screenshots of running the program.