

Vector Based Drawing Application

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The GUI consists of 10 buttons :

Line:

By clicking this button you will be able to draw a line by clicking on the canvas to determine the first point then drag and release.

Triangle:

By clicking this button you will be able to draw a triangle by clicking three times on three different areas on the canvas to determine the three points needed to draw a triangle.

Circle:

By clicking this button you will be able to draw a circle by clicking on the canvas then dragging and releasing.

Ellipse:

By clicking this button you will be able to draw an Ellipse by clicking on the canvas then dragging and releasing.

Rectangle:

By clicking this button you will be able to draw a Rectangle by clicking on the canvas then dragging and releasing.

Square:

By clicking this button you will be able to draw a Square by clicking on the canvas then dragging and releasing.

Clear :

By clicking this button you will be able to delete everything that have been drawn on the canvas.
(you can get it back by clicking on undo).

Save :

By clicking this button you will be able to save your progress in an XML or JSON files only.

Load :

By clicking this button ,a file chooser appears that allows you to load an XML or JSON files of your saved work, or a jar file needed for loading a class (to draw a square).

Select:

By clicking this button you will be able to select any drawn shape and by clicking on it so you will be able to move, resize, fill, or delete that shape (Group selection is available)

Move:

By clicking this button you will be able to move an already selected shape by clicking on the area you want to move the shape to.

Resize:

By clicking this button you will be able to resize an already selected shape, by clicking on any area the nearest edge of the

selected shape will move to this area changing how the shape already looks like.

Fill:

By clicking this button you will be able to fill an already selected shape where you can choose your desirable color from the colors palette.

Delete:

By clicking this button you will be able to delete an already selected shape (you can restore it back by clicking undo).

Undo:

By clicking this button you will be able to restore your previous canvas state .

Redo:

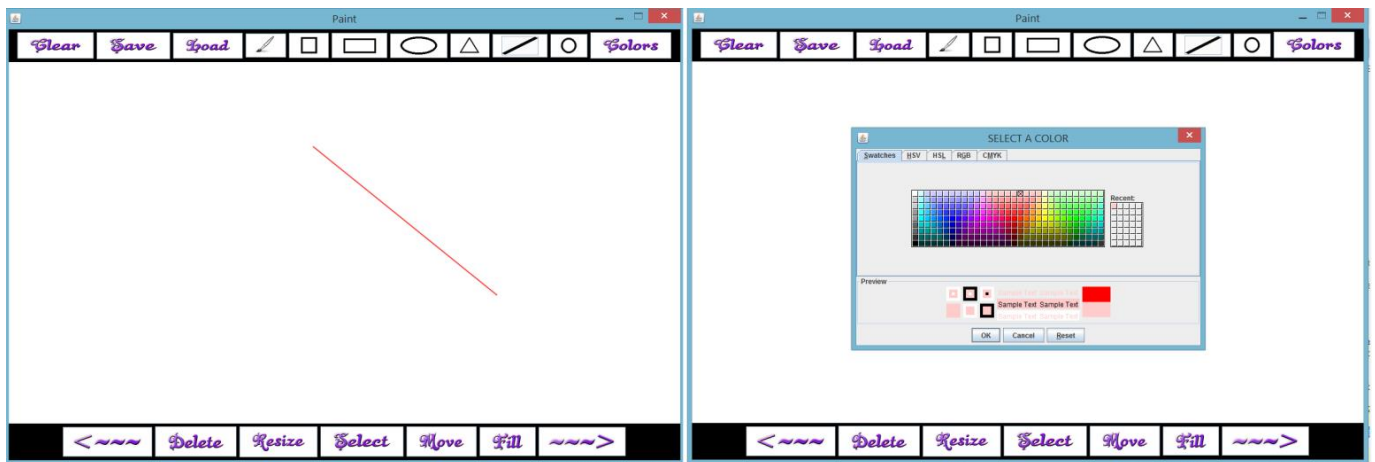
By clicking this button you will be able to get back anything you undone before you draw a new shape.

Colors:

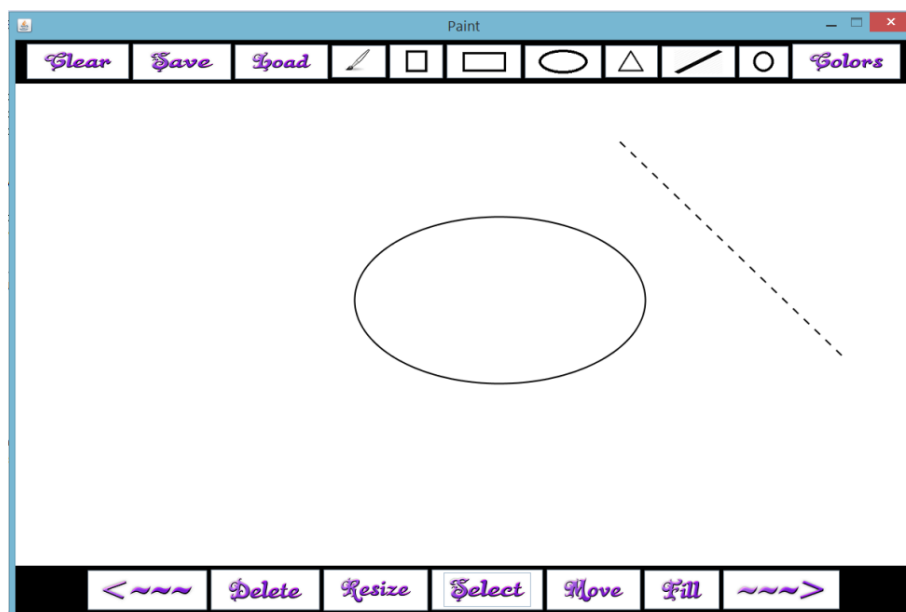
By clicking of this button you will be allowed to choose an outline color from the colors palette.

SnapShots :

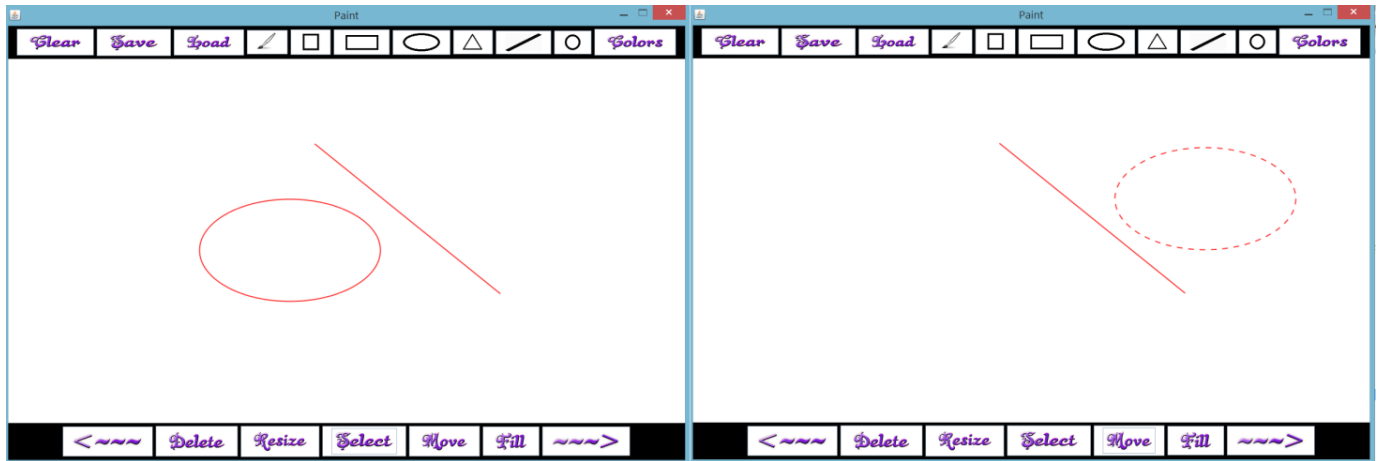
-Colors :



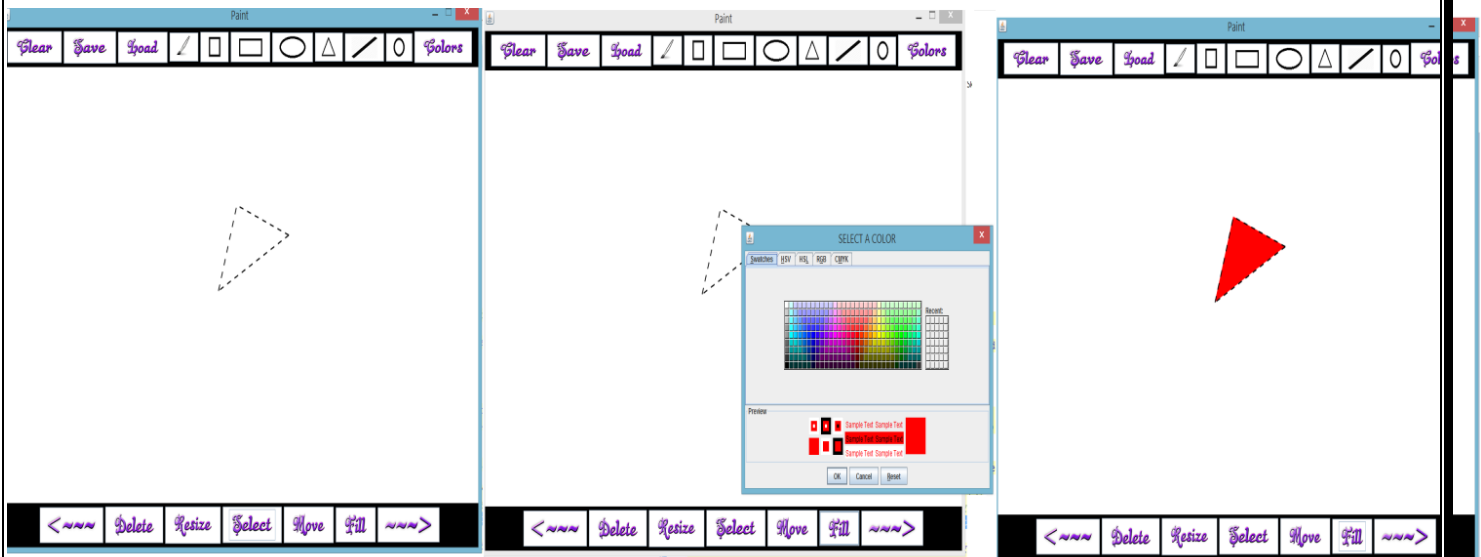
-Select :



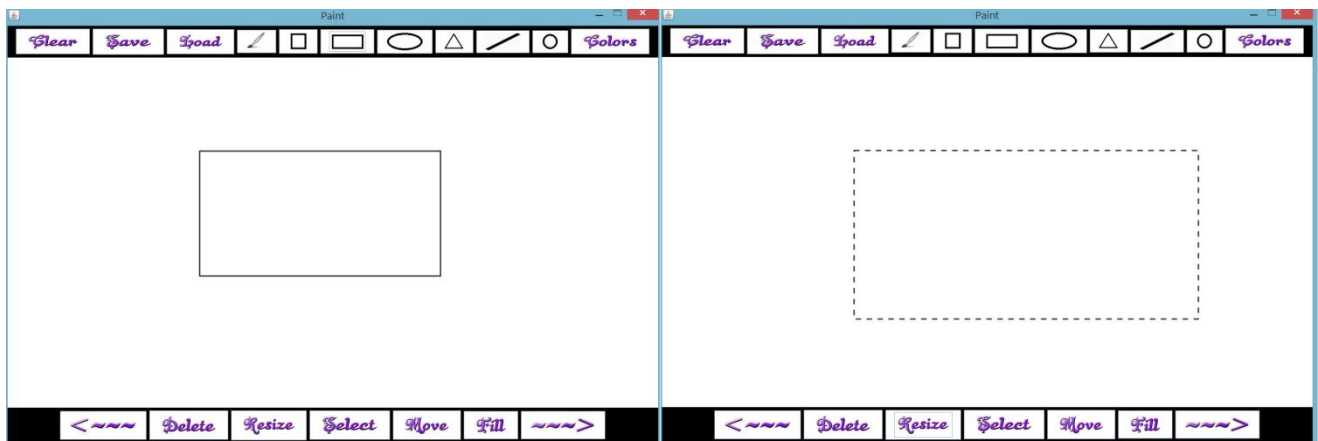
-Move:



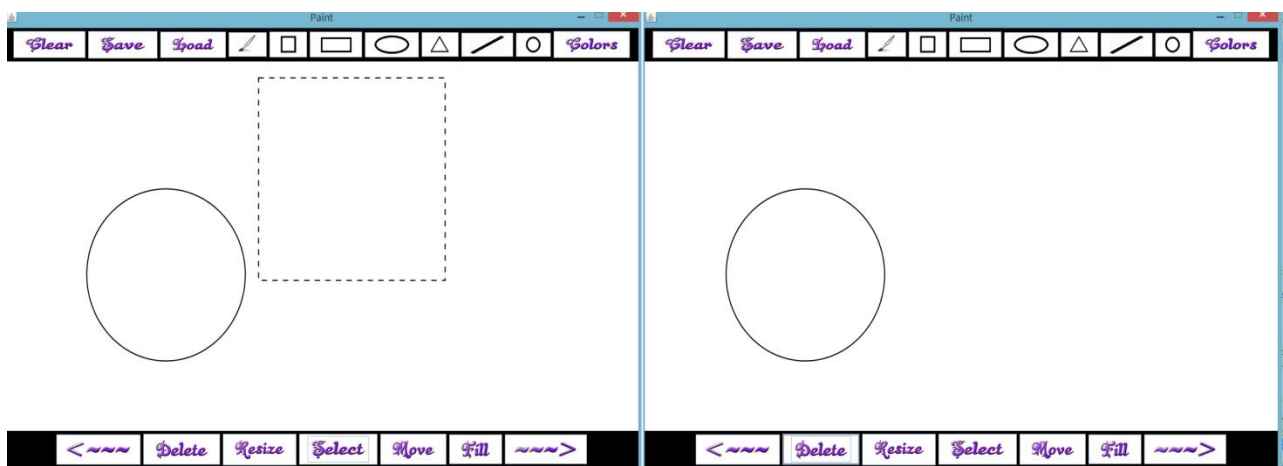
- Fill :



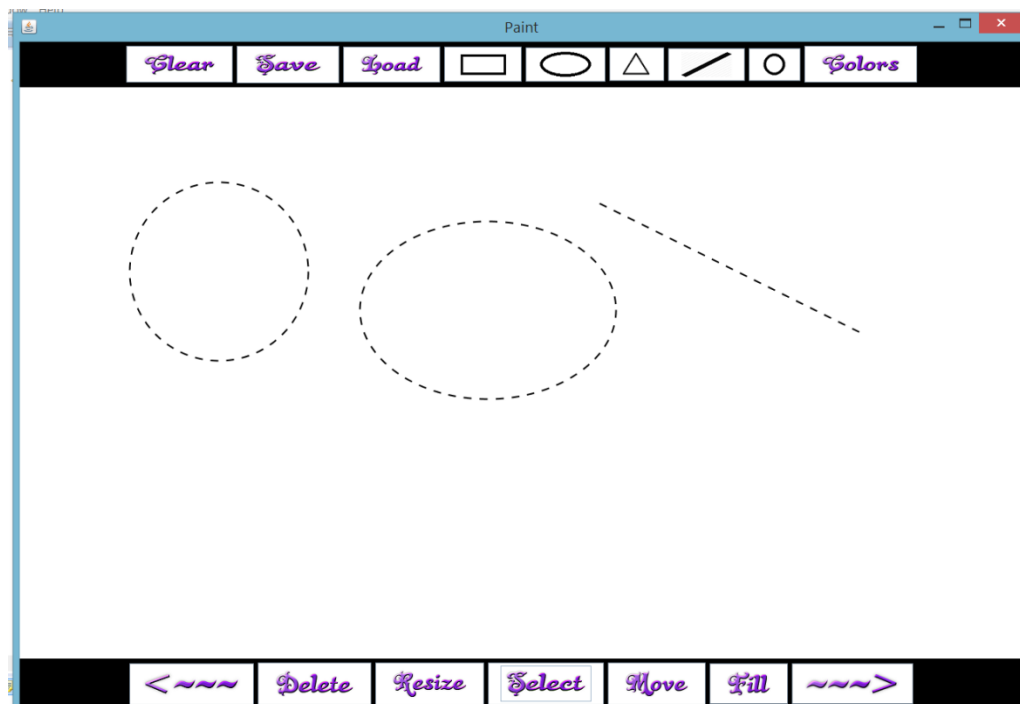
-Resize:



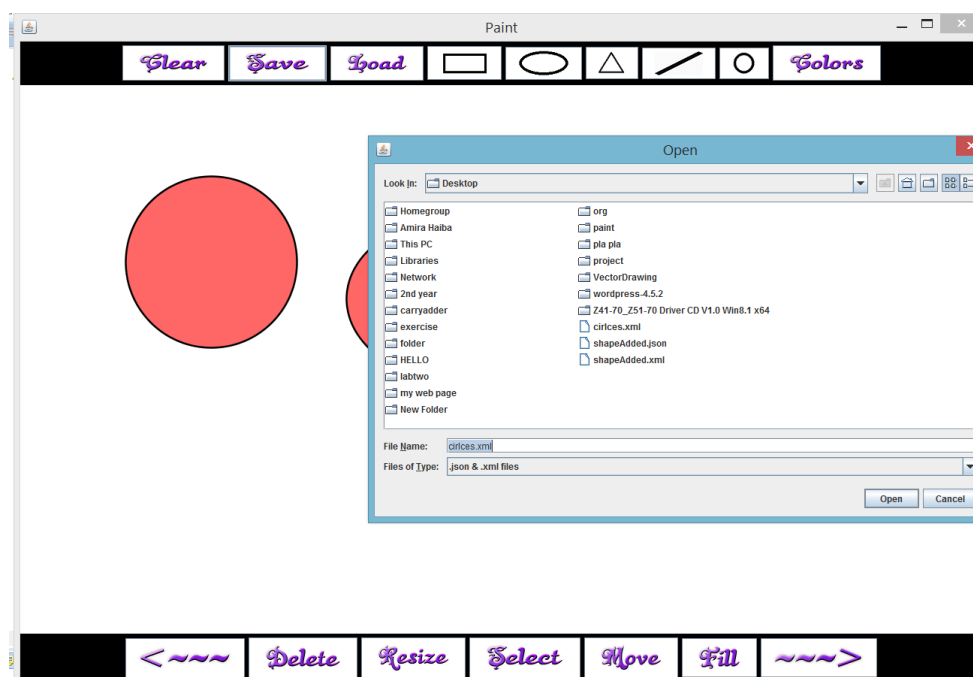
-Delete :



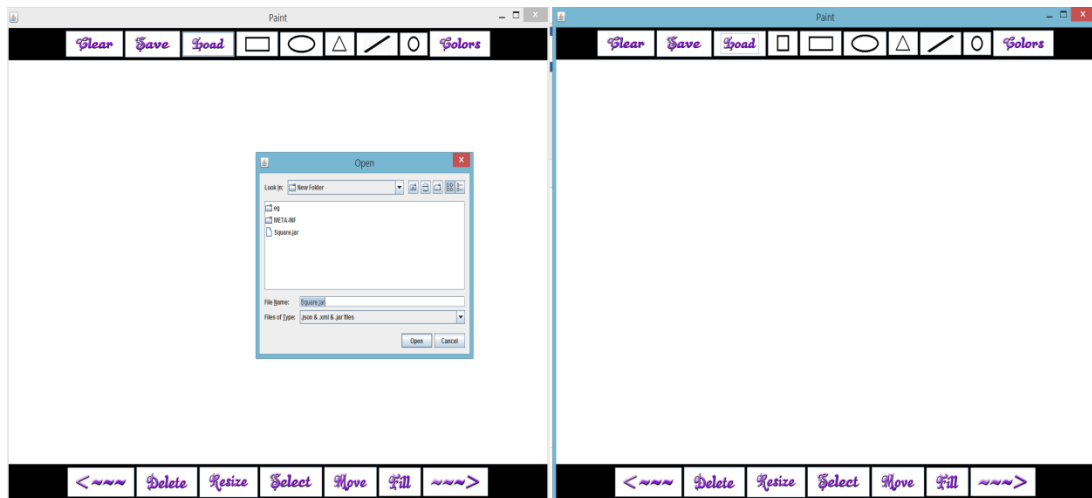
-Group selection:



-File chooser:



Loading a class



CS 221 Programming-2

[illegible]

-Design decisions :

- The whole program is based on an ArrayList of ArrayLists .
- The user should click on mouse for shape editing instead of dragging, which we consider more convenient, user friendly and much easier than mouse dragging.
- The user is allowed to group select any shapes and apply the same shape editing once on all of them which is much easier in editing.
- File chooser dialogue appears on loading to allow the user to select the desired location.