Alexandria University
Faculty of Engineering
Computer and Systems Engineering Dept.
Second Year



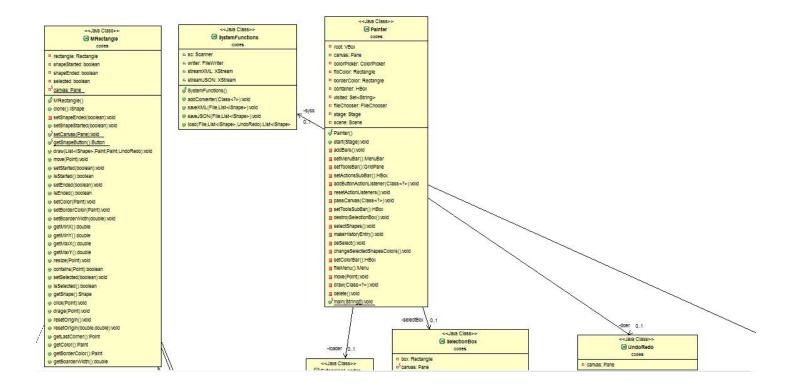
Object Oriented Programming: Project 2

• Names:

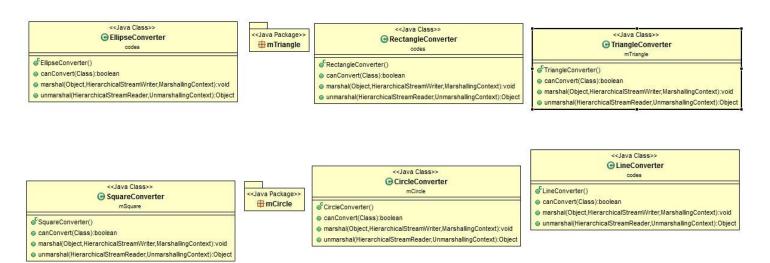
- Ahmed Magdy Gamal. (12)
- Mahmoud Mohammed Hussein. (70)

• UML Diagram

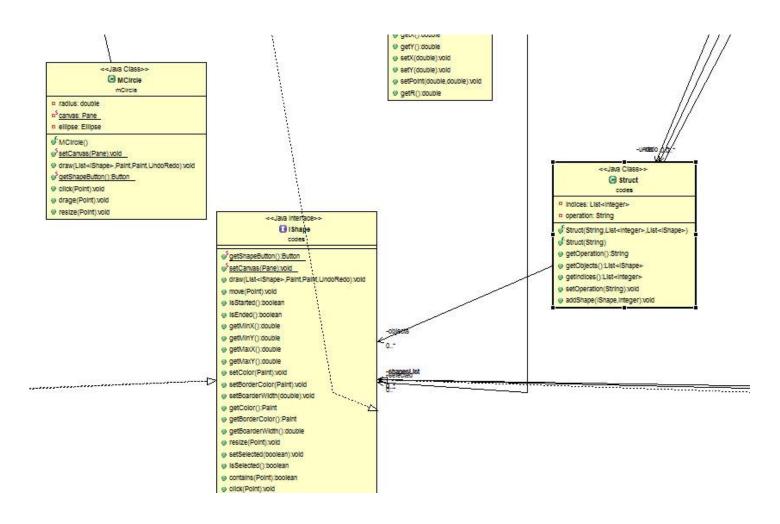
Part 1.



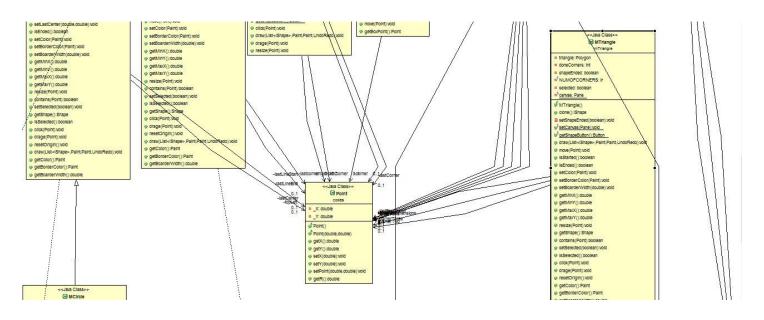
Part 2.



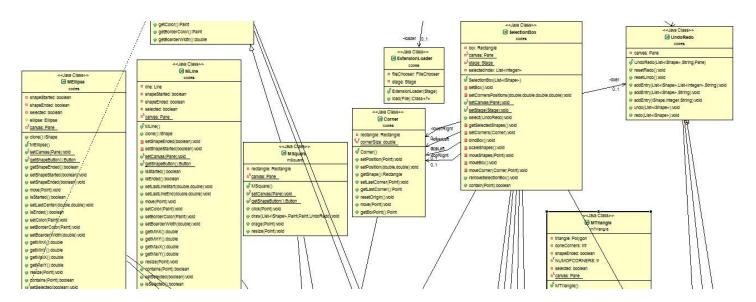
Part 3.



Part 4.



Part 5.



• Design Discerption.

The main classes that are the core of the program are:

- Ishape
- Painter
- MLine
- MRectangle
- MTraingle
- MEIllipse
- MCircle

IShape:

The interface which is the parent of all classes that represent the shapes modules.

Painter:

Extending Javafx Application this class builds the whole GUI of the program that deals with the User holding an array List of the shapes that are contained by the drawing area.

MLine:

implements IShape. Its main points are resizing and one for moving. Its responsible for drawing the line.

MRectangle:

implements IShape. Its main points are resizing and one for moving. Its responsible for drawing the rectangle.

MTriangle:

implements IShape. Its main points are resizing and one for moving. Its responsible for drawing the triangle.

MSquare:

Implements IShape and Extends from MRectangle. Its main points are moving and drawing the Square.

MElipse:

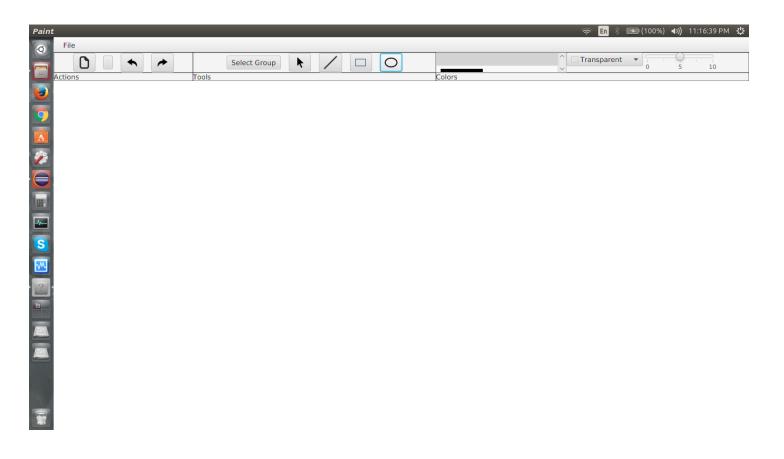
Implements IShape. It stands for drawing, moving the Ellipse.

MCircle:

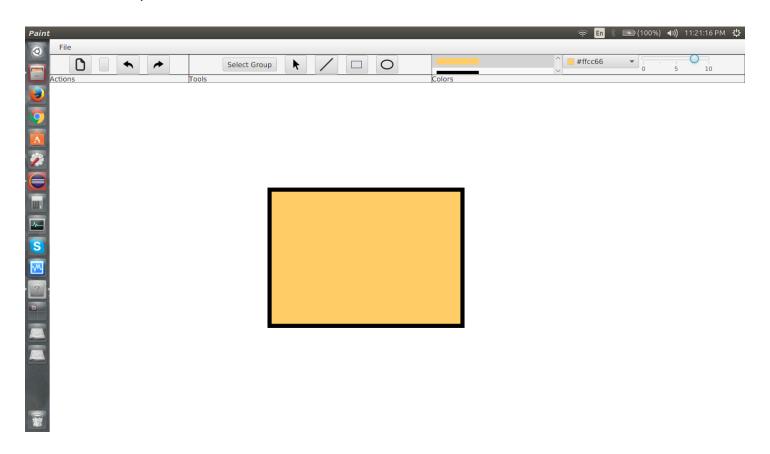
Implements IShape and Extends from MRectangle it stands for drawing and moving the Circle.

• Snapshots.

GUI Over view.

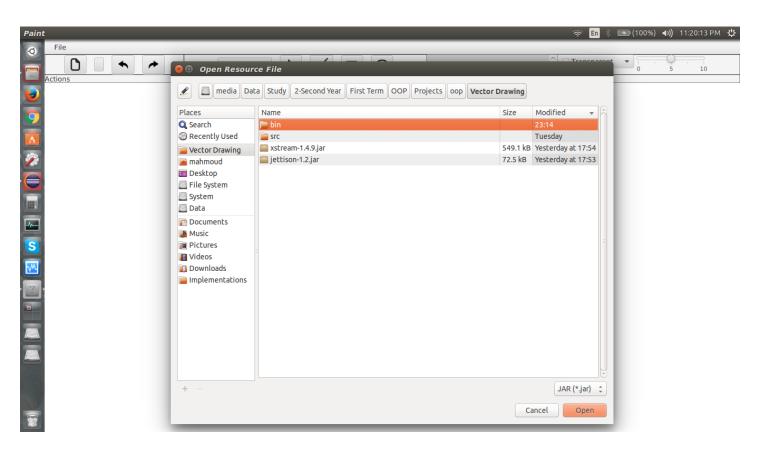


A draw process.

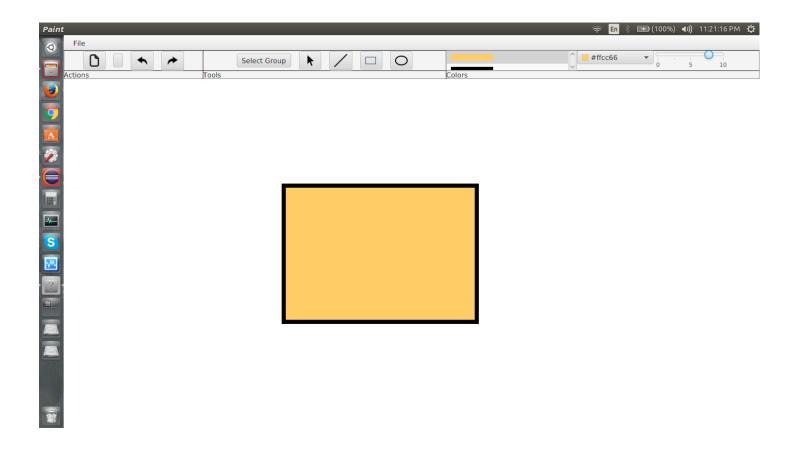


• User guide.

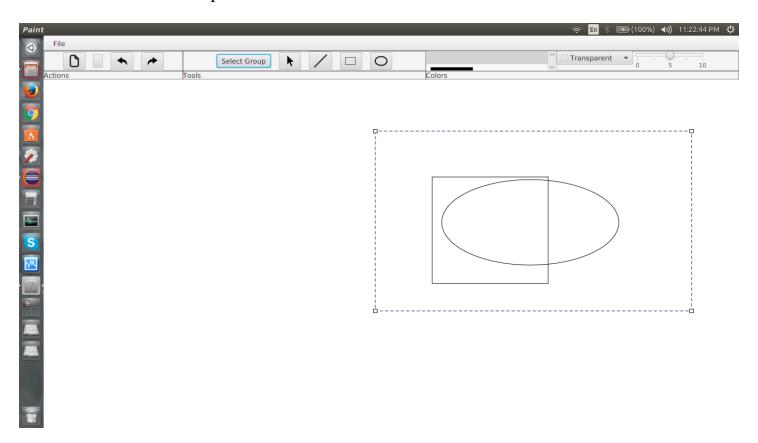
- TO draw a new shape Just press the button in the Toolbar.
- To load An extension from the file menu, choose load extension.



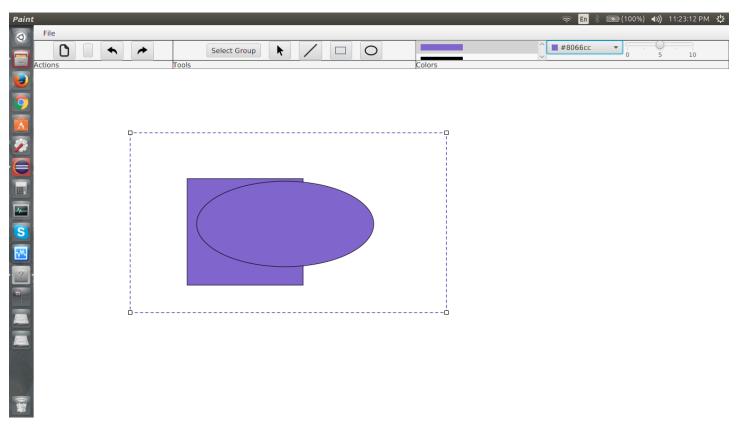
- To color a shape, use the color picker on the upper right.



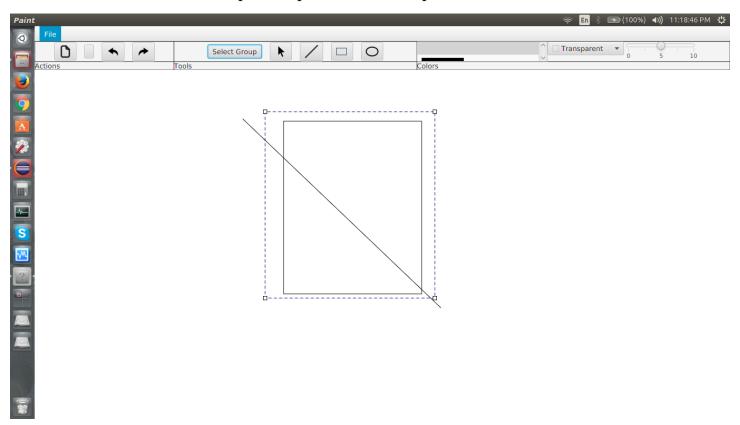
- To move A shape, use the selection tools on the tool bar. a. From this place.



b. To this place.



- To Select A Group of shapes use the Group selection tool.



Important side notes and assumptions:

- 1- Selecting one shape was neglected due to the ability of selecting multiple shapes and perform an operation on them.
- 2- The user has to click the shape button each time to create the shape.