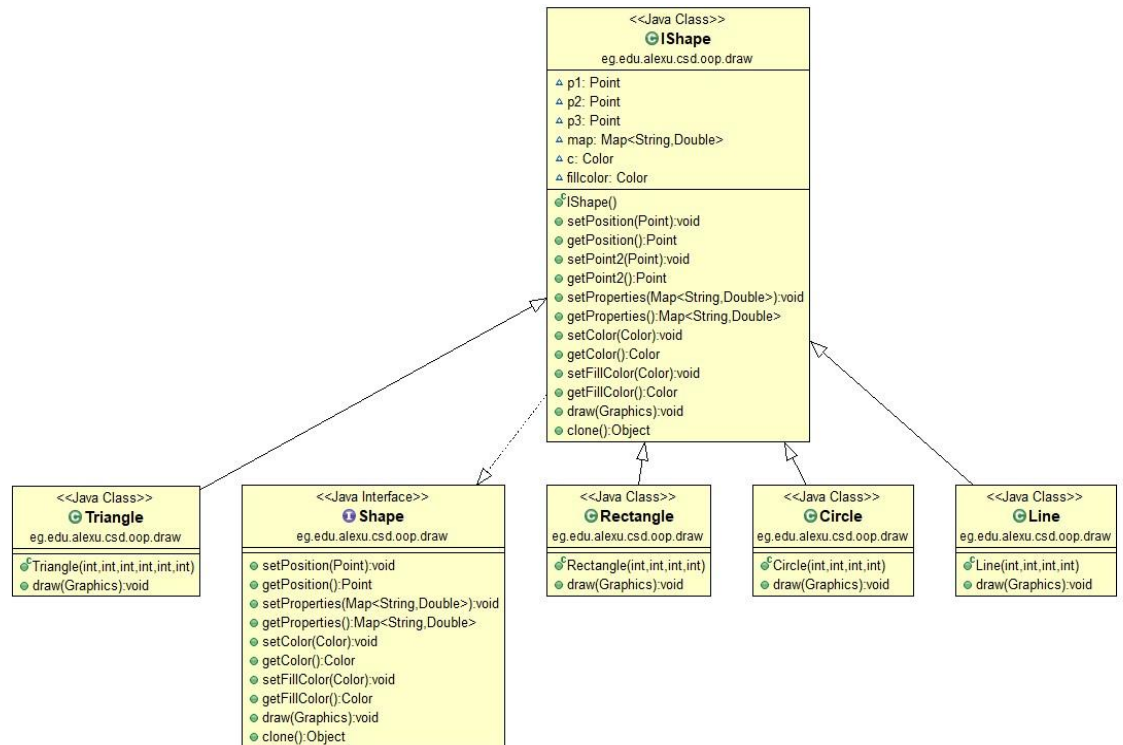


# Lab\_2 Report

## UML diagram:



## Description:

- There are two interfaces (*Shape \_ DrawingEngine*) that have been implemented in two classes (*IShape \_ IDrawingEngine*) which will help us while drawing.
- Draw:  
We draw by the function 'paint' in the class frame. We choose which shape to draw by setting the variable (counter) by a number to each shape. After the shape has been drawn we save it in the Linked List 'shapes'.
- Color ,Delete ,Resize ,Move  
Before we use any of these actions ,the button select must be clicked. Then the required action is made.

- **Undo , Redo**

we save the shape that has been modified in a stack (undo ,redo) . And we save the action that has been made in another stack (undoaction ,redoaction) .If the action performed was changing color we save the color in a stack (undocolor ,redocolor).

- **Save ,Load**

User is asked to determine where to save the file and then enter its name with the extension (.xml) and then the file is created and store the shape drawn .

To load the file user is required to choose file with xml extension and it will paint all the shapes saved in the sheet.

### User guide:

- You can draw by choosing the shape you want from the top and then draw freely
- You can modify (move ,delete, resize ,change color) the shape you want by clicking the related button but first you must select it .
- You can undo and redo any action performed by clicking the buttons related .
- You can save the drawing board in a file and load it .

## Snapshots of GUI :

