

# ASSIGNMENT 2

## PAIN

NAMES:

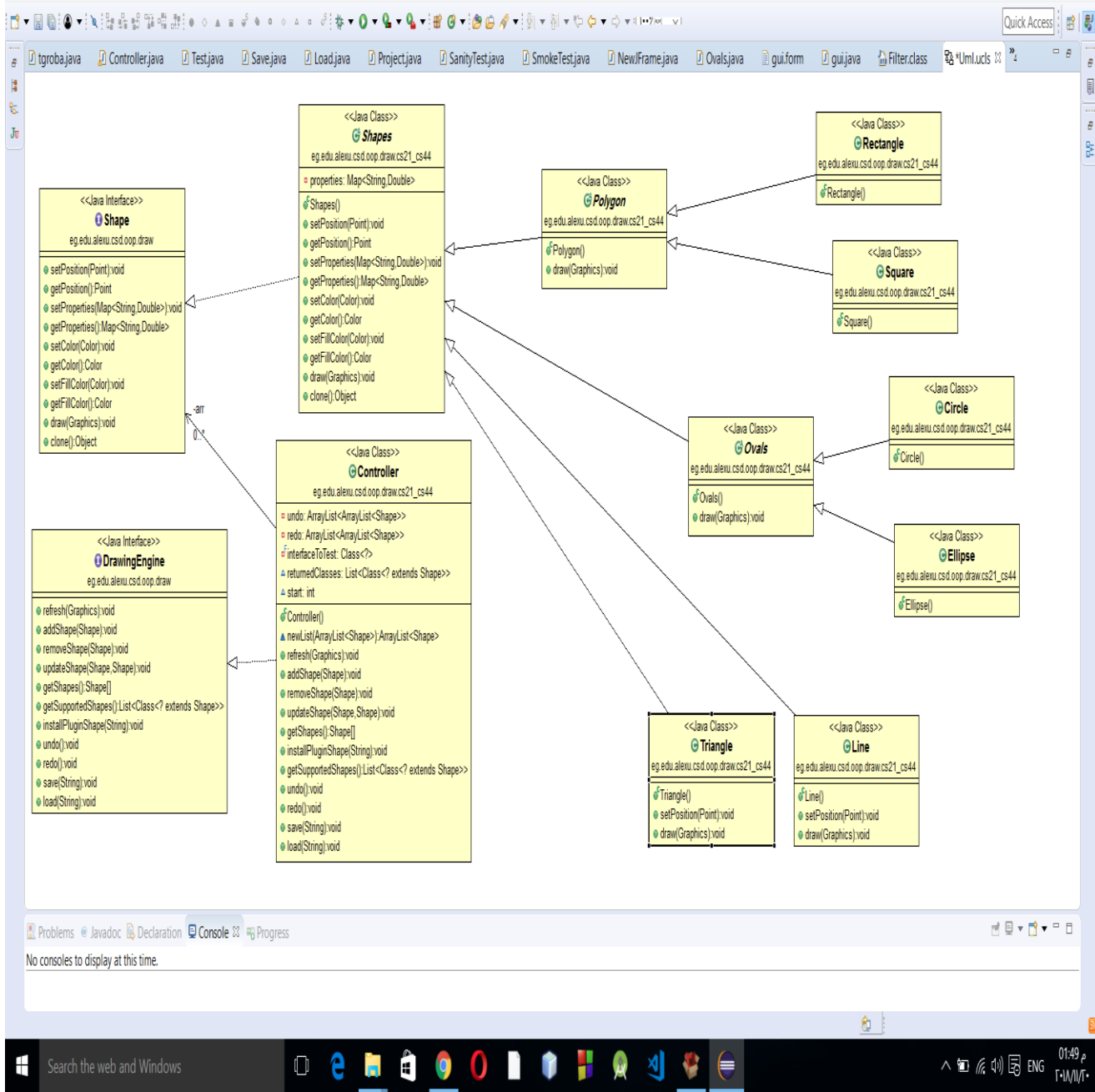
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elnashar (44).

2) Tarek Mohamed kamal (21).

# 1)UML:

eclipse-workspace - Draw/src/eg/edu/alexu/csd/ooop/draw/cs21\_cs44/UmlUcds - Eclipse

File Edit Navigate Search Project Run Window Help



## 2)Design Description:

### **- Shape Interface:**

-There is one abstract class "shapes" that implements this interface ,four classes will extend this abstract class.

1) Polygons: an abstract class that extends "shapes" ,two classes that extends polygon.

a)square

b)rectangle

2) Ovals: an abstract class that extends "shapes" ,two classes that extends polygon

a)circle

b)ellipse

3) Line: a class that extends "shapes" contain all needed function to draw a line.

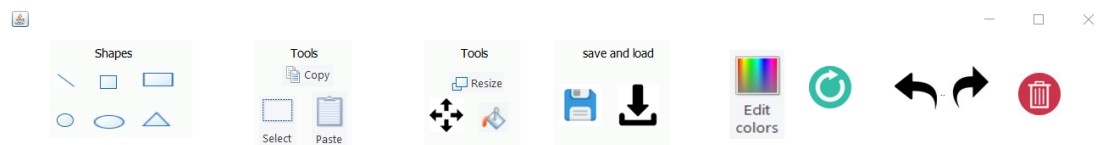
4) Triangle: a class that extends "shapes" contain all needed functions to draw a triangle.

### **-Draw engine interface:**

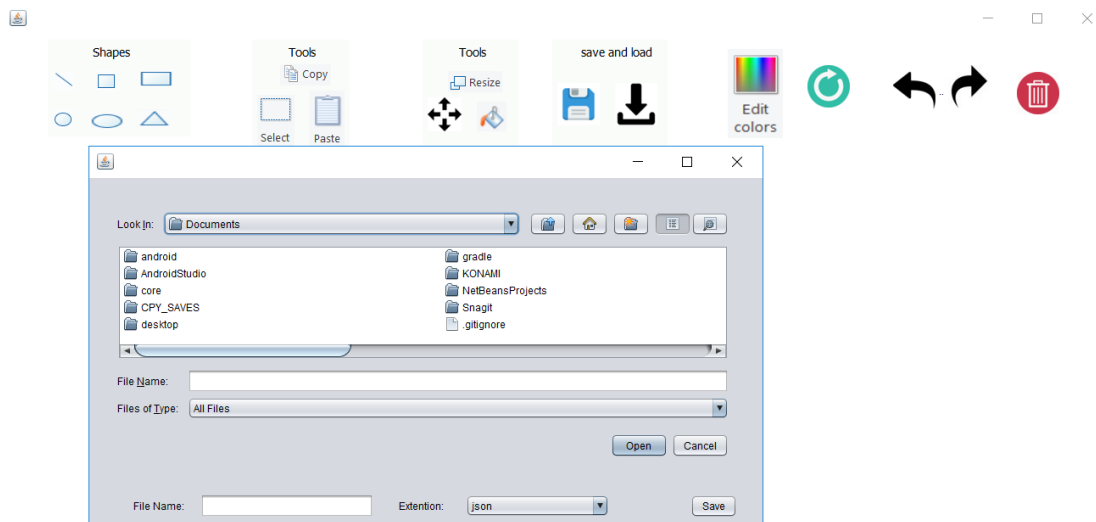
There is one abstract class that implements the interface "Controller" this class controls all the drawn shapes , editing ,undo ,redo ,save and loading external libraries from external jar.

### 3) SnapShots:

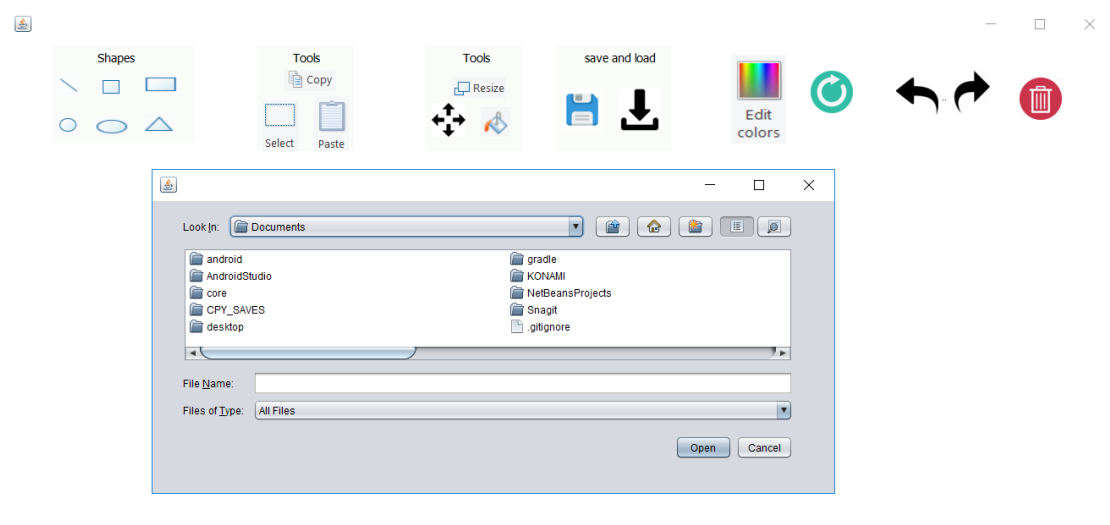
1- Start project.



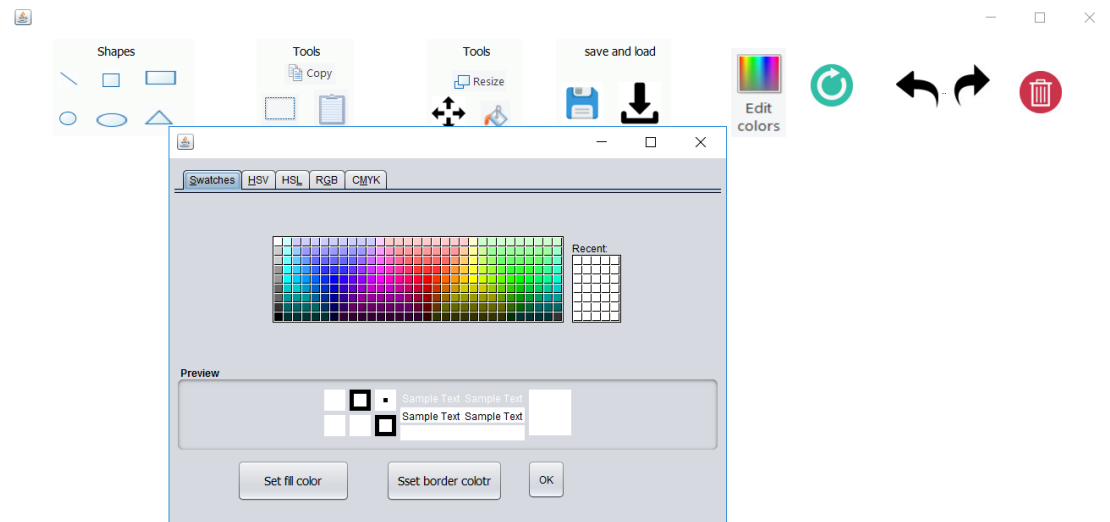
## 2- Save.



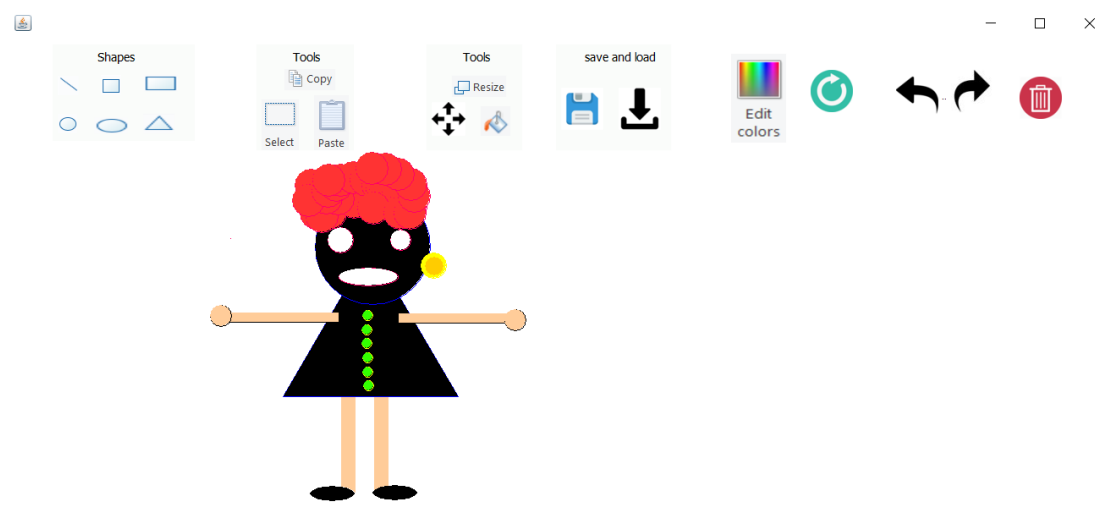
## 3- Load.



## 4- Choose color.

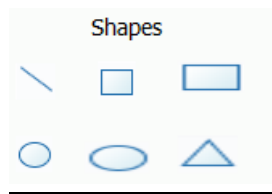


## 5- Final project.



## 4)User guide:

### A) Painting:

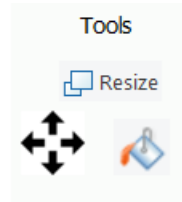
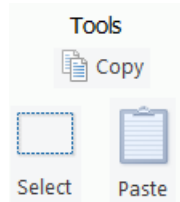


1- You should select the shape you want to draw.

2- Click on the screen to choose where to draw the shape then drag it to give the shape its dimensions and properties.

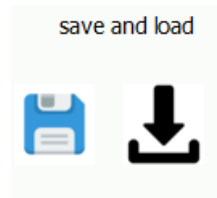


## B) Editing:

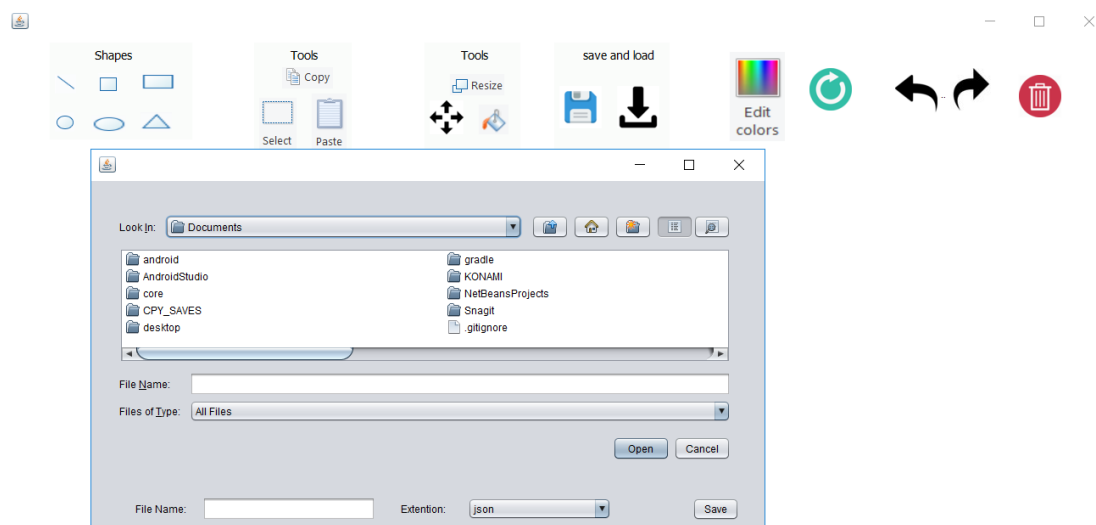


- 1) Select :click on it then select the shape you want to edit.
- 2) Copy : click on it then select the shape you want to copy.
- 3) Paste :after selecting the shape to copy, click on the screen to paste it in this position where you clicked.
- 4) Resize :click on it then click on the shape you want to resize by dragging you will change its dimensions.
- 5) Move :by clicking on the shape you want to move drag it with your cursor on the screen to change its position.
- 6) Repaint :you should choose the colors first then click on the shapes you want to change its color to the new ( chosen ) one.

## C) Save and Load:

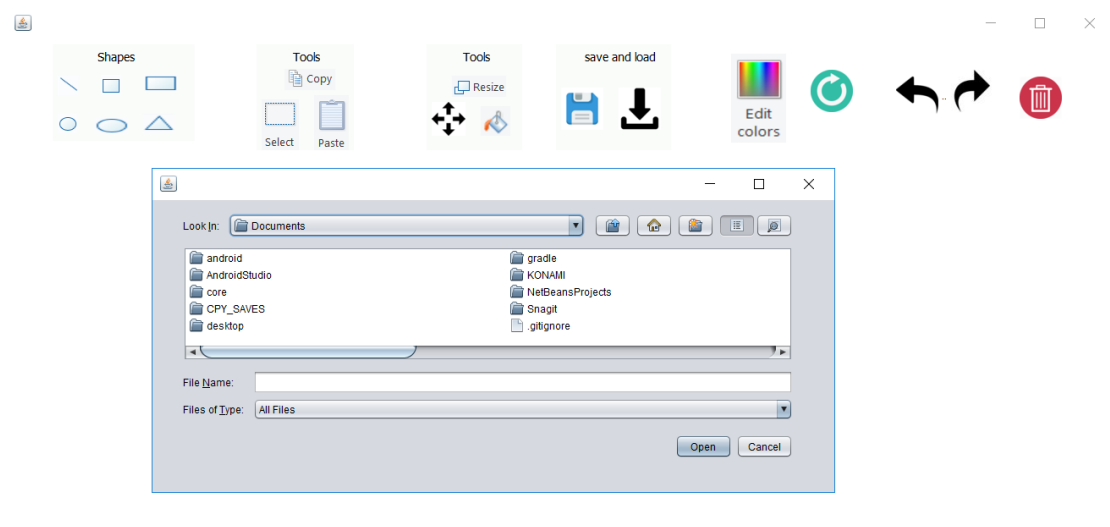


### 1) Save:



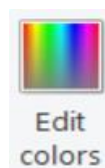
-To save the file ,choose the destination to save the file at then write its name then choose the file extension ,by clicking on save your file will be save in the chosen destination.

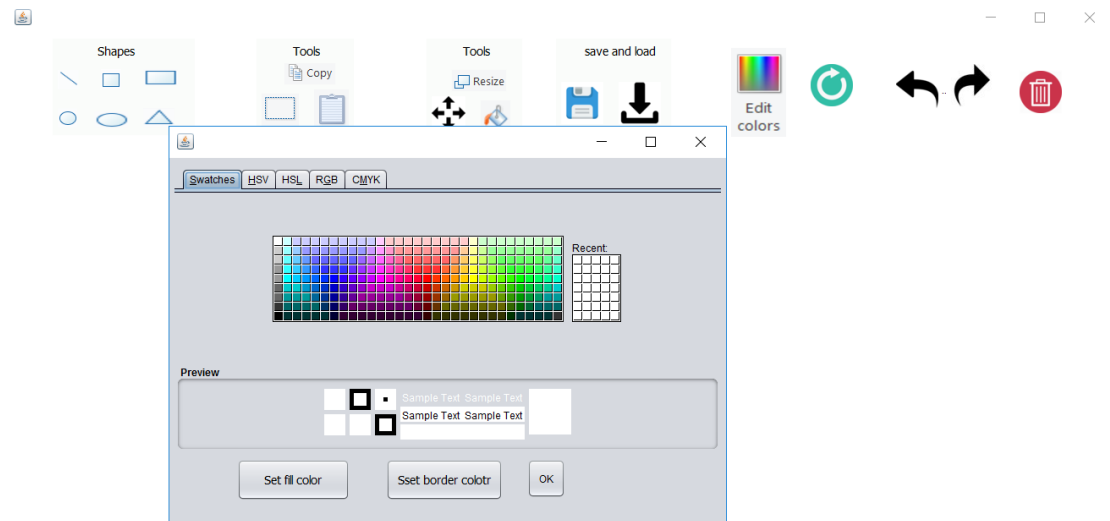
## 2) Load:



-First choose the file you want to load ,by clicking open you will load it to your program ,click refresh to paint the loaded file.

## D) Choose Color:





- Click on the above icon to open this frame, then choose your fill or border color by choosing it then set it by pressing the button.

E) Refresh:



- Click on it to repaint the shapes in the screen.

## F) Undo and Redo:



- Click on the back arrow to undo the last steps and on the front arrow to redo the steps.

## G) Remove:



- Click on it then click on the shapes you want to delete.