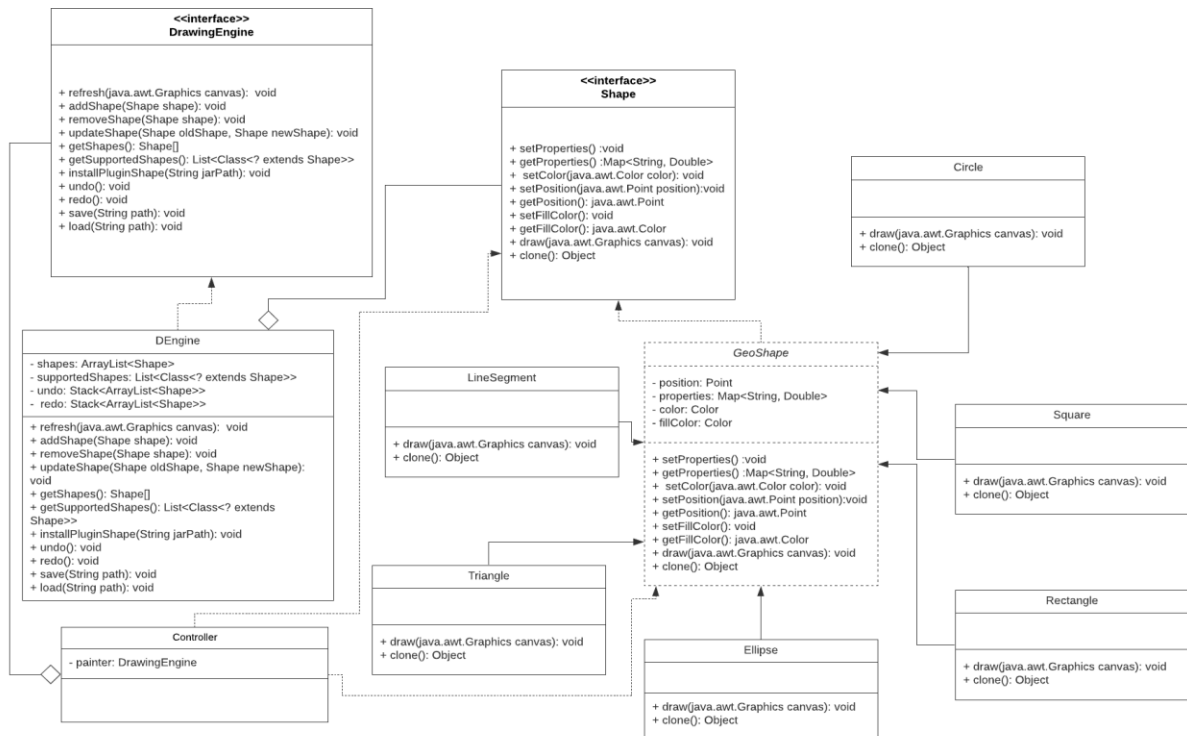


## Lab 2 pro gramming report

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# UML diagram:

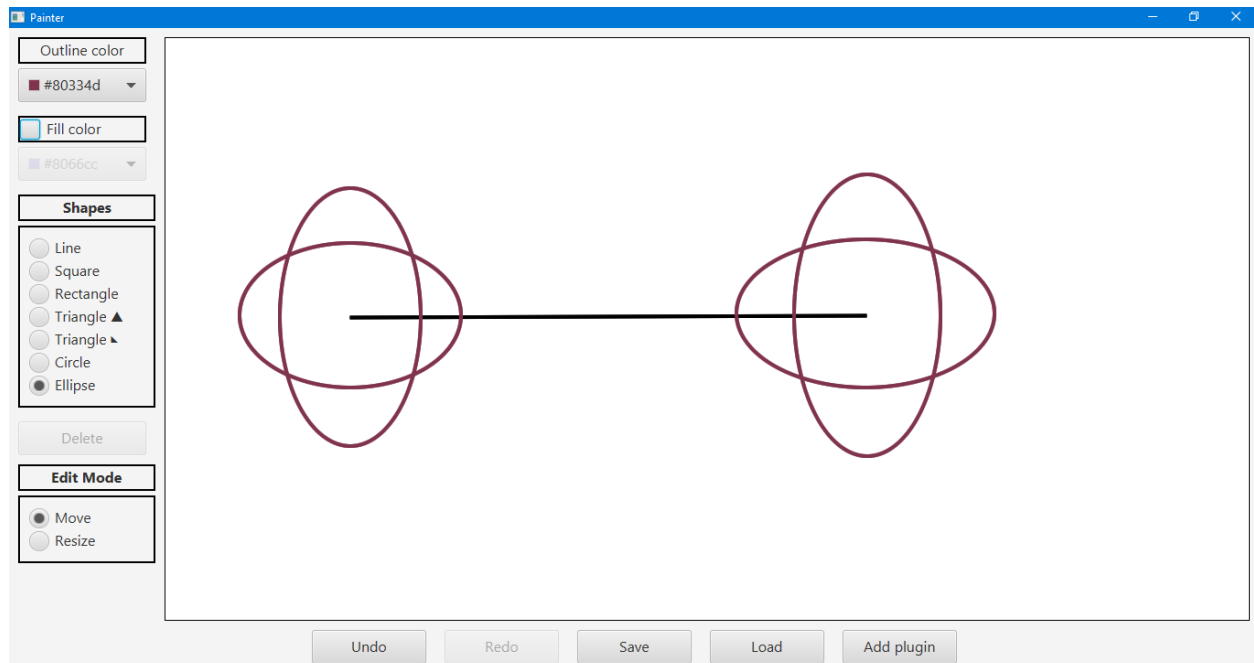
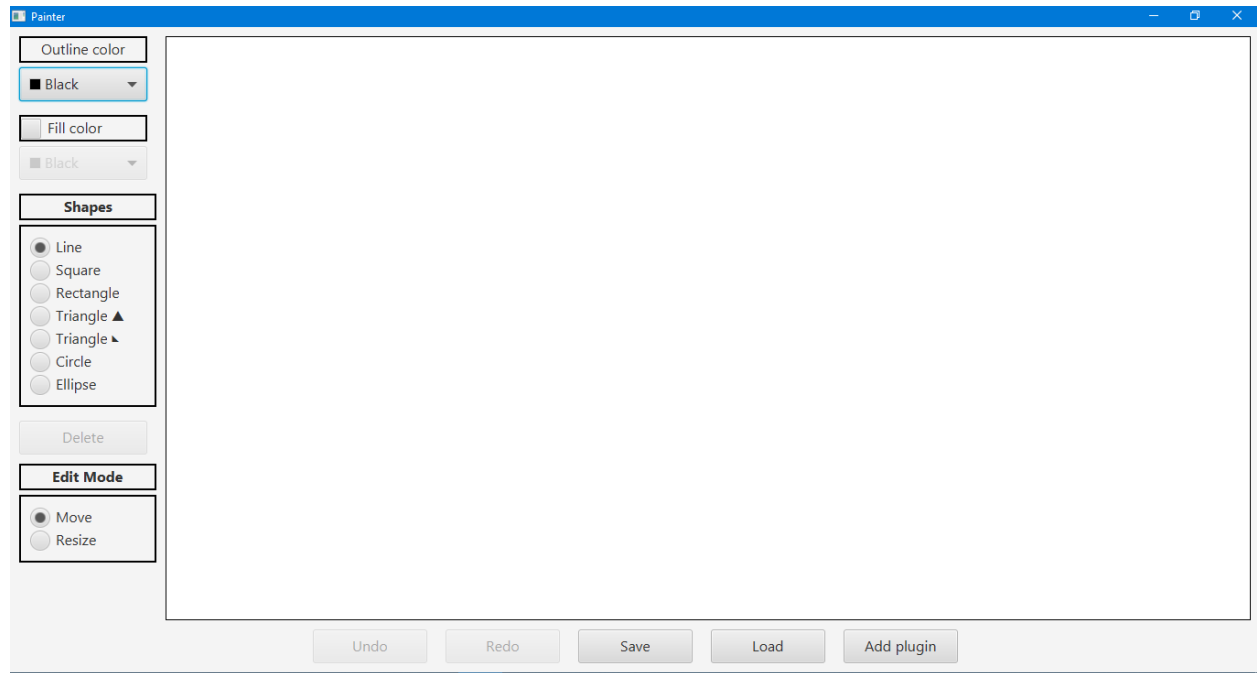


## **User guide:**

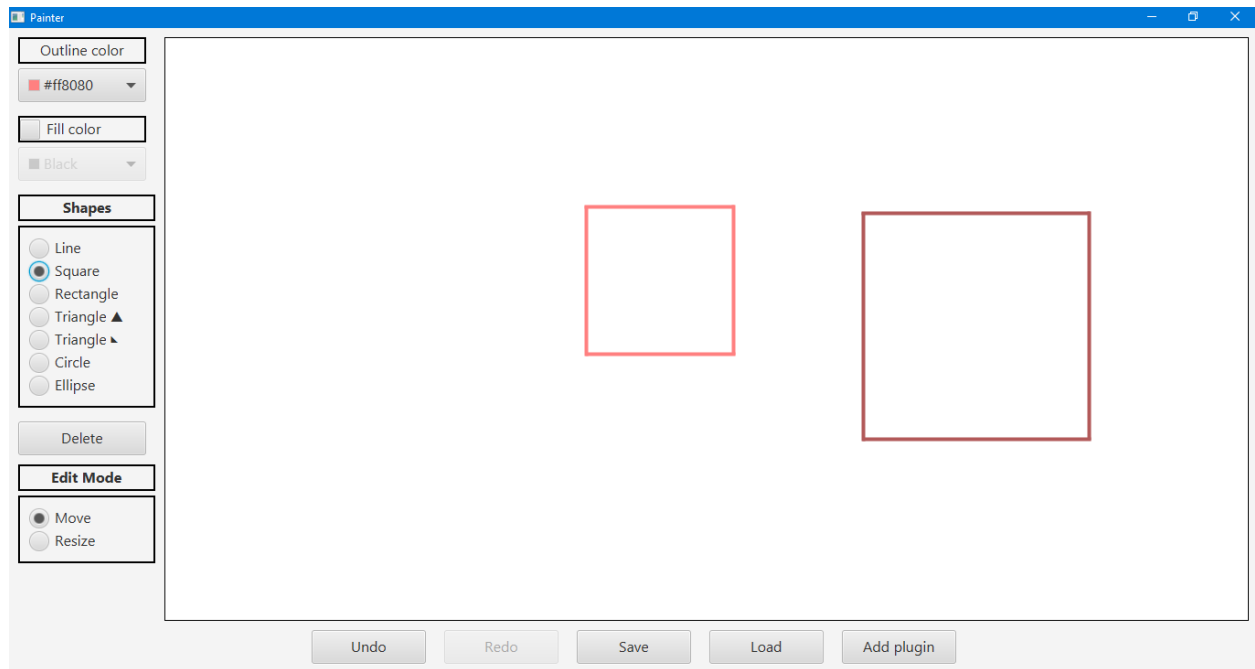
- User presses and drags to draw a shape.
- User selects the item by clicking on any point across its area.
- The user should select the item and delete it using the delete button.
- The user can resize or move a shape by pressing and dragging after selecting the shape.
- The user can undo and redo any add, remove or update operations up to 20 steps.
- The user can save drawings in both xml and json format and choose where to save the file.
- The user can load drawing from both xml and json format from a specific directory.

# Snapshots:

The interface:



Selecting the shape makes the borders darker:



## **Description of the design:**

- An abstract class implements Shape interface.
- Six basic shapes extend the abstract class.
- Any class which implements Shape interface can be dynamically loaded at runtime.
- GUI follow the MVC pattern using JavaFx Library
- A bridge library is used in order to make the GUI compatible with Shape and DrawingEngine Interfaces.
- DEngine class implements DrawingEngine interface.
- GUI controller makes an instance of DEngine class.