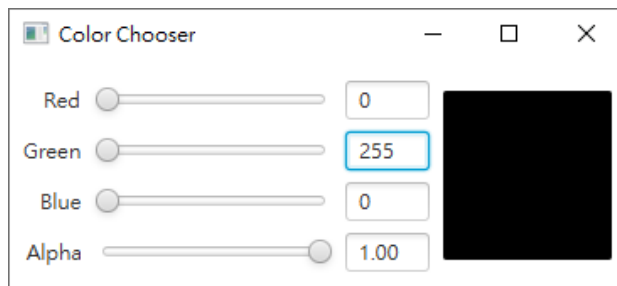


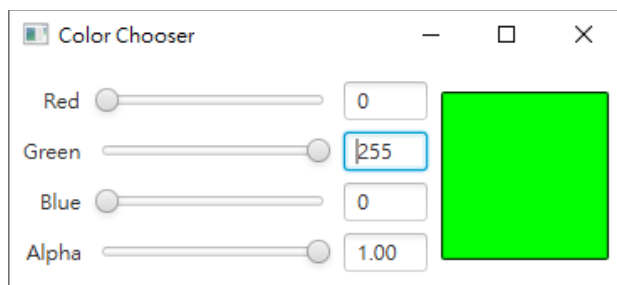
1. Color Chooser

Please modify the code in HW5 problem2. Write a **JavaFX program** to change the values of RGB and alpha not only by **slider** but also by **text field**. The values in sliders should be the same as those in text fields.

Sample Output



After pressing "Enter":



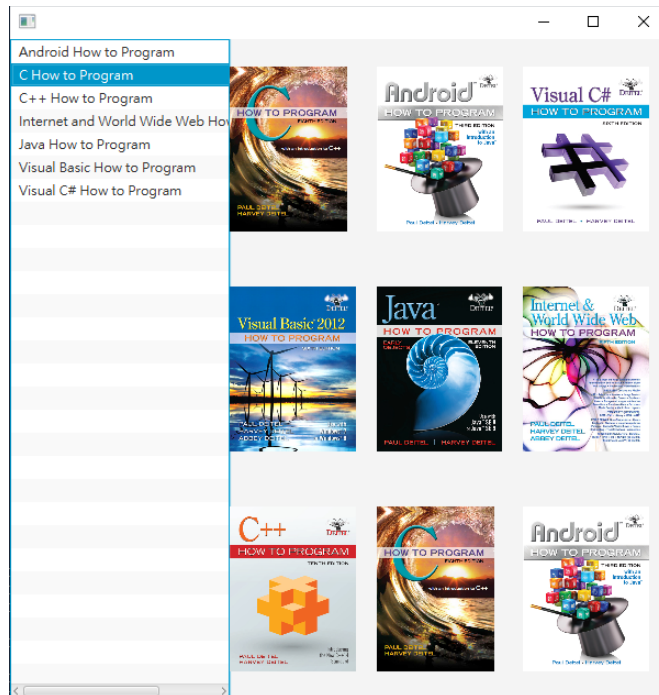
2. Cover Viewer

Please modify the code in HW5 problem3. Write a **JavaFX program** to choose the images to display. The following requirements are needed:

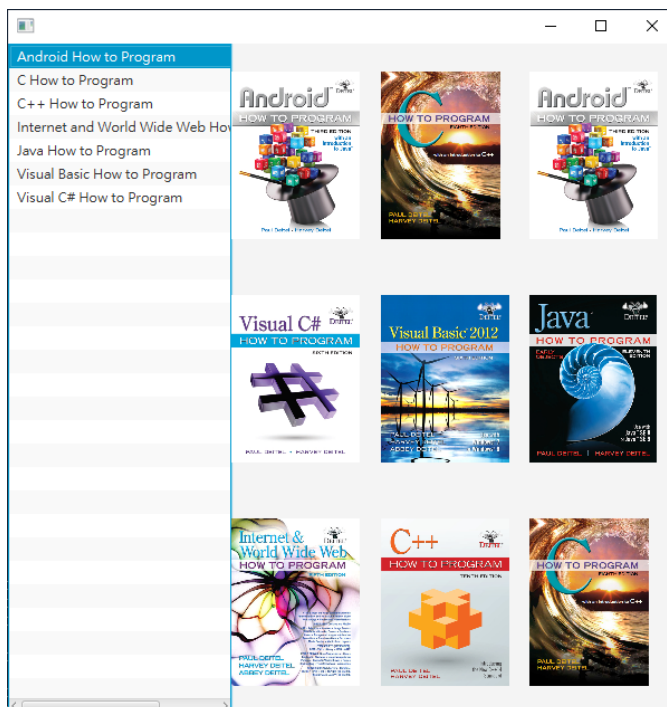
- 1) Left side: A list of the description of the images to display.
- 2) Right side: Nine ImageView's on a GridPane.
- 3) When you choose different description, display the corresponding image on the right side. You need to display your choice in order. The first image is displayed on the first ImageView. After choosing the second image, the first one is displayed on the second ImageView, and the new one is displayed on the first ImageView. The order 1~9 of ImageView is from left to right, top to bottom.

- 4) If all imageViews are full, just discard the last one and add the new one at the first imageView.

Sample Output



After selecting “Android How to Program”, the imageView’s become:



3. Painter

Please modify the code in HW5 problem1. Write a **JavaFX program** to draw **lines**. The following requirements are needed:

- 1) Use `javafx.scene.shape.Line` to draw lines.
- 2) If you just press, not drag, on the canvas, there should be a point on the canvas.
- 3) Press the “Undo” button to clear the last stroke.

Note

Draw line, start point (x1, y1), end point (x2, y2)

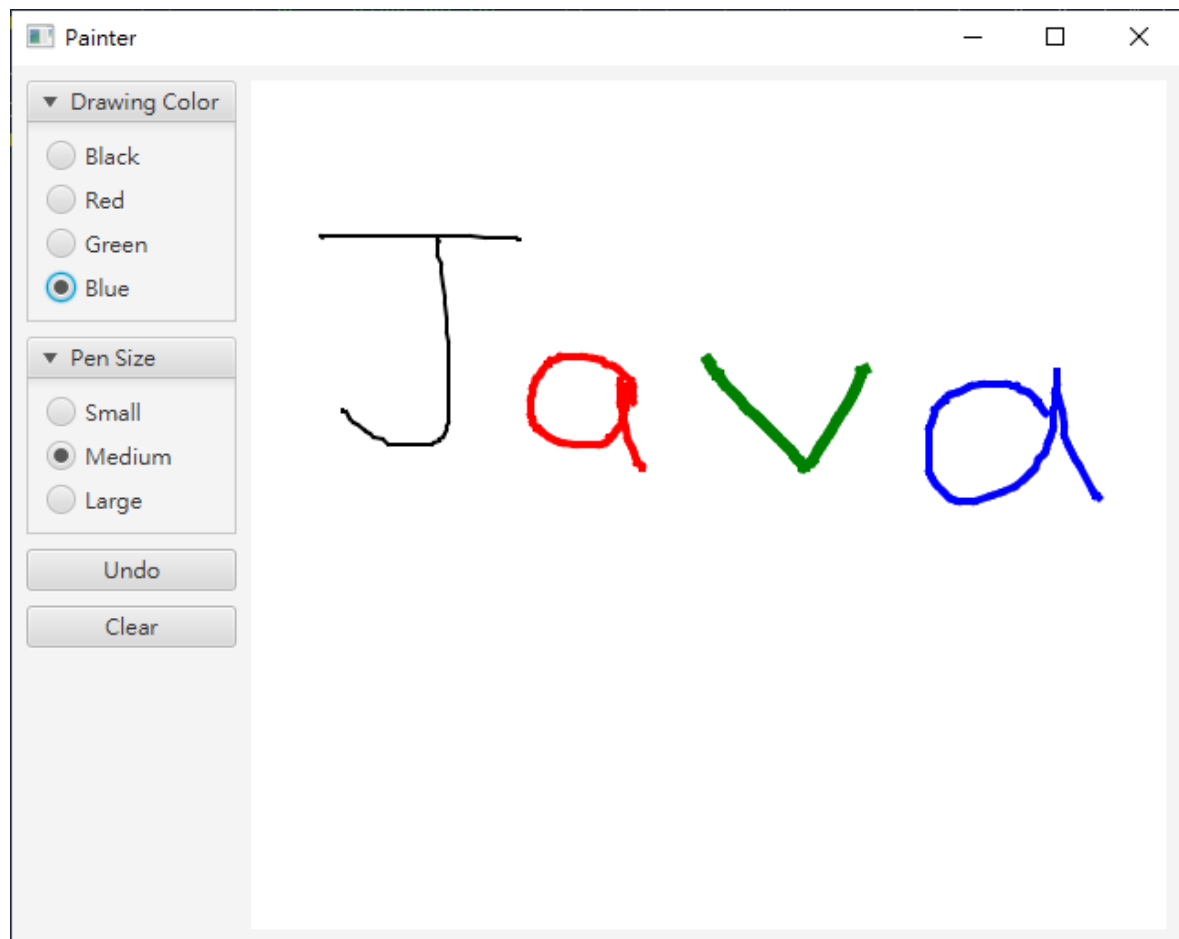
```
Line newLine = new Line(x1, y1, x2, y2);
```

Set the color of line

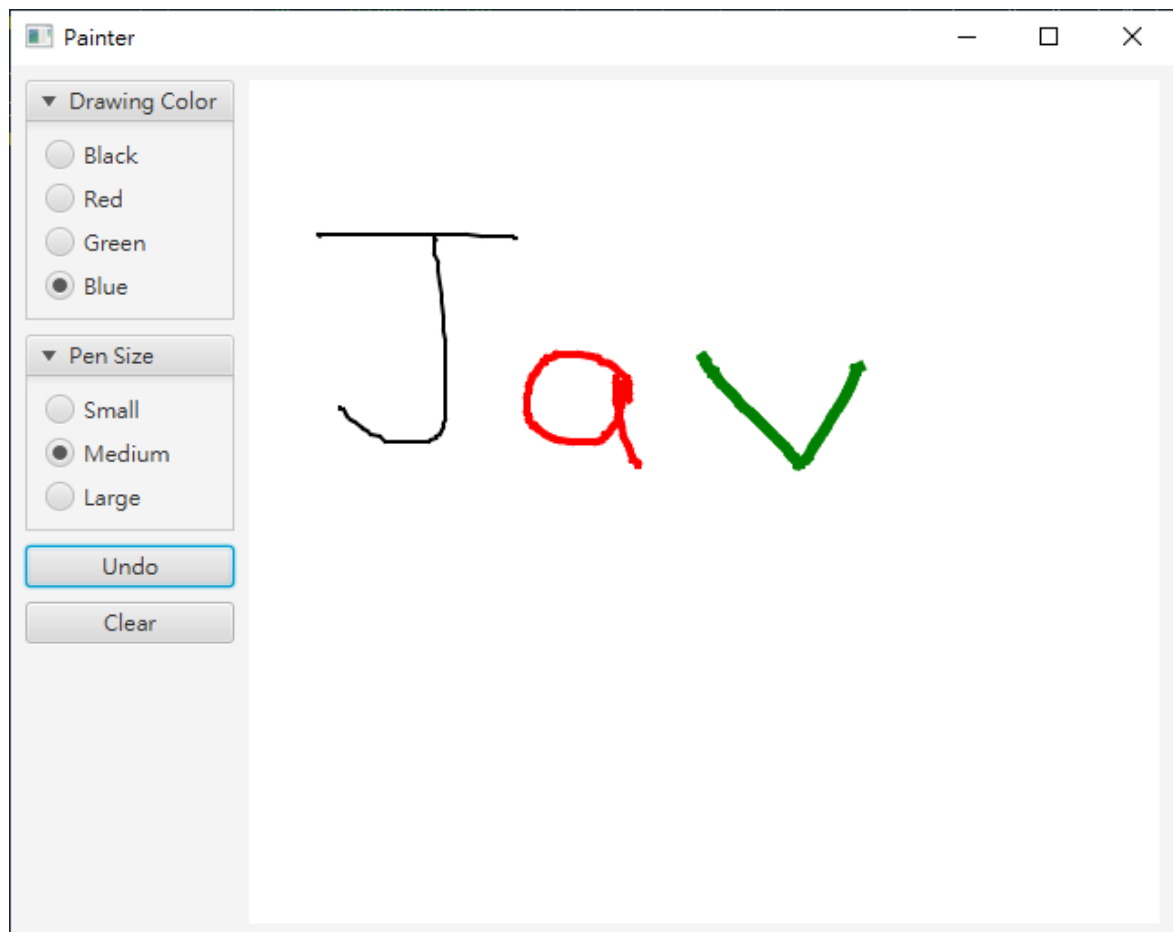
```
newLine.setFill(color)
```

```
newLine.setStroke(color)
```

Sample Input and Output



Press the “Undo” button:



4. Advanced Painter

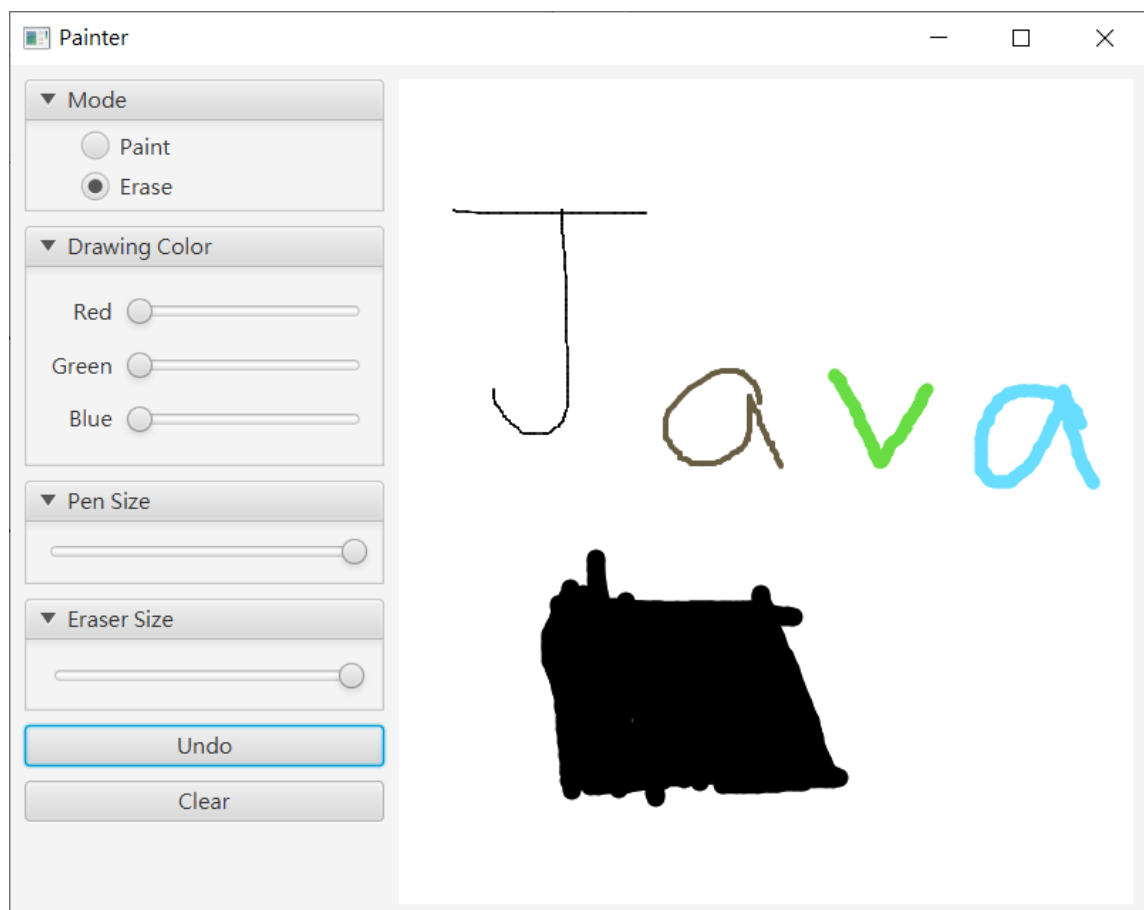
According to the previous problem and HW5 problem2, you should modify your code with the following requirements:

- 1) Mode: Contain two modes: “Paint” mode and “Erase” mode.
 - a) “Paint” mode: the same as the previous problem.
 - b) “Erase” mode: add the **eraser function**.
- 2) Drawing Color: Change the radio buttons into sliders. You can change the color by moving the slider.
 - a) fx:id: redSlider / greenSlider / blueSlider
 - b) Max: 255 / 255 / 255
 - c) Min: 0 / 0 / 0
 - d) Value: 0 / 0 / 0
 - e) Block Increment: 1 / 1 / 1

- 3) Pen Size: Change the radio button into slider. You can change the pen size by moving the slider.
- a) fx:id: penSizeSlider
 - b) Max: 10
 - c) Min: 1
 - d) Value: 1
 - e) Block Increment: 1
- 4) Eraser Size: At “Erase” mode, you can change the eraser size by moving the slider.
- a) fx:id: eraserSizeSlider
 - b) Max: 10
 - c) Min: 1
 - d) Value: 1
 - e) Block Increment: 1

Sample Input and Output

“Paint” mode



“Erase” mode

