LAB11 : Server-Client RMI Whiteboard

1. Introduction
   In this project, you will learn about GUI programming. You should implement a paint program and connect it to a network via RMI. That is, both paint programs share the same result.

2. Design
   Using the given skeleton code which includes pre-defined methods, Students should fill the constructor and method. RMI module is already implemented as well.

3. Requirements
   Implement a button to select shapes (Line/Circle/Rectangular) and a choice menu to select between color options (Black/Red/Green/Blue) and a ShapeContainer to perform drawing into the paint.
4. Running program
In the command line, move to class directory and type following command

```
rmic WhiteBoardServiceImpl
Java WhiteBoardServiceImpl server localhost
Java WhiteBoardServiceImpl client localhost
```

5. Implement

A. Add a button
1. Make a Panel instance in Constructor of DrawingFrame
   ```
   buttonPanel = new Panel();
   ```

2. Add a button(Line, Circle, Rectangular, Clear ALL)
   ```
   new ButtonController(this);
   Button b1 = new("line");
   jF.getButtonPanel().add(b1);
   (...)
   ```

3. align panel at South
   ```
   getContentPane().add("South", buttonPanel);
   ```

4. Set a action when button is clicked.
   ```
   if(ae.getActionCommand().equals("line")) {
       bT.setShape(new Shape().LINE);
   }
   ```
B. Add a choice menu
C. Add a name panel
D. Add a ShapeContainer

E. Declare MouseController Class
   Declare CanvasMouseController in constructor of DrawingFrame then Define Constructor and Method. You don't need to define all the method.
   (hint : DrawingFrame class - removeFrontShape(), addShape())

F. Draw Line, Circle, Rectangular
   First of all you need to call all of Paint Method. Also fill Line/Circle/Rectangular method
Blue: Link(Listener)
Red: Class Hierarchy
Green: Contain