# 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.
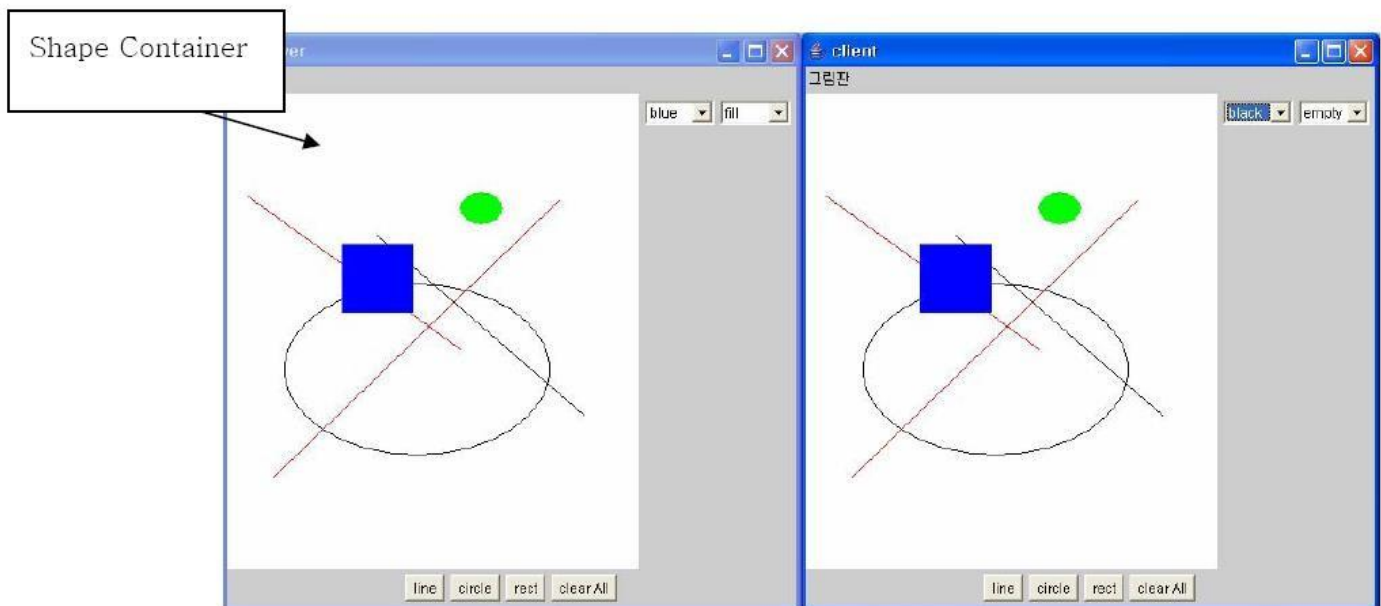
4. Running program

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();
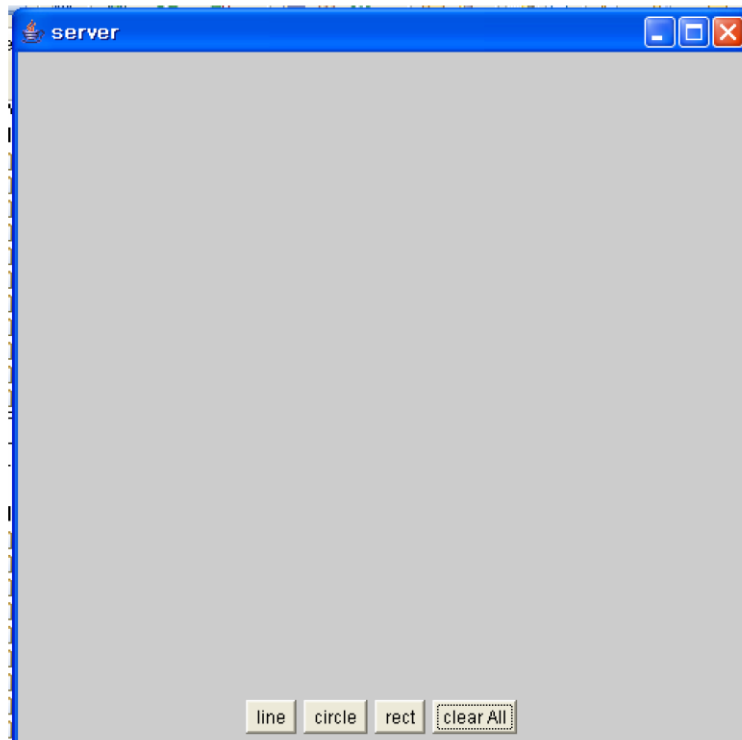
2. Add a button(Line, Circle, Rectangular, Clear ALL)

new ButtonController(this);

Button b1 = new("line");

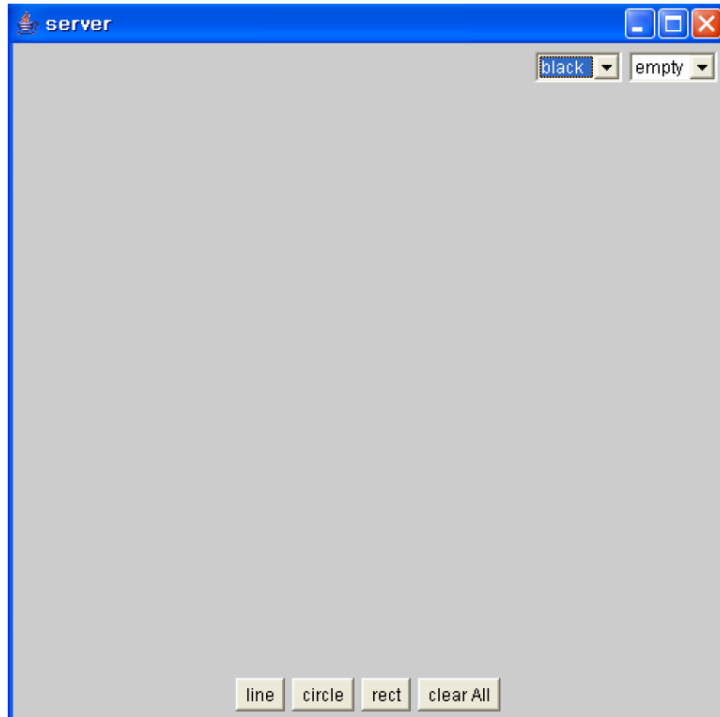jF.getButtonPanel().add(b1);

(...)

3. *align panel at South*

getContentPane().add("South", buttonPanel);
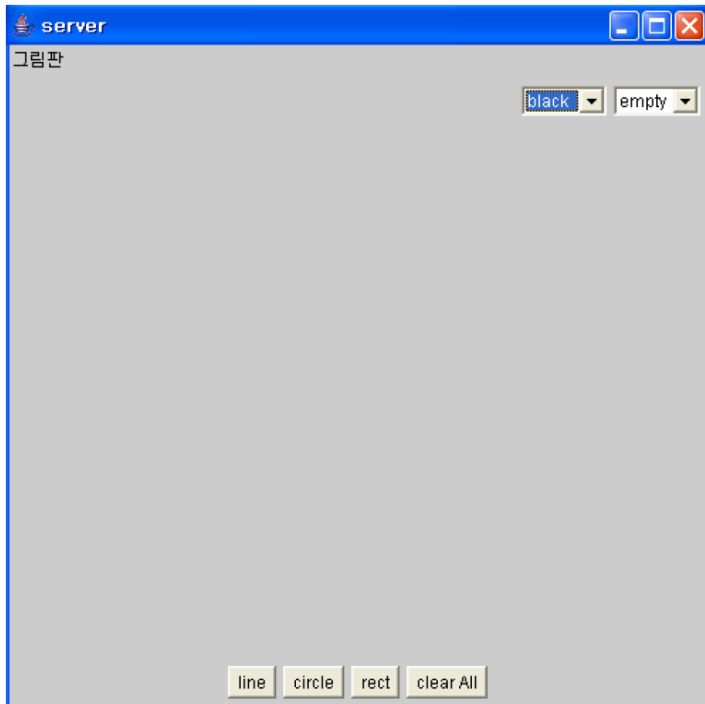
4. Set a action when button is clicked.

if(ae.getActionCommand().equals("line")) {
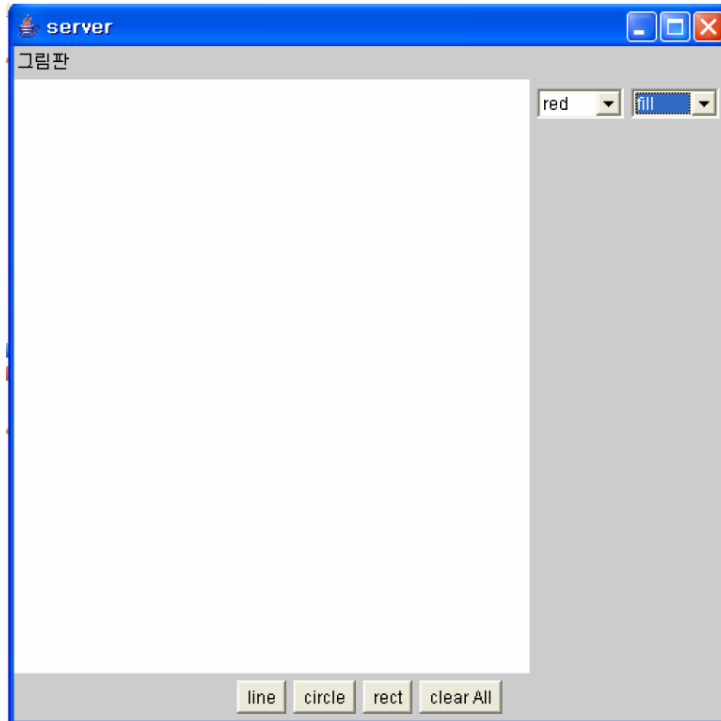
bT.setShape(new Shape().LINE);

}

B.   Add a choice menu

C. Add a name panel

D. Add a ShapeContainer

E. Declare MouseController Class

Decalre 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	