

TERM PROJECT : Server-Client RMI Whiteboard

1. Introduction

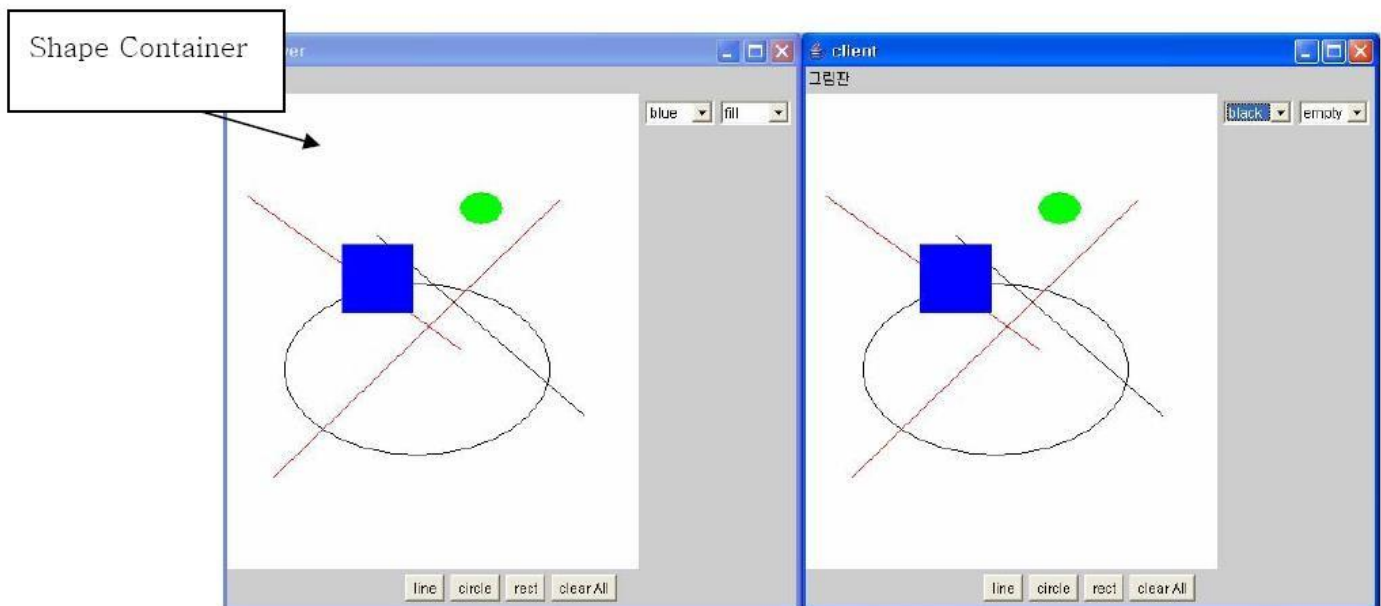
In this project, you will learn about GUI programming. You should implement a paint program and connect it to a network via RMI. That is, both paint programs share the same result.

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)

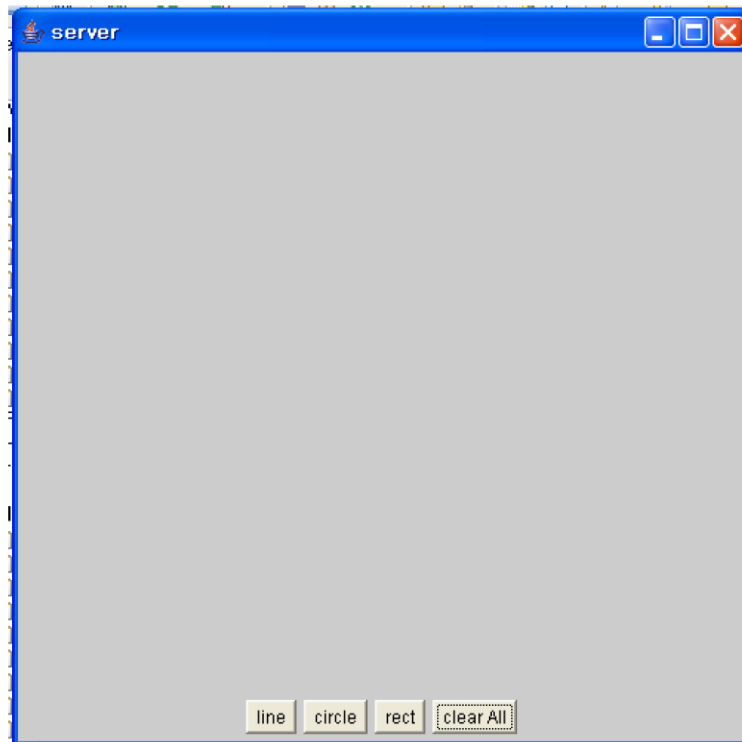
```
new ButtonController(this);
Button b1 = new("line");
jF.getButtonPanel().add(b1);
(...)
```

3. *align panel at South*

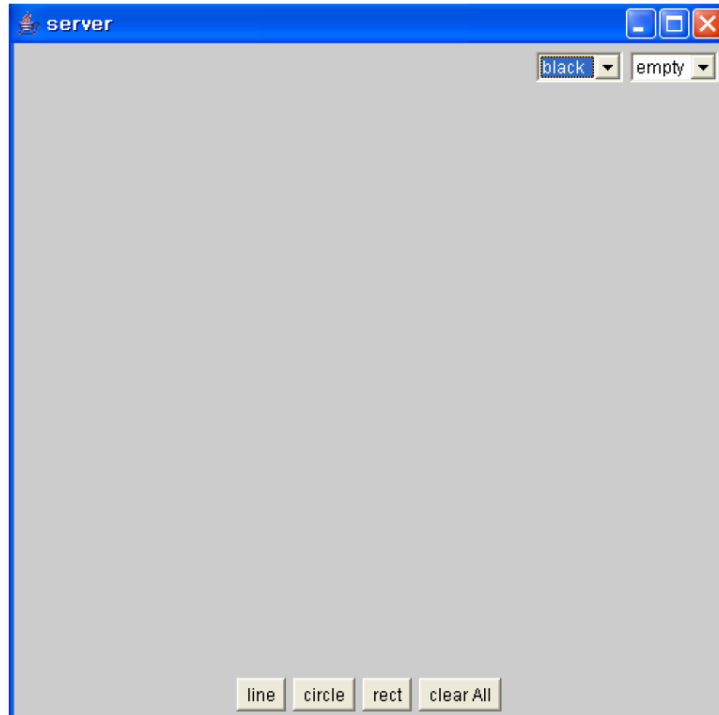
```
getContentPane().add("South", buttonPanel);
```

4. Set a action when button is clicked.

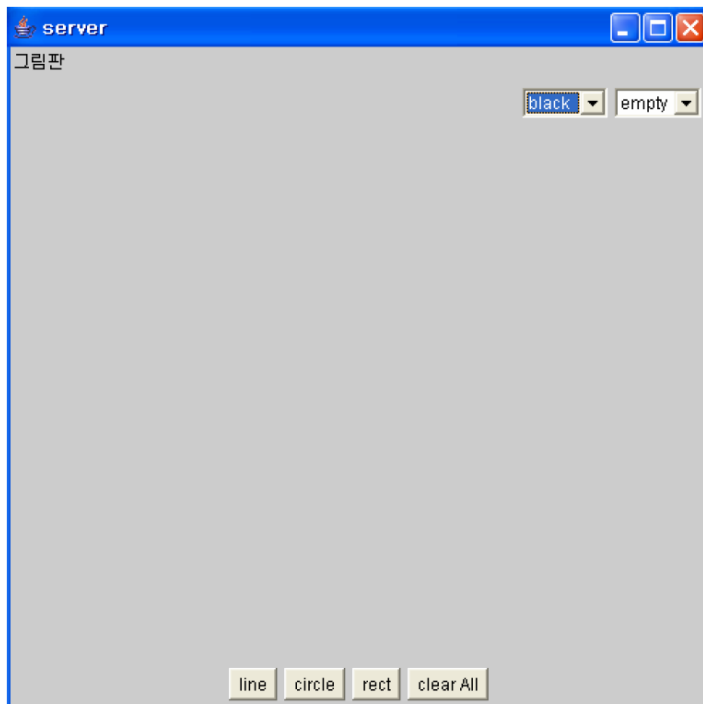
```
if(ae.getActionCommand().equals("line")) {
    bT.setShape(new Shape().LINE);
}
```



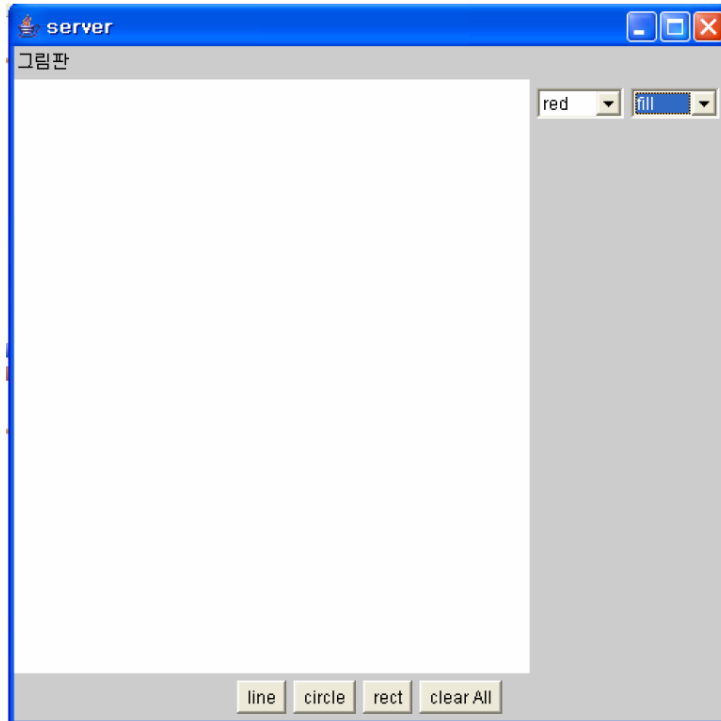
B. Add a choice menu



C. Add a name panel



D. Add a ShapeContainer

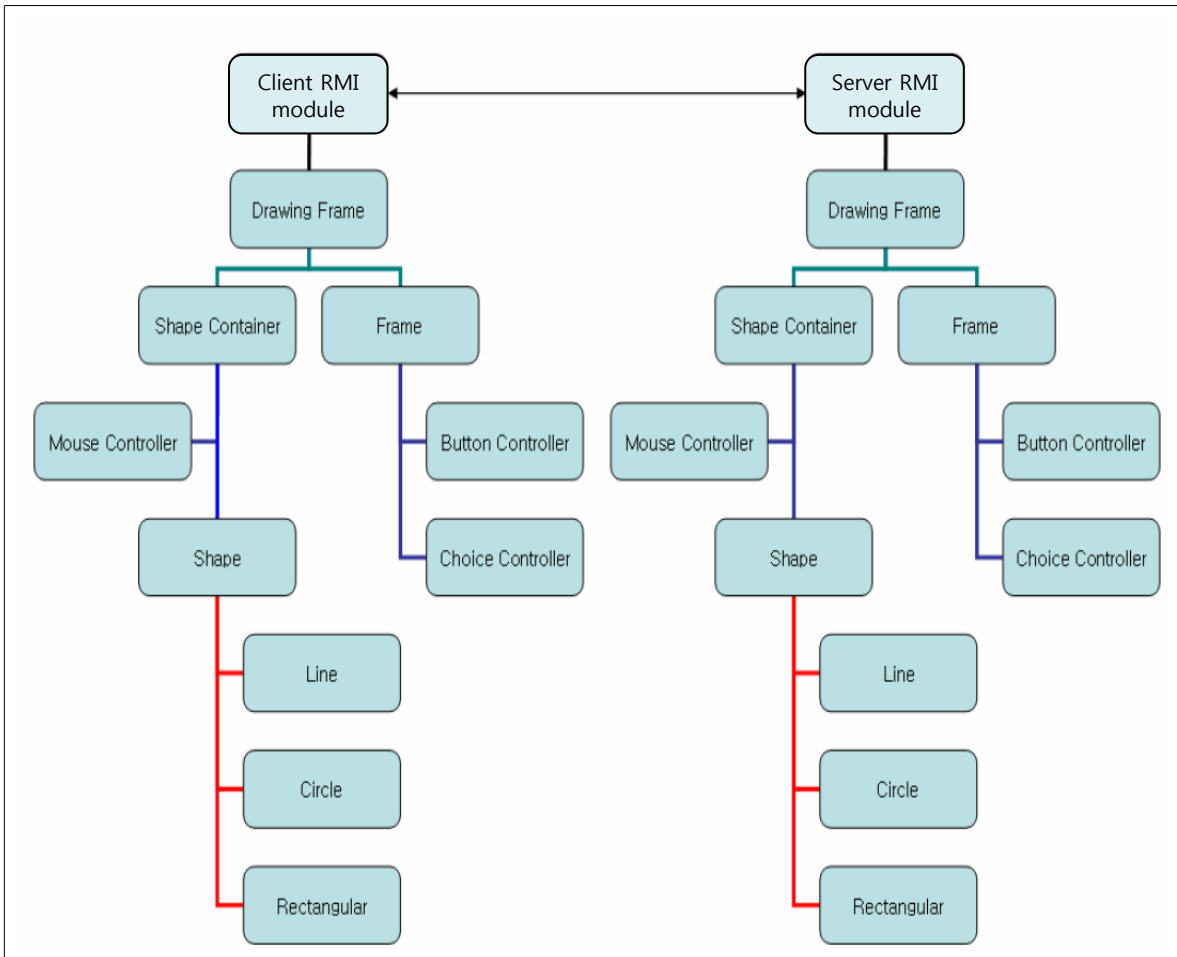


E. Declare MouseController Class

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

6. Submission – Compressed file that source code and report

1. Source Code

- It is recommended to create a batch file for compiling such Compile.bat

2. Report (PDF, DOC)

- How to run the program
- Developing environment
- Detailed description of code
- Need outputs of the program

3. How to submit

Email: cp2016s@gmail.com

Deadline: June 13, until 23:59:59

Please Keep These Submission Format!!

Submission format:

Mail title:

[COMP-PRJ]student id_NAME
(ex: [COMP-PRJ]2016-12345_JEESOOMIN)

Compressed filename:

student id_NAME.zip(tar)
(ex: 2016-12345_JEESOOMIN.zip)

★ Caution

- **Over the deadline; after June 08, 23:59:59 – minus 20% of your grade**
- **2days late, 0 point**
- **Do not keep the file format – minus 20% of your grade**
- **Compile error – 0 point**
- **Code plagiarism using Clone Checker – related students 0 point**