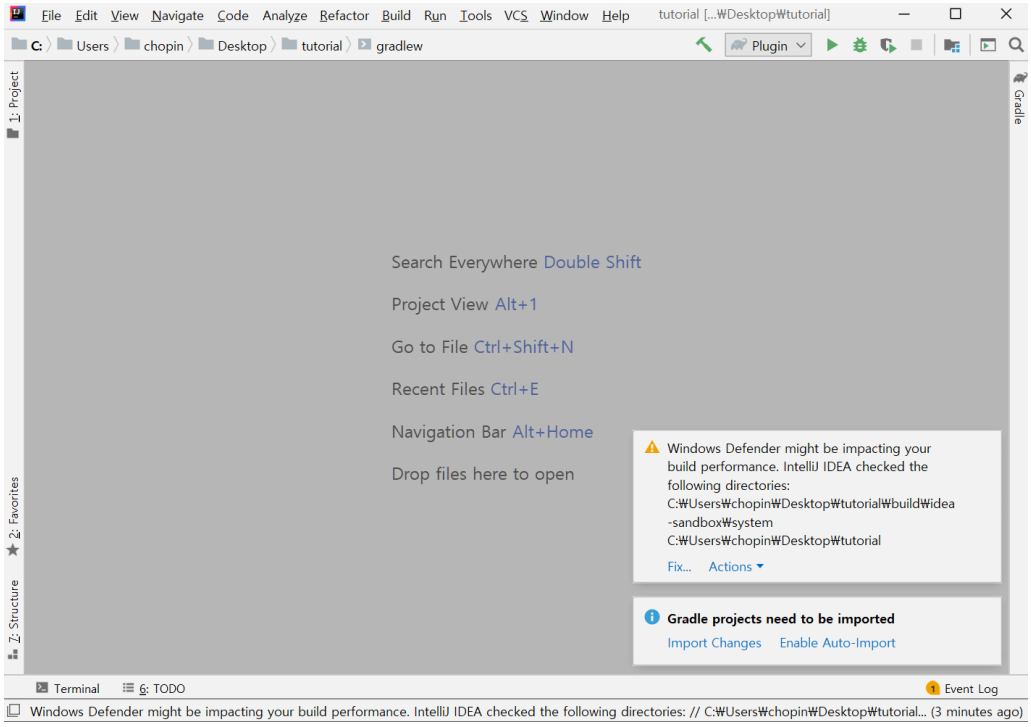
A Short Guide for IntelliJ Plugin

Jaeseo Lee

1. Go to this link: https://www.jetbrains.org/intellij/sdk/docs/basics.html
   This website contains comprehensive information about IntelliJ plugin making.

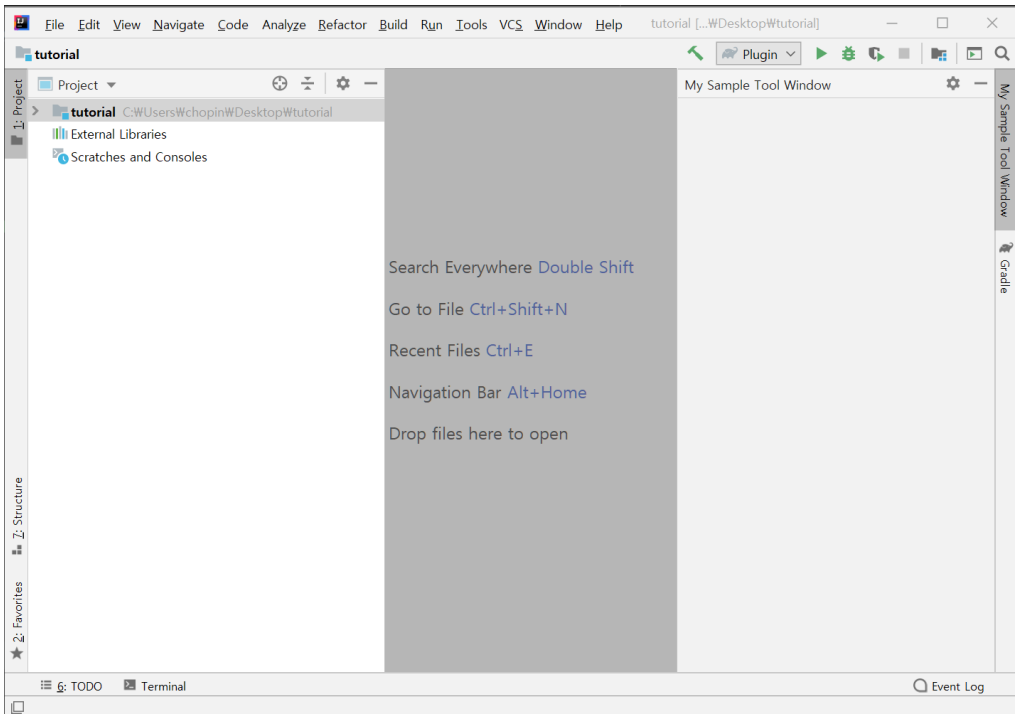
2. Create a new IntelliJ plugin project following this:
   https://www.jetbrains.org/intellij/sdk/docs/tutorials/build_system/prerequisites.html
   From this point onward, you can try running your plugin (instruction in the link). A new IntelliJ IDEA with your custom plugin will be launched. Because we did not write anything yet, it will just look like plain-old IntelliJ.



3. Now we want to make a tool window. Go to the link below.
   https://www.jetbrains.org/intellij/sdk/docs/user_interface_components/tool_windows.html
   It will be helpful to read all the content of this page. This page instructs you to do two things:

A. Edit plugin.xml (in resources folder)
B. Create a java class that implements ToolWindowFactory

Do both and now your plugin will have an empty tool window.



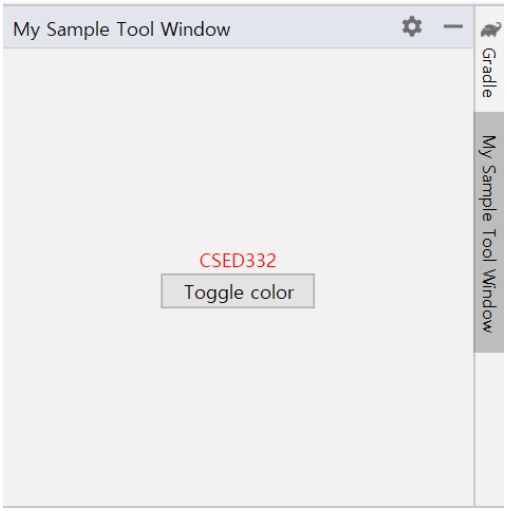
4. The above tool window is empty because we did not write anything yet. Now let's fill in the content. Checkout the sample file for ToolWindowFactory in the link below.
   https://github.com/JetBrains/intellij-sdk-docs/blob/master/code_samples/tool_window/src/myToolWindow/MyToolWindowFactory.java
   Copy and paste the createToolWindowContent function and import statements to your class file (and rename if needed). Create a java class MyToolWindow. Copy and paste the following code.

```
public class MyToolWindow {
    private JButton toggleButton;
    private JLabel label;
    private JPanel myToolWindowContent;

    public MyToolWindow(ToolWindow toolWindow) {
        myToolWindowContent = new JPanel(new GridBagLayout());
        label = new JLabel("CSED332");
        label.setForeground(Color.RED);
        toggleButton = new JButton("Toggle color");

        GridBagConstraints gbc = new GridBagConstraints();
        gbc.gridy = 0;
        myToolWindowContent.add(label, gbc);
```

```
        gbc.gridy = 1;
        myToolWindowContent.add(toggleButton, gbc);
    }

    public JPanel getContent() {
        return myToolWindowContent;
    }
}
```

myToolWindowContent represents the whole space of your tool window. The above code will create a label and a button. GridBagLayout is for arranging the objects in the plugin. Check the below website for more information.
https://docs.oracle.com/javase/tutorial/uiswing/layout/gridbag.html

Run and you will get this. The button does nothing for now but in the next step, we are going to change that.



5. The intention is whenever the button is clicked, it changes color of the label. Let's add another member variable.

```
private boolean isRed;
```

This variable will tell us if the label is red or not. Now somewhere in this class, we need a function that toggles color.

```
private void toggleColor() {
    if (isRed) {
        label.setForeground(Color.BLUE);
        isRed = false;
    } else {
        label.setForeground(Color.RED);
        isRed = true;
    }
}
```

This function will do the job. Now the remaining job is link this function to the button we created. Add the following code right after the initialization of toggleButton.

```
toggleButton.addActionListener(new ActionListener() {
    @Override
    public void actionPerformed(ActionEvent actionEvent) {
        toggleColor();
    }
});
```

This is the final outcome of this tutorial.