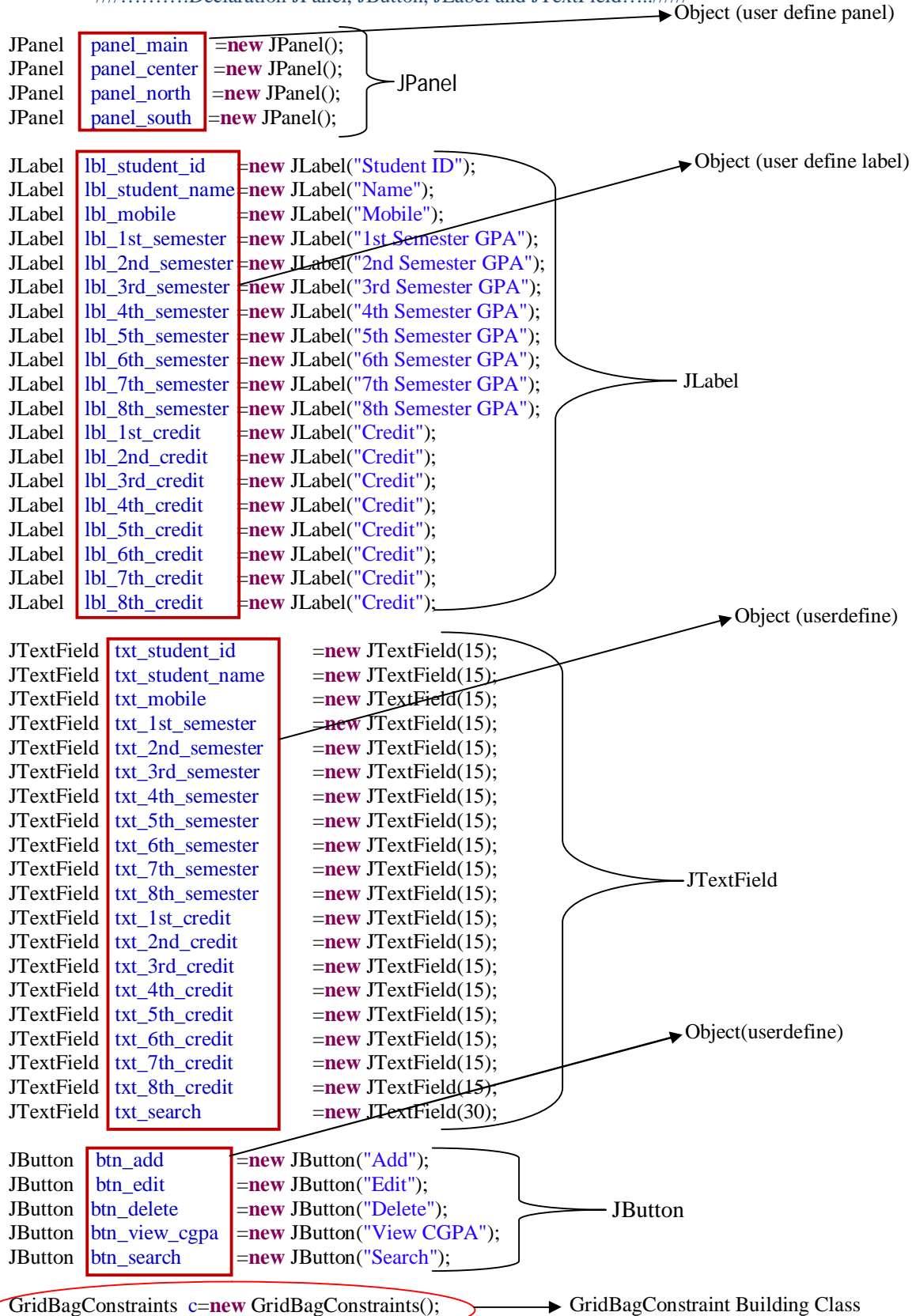


////.....Declaration JPanel, JButton, JLabel and JTextField.....////



////////..... JPanel Addition and Layout set.////

```
public void cmp()
{
    add(panel_main);
    panel_main.setLayout(new BorderLayout());
    panel_main.add(panel_center, BorderLayout.CENTER);
    panel_main.add(panel_north, BorderLayout.NORTH);
    panel_main.add(panel_south, BorderLayout.SOUTH);

    panel_center_work();
    panel_north_work();
    panel_south_work();
}
```

Annotations:

- Add main panel (points to `add(panel_main);`)
- Set BorderLayout (points to `panel_main.setLayout(new BorderLayout());`)
- Method declaration (points to `panel_center_work();`, `panel_north_work();`, and `panel_south_work();`)

////.....Add all component in panel_center_work.....////

```
private void panel_center_work()
{
    panel_center.setLayout(new GridBagLayout());
    c.gridx=0;
    c.gridy=0;
    c.fill=GridBagConstraints.BOTH;
    c.insets=new Insets(5,5,5,5);
    panel_center.add(lbl_student_id,c);
    c.gridx=1;
    c.gridy=0;
    panel_center.add(txt_student_id,c);
    c.gridx=2;
    c.gridy=0;
    panel_center.add(lbl_student_name,c);
    c.gridx=3;
    c.gridy=0;
    panel_center.add(txt_student_name,c);
    c.gridx=0;
    c.gridy=1;
    panel_center.add(lbl_1st_semester,c);
    c.gridx=1;
    c.gridy=1;
    panel_center.add(txt_1st_semester,c);

    c.gridx=2;
    c.gridy=1;
    panel_center.add(lbl_1st_credit,c);
    c.gridx=3;
    c.gridy=1;
    panel_center.add(txt_1st_credit,c);
    c.gridx=0;
    c.gridy=2;
    panel_center.add(lbl_2nd_semester,c);
    c.gridx=1;
    c.gridy=2;
    panel_center.add(txt_2nd_semester,c);
    c.gridx=2;
    c.gridy=2;
    panel_center.add(lbl_2nd_credit,c);
}
```

Annotations:

- Value of X and Y coordinate (points to `c.gridx=0;` and `c.gridy=0;`)

```
c.gridx=3;
c.gridy=2;
panel_center.add(txt_2nd_credit,c);
c.gridx=0;
c.gridy=3;
panel_center.add(lbl_3rd_semester,c);
c.gridx=1;
c.gridy=3;
panel_center.add(txt_3rd_semester,c);
c.gridx=2;
c.gridy=3;
panel_center.add(lbl_3rd_credit,c);
c.gridx=3;
c.gridy=3;
panel_center.add(txt_3rd_credit,c);
c.gridx=0;
c.gridy=4;
panel_center.add(lbl_4th_semester,c);
c.gridx=1;
c.gridy=4;
panel_center.add(txt_4th_semester,c);
c.gridx=2;
c.gridy=4;
panel_center.add(lbl_4th_credit,c);
c.gridx=3;
c.gridy=4;
panel_center.add(txt_4th_credit,c);
c.gridx=0;
c.gridy=5;
panel_center.add(lbl_5th_semester,c);
c.gridx=1;
c.gridy=5;
panel_center.add(txt_5th_semester,c);
c.gridx=2;
c.gridy=5;
panel_center.add(lbl_5th_credit,c);
c.gridx=3;
c.gridy=5;
panel_center.add(txt_5th_credit,c);
c.gridx=0;
c.gridy=6;
panel_center.add(lbl_6th_semester,c);
```

```
c.gridx=1;
c.gridy=6;
panel_center.add(txt_6th_semester,c);
c.gridx=2;
c.gridy=6;
panel_center.add(lbl_6th_credit,c);
c.gridx=3;
c.gridy=6;
panel_center.add(txt_6th_credit,c);
c.gridx=0;
c.gridy=7;
panel_center.add(lbl_7th_semester,c);
c.gridx=1;
c.gridy=7;
```

```

        panel_center.add(txt_7th_semester,c);
        c.gridx=2;
        c.gridy=7;
        panel_center.add(lbl_7th_credit,c);
        c.gridx=3;
        c.gridy=7;
        panel_center.add(txt_7th_credit,c);
        c.gridx=0;
        c.gridy=8;
        panel_center.add(lbl_8th_semester,c);
        c.gridx=1;
        c.gridy=8;
        panel_center.add(txt_8th_semester,c);
        c.gridx=2;
        c.gridy=8;
        panel_center.add(lbl_8th_credit,c);
        c.gridx=3;
        c.gridy=8;
        panel_center.add(txt_8th_credit,c);
    }

```

//////..... Add all component in panel_north_work.....////

```

private void panel_north_work()
{
    panel_north.setLayout(new FlowLayout());
    panel_north.add(txt_search);
    panel_north.add(btn_search);
}

```

//////.....Add all component in panel_south_work.....////

```

private void panel_south_work()
{
    panel_south.setLayout(new FlowLayout());
    panel_south.add(btn_add);
    panel_south.add(btn_edit);
    panel_south.add(btn_delete);
    panel_south.add(btn_view_cgpa);
}

```

} → Add JButton

//////.....btnAction method declaration and definition////

```

public Main_frame(){
    init();
    cmp();
    btnAction();
}

```

//////..... Add Action Listener for every button.....////

```

public void btnAction() {
    btn_add.addActionListener(new ActionListener() { → Constructor for add button
        public void actionPerformed(ActionEvent arg0) {

```

```

    }
});
btn_edit.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {

    }
});
btn_delete.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {

    }
});

btn_view_cgpa.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {

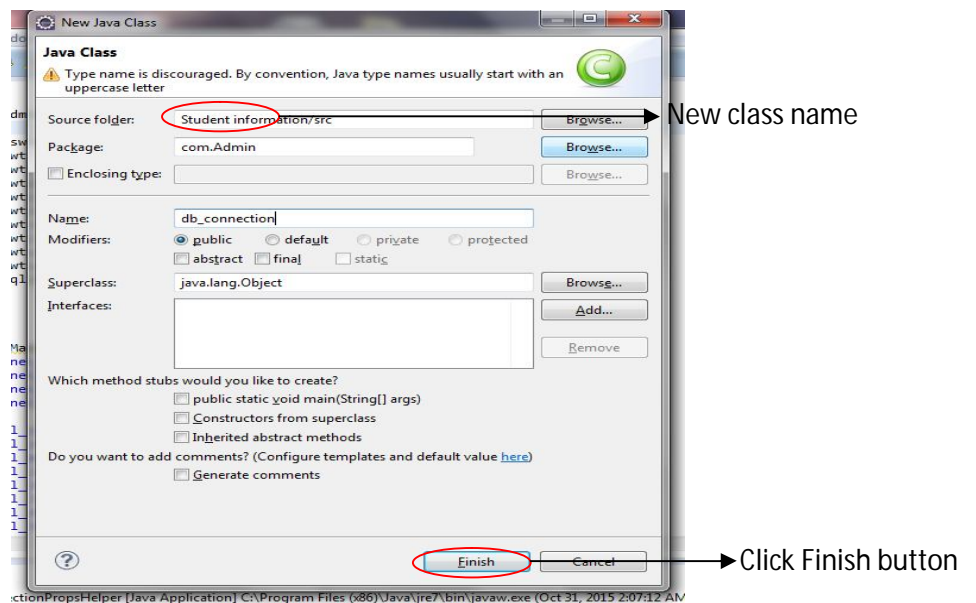
    }
});
btn_search.addActionListener(new ActionListener() {
    public void actionPerformed(ActionEvent arg0) {

    }
});
}

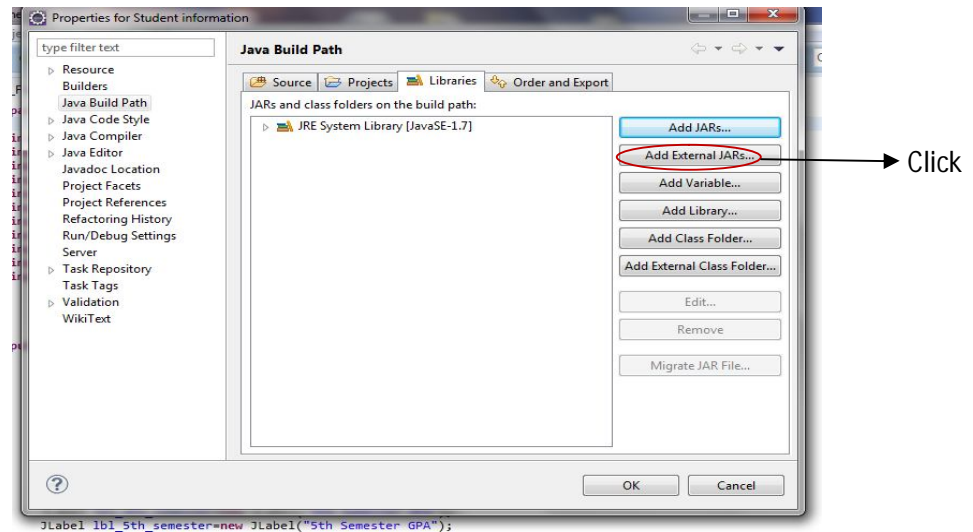
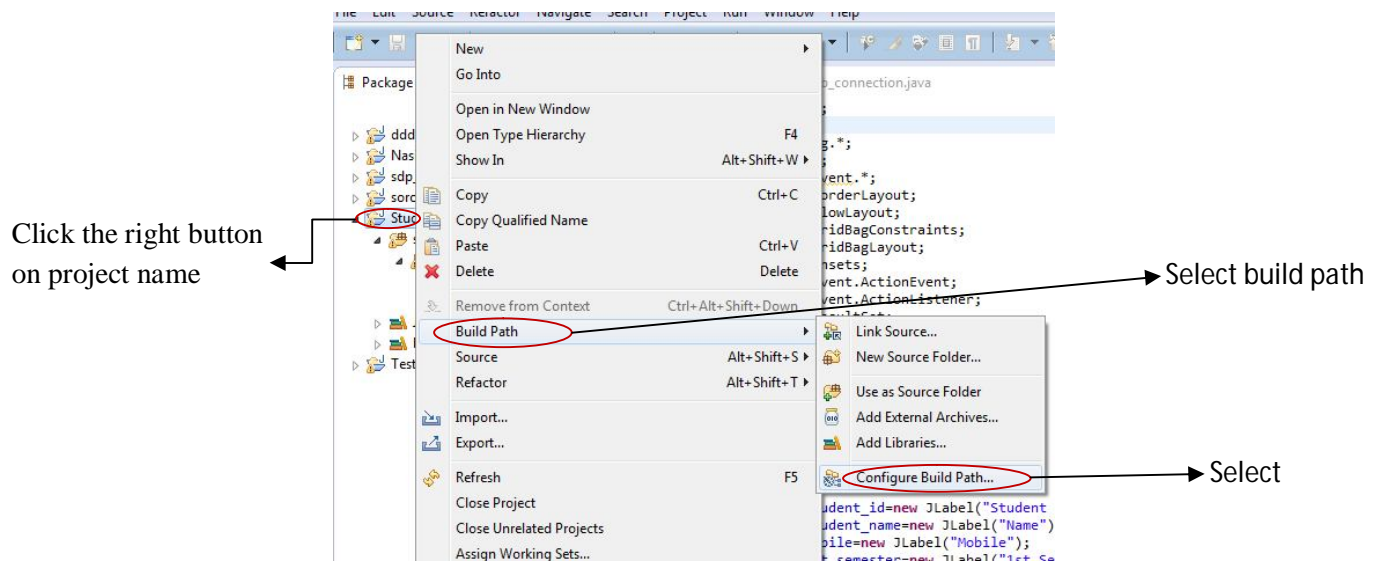
```

Action listener
method for every JButton

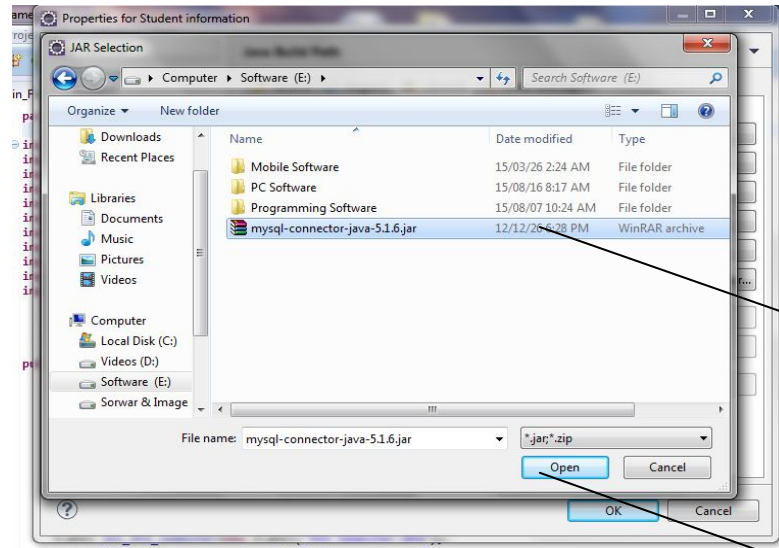
////////..... Create new class name as db_connection (for database connection).....////////



Download ([mysql-connector-java-5.1.6.jar](#)) file from internet then follow the steps.

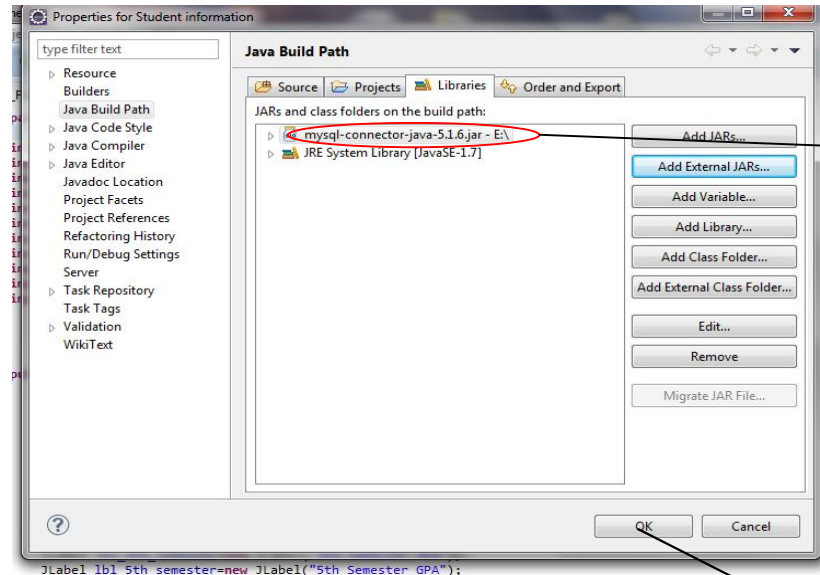


Select the path of mysql downloaded jar file



Select

Click



Mysql jar file

Click

```
JLabel lbl_5th_semester=new JLabel("5th Semester GPA");
```


Go to cmd.exe then write `Mysql-uroot -p12345`

Create database and table like as following figure.

```
C:\Windows\system32\cmd.exe - mysql -uroot -p12345
Microsoft Windows [Version 6.1.7600]
Copyright (c) 2009 Microsoft Corporation. All rights reserved.

C:\Users\Emdidar>mysql -uroot -p12345
Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 60
Server version: 6.0.9-alpha-community MySQL Community Server (GPL)

Type 'help;' or '\h' for help. Type '\c' to clear the buffer.

mysql> create database student_result;
Query OK, 1 row affected (0.00 sec)

mysql> use student_result;
Database changed

mysql> create table result(
    -> student_id int,
    -> student_name varchar(111),
    -> gpa_1st double,
    -> gpa_2nd double,
    -> gpa_3rd double,
    -> gpa_4th double,
    -> gpa_5th double,
    -> gpa_6th double,
    -> gpa_7th double,
    -> gpa_8th double,
    -> credit1 int,
    -> credit2 int,
    -> credit3 int,
    -> credit4 int,
    -> credit5 int,
    -> credit6 int,
    -> credit7 int,
    -> credit8 int,
    -> cgpa double,
    -> primary key(student_id);
Query OK, 0 rows affected (0.01 sec)
```

//////.....Write those code on db_connection class.....//////

```
package com.Admin;
```

```
import java.sql.DriverManager; —————> import class
```

```
import java.util.*;
```

```
import java.io.*;
```

```
import java.sql.*;
```

```
public class db_connection {
```