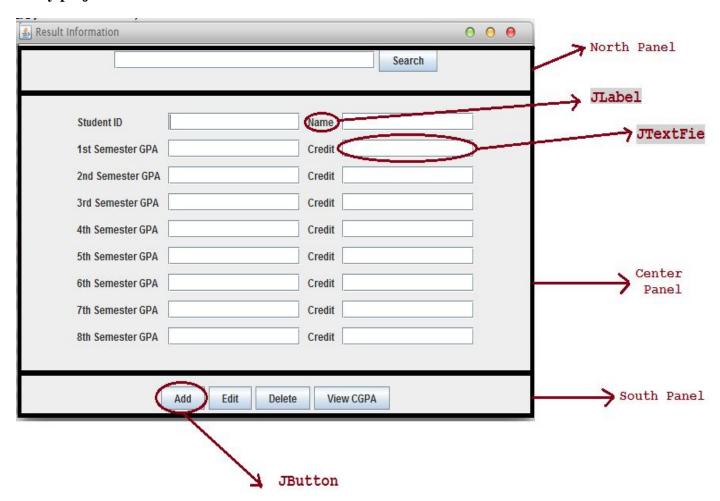
CGPA Calculation

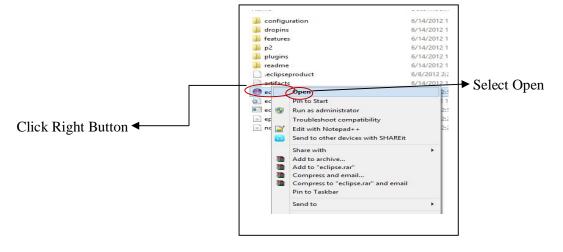
I want to development a simple java software for student's CGPA calculation. A simple system overview shown in following figure. Some text area, JLabel, JBUtton are mention in this figure.

I described my project in multiple steps as follows:

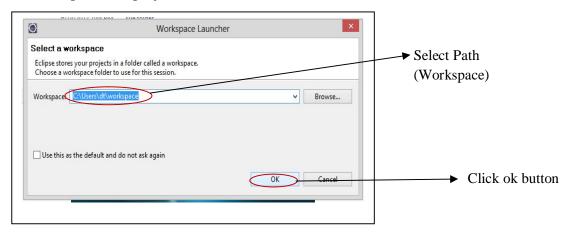
> My project outlook shown as bellow.



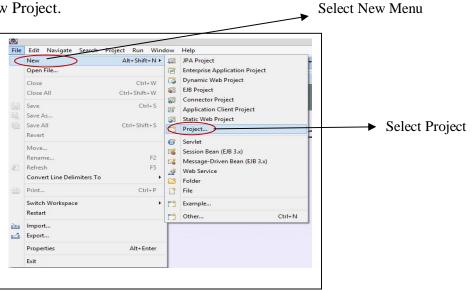
Step 1: Open Eclips.exe file from eclipse extraction file.



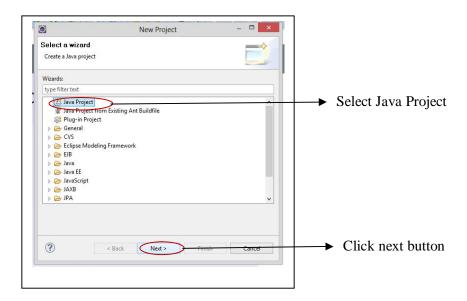
Step 2: Select workspasce.for project folder creation.



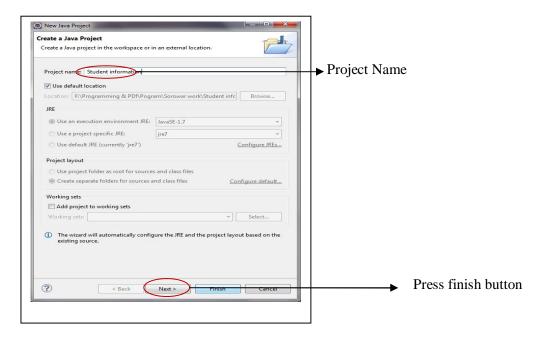
Step 3 : Create a new Project.



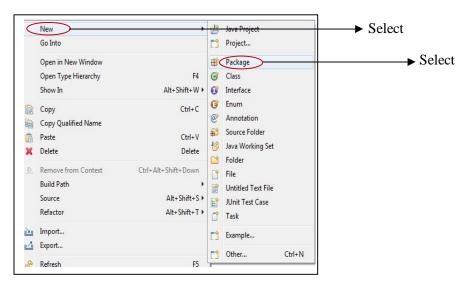
Step 4: Select a Java Project.



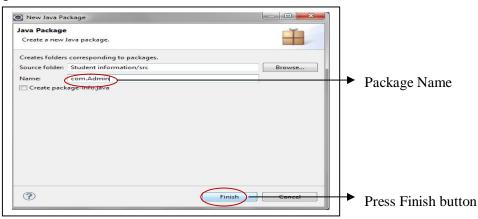
Step 5: Give Project name.



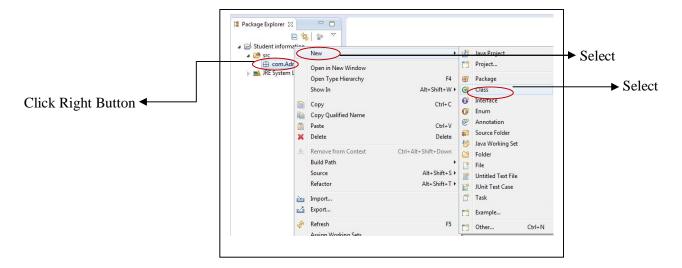
Step 6: Now create new Package.



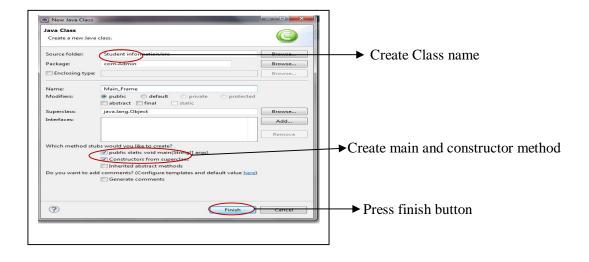
Step-7: Create Package Name.



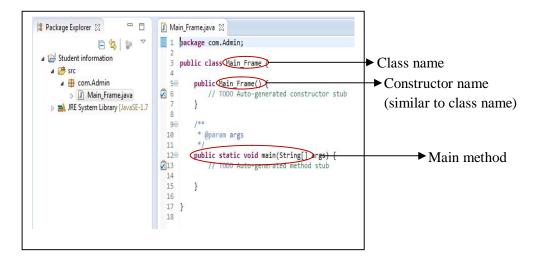
Step 8: Now Create a main Class.



Step 9: Give class Name.



Step 10: Show the Class name, Constructor name and Main method.



Code Description:

```
...../// Create a new Frame///.....
                                                           package name
package com.admin;
                                                     → Using extends keyword JFrame
public class Main frame extends JFrame
                                                        class is inherited
       public Main_frame()
               init();

    Constructor

       }
                                          Methods
        public void init()
               setSize(666,444);-
                                                 → Frame Size
                                    → To Visible
               setVisible(true); -
              setLocationRelativeTo(null); → Frame Location
              setTitle("Result Information"); → View Title
       }
  public static void main(String[] args)
                                             _____ Main Class
              Main_frame(mf) = new Main_frame();
                                                                      → Class name
}
              ...../// cmp() method declaration and definition..../// //
                             /////component & panel add///////
       public Main_frame()
              init();
                                              Method for component
              cmp();
                                               & Panel Add
       }
              //////..........Import all important API (Application Programming Interface)......///////
       import javax.swing.*;
       import java.awt.*;
                                  -Swing component
       import java.awt.event.*;
```

```
////......Declaration JPanel, JButton, JLabel and JTextField....////
                                                                         Object (user define panel)
         panel_main
JPanel
                       =new JPanel();
JPanel
         panel_center
                      =new JPanel();
                                           -JPanel
JPanel
                      =new JPanel();
         panel_north
JPanel
                      =new JPanel();
         panel_south
                                                                           Object (user define label)
JLabel
        lbl_student_id
                          =new JLabel("Student ID");
JLabel
        lbl student name = new JLabel("Name");
JLabel
        lbl mobile
                          =new JLabel("Mobile");
                         =new JLabel("1st_Semester GPA");
JLabel
        lbl 1st semester
        lbl_2nd_semester = new_ILabel("2nd Semester GPA");
JLabel
JLabel
        lbl_3rd_semester = new JLabel("3rd Semester GPA");
JLabel
        lbl 4th semester
                         =new JLabel("4th Semester GPA");
JLabel
        lbl 5th semester
                         =new JLabel("5th Semester GPA");
JLabel
        lbl_6th_semester
                         =new JLabel("6th Semester GPA");
                          =new JLabel("7th Semester GPA");
                                                                           JLabel
JLabel
        lbl_7th_semester
JLabel
        lbl_8th_semester
                         =new JLabel("8th Semester GPA");
JLabel
        lbl_1st_credit
                          =new JLabel("Credit");
JLabel
        lbl 2nd credit
                          =new JLabel("Credit");
JLabel
        lbl 3rd credit
                         =new JLabel("Credit");
JLabel
                          =new JLabel("Credit");
        lbl_4th_credit
JLabel
                          =new JLabel("Credit");
        lbl 5th credit
JLabel
                          =new JLabel("Credit");
        lbl 6th credit
JLabel
        lbl_7th_credit
                          =new JLabel("Credit");
JLabel
        lbl 8th credit
                          =new JLabel("Credit");
                                                                               Object (userdefine)
JTextField txt_student_id
                                  =new JTextField(15);
JTextField txt student name
                                  =new JTextField(15);
                                  =new JTextField(15);
JTextField txt_mobile
JTextField txt_1st_semester
                                  =new JTextField(15);
JTextField txt 2nd semester
                                  =new JTextField(15):
JTextField txt 3rd semester
                                  =new JTextField(15);
JTextField txt_4th_semester
                                  =new JTextField(15);
JTextField txt_5th_semester
                                  =new JTextField(15);
JTextField txt_6th_semester
                                  =new JTextField(15);
JTextField txt_7th_semester
                                  =new JTextField(15);
                                                                           JTextField
JTextField txt_8th_semester
                                  =new JTextField(15);
JTextField txt_1st_credit
                                  =new JTextField(15);
JTextField txt_2nd_credit
                                  =new JTextField(15);
JTextField txt_3rd_credit
                                  =new JTextField(15);
JTextField txt 4th credit
                                  =new JTextField(15);
JTextField txt 5th credit
                                  =new JTextField(15);
                                                                          Object(userdefine)
JTextField txt 6th credit
                                  =new JTextField(15):
JTextField txt 7th credit
                                  =new JTextField(15);
JTextField
           txt_8th_credit
                                  =new JTextField(15);
JTextField txt_search
                                  =new ITextField(30);
JButton
         btn_add
                         =new JButton("Add");
JButton
                         =new JButton("Edit");
         btn_edit
                         =new JButton("Delete");
JButton
         btn_delete
                                                                   JButton
JButton
                         =new JButton("View CGPA");
         btn_view_cgpa
JButton
         btn search
                         =new JButton("Search");
GridBagConstraints c=new GridBagConstraints();
                                                            ▶ GridBagConstraint Building Class
```