



FrontEnd

Implementations :

- ActionListener
- MouseListener — **used only for XY Positions !**

Panel layouts used :

1. BorderLayout
2. flowLayout
3. GridLayout
4. null



I've used one Frame for the **gui** and one frame used for **register / login** Window

Methods :

- there are methods for initializing the panels, it also can check if it intilized and just display the panel on the seconds call.
 - siReader(); — **Selects All The SignInfo From DATABASE**
 - DataInit(); — **Executes The Data Passed By DEV**
 - pSrchinit();
 - pBottomBarinit();
 - pToolBarInit();
 - pDetailsInit();
 - pCourseInit();
 - pDeplnit();

- pStudents Init();
- pManagerAdder();
- pLecturerAdder();
- pUnivInit();

▼ **Example for initCode :**

```
private void pDepInit() {
    if ((pCourses.isVisible() || puniversities.isVisible() || pStudents.isVisible())) {
        pCourses.setVisible(false);
        puniversities.setVisible(false);
        pStudents.setVisible(false);
    }

    if (flag1 == 0) {
        Ldepartmentuniv = new JLabel("Univ:");
        CHdepartmentuniv = new Choice();
        for (int i = 0; i < ALuniv.size(); i++)
            CHdepartmentuniv.add(ALuniv.get(i).getName());
        LdepartmentName = new JLabel("Department Name : ");
        TFdepartmentName = new JTextField(10);
        LdepartmentId = new JLabel("Department Id : ");
        TFdepartmentId = new JTextField(10);
        BdepInsert = new JButton("Insert");
        BdepInsertDB = new JButton("Insert Into DB");
        BdepExport = new JButton("Export");
        BdepClear = new JButton("Clear");
        BfindDep = new JButton("Find");
        LsearchResdep = new JLabel();
        pDepartments.add(Ldepartmentuniv);
        pDepartments.add(CHdepartmentuniv);
        pDepartments.add(LdepartmentId);
        pDepartments.add(TFdepartmentId);
        pDepartments.add(LdepartmentName);
        pDepartments.add(TFdepartmentName);
        pDepartments.add(BdepInsert);
        pDepartments.add(BdepInsertDB);
        pDepartments.add(BdepExport);
        pDepartments.add(BdepClear);
        pDepartments.add(BfindDep);
        pDepartments.add(LsearchResdep);
        BdepInsert.addActionListener(this);
        BdepInsertDB.addActionListener(this);
        BdepExport.addActionListener(this);
        BdepClear.addActionListener(this);
        BfindDep.addActionListener(this);
        flag1 = 1;
    }

    else {
        pDepartments.setVisible(true);
    }
}
```

