

# Assignment 1

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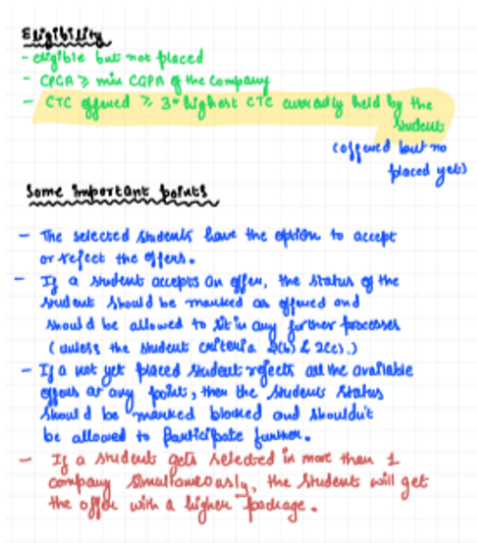
Course: Advanced Programming

Course Instructor: Raghava Mutharaju

// Thankfully not Piyus Kedia

Date: 23-09-2022

## FutureBuilder



Eligibilities

**“FutureBuilder”** is a portal designed for the placement season at IIITD.

### Functionalities:

- Allows PlacementCell to keep track of students and companies that register for the institute drive.
- Allows companies to register themselves with the placement cell.
- Allows students to register themselves with the placement cell and get offers from companies.

## Student Functionalities

```

/*
StudentFunctionality
{
    EnterStudent();
        PlacementDrive( Name,
RollNumber, CGPA, Branch );
        RegisterForCompany();
        AvailableCompanies();
        GetCurrentStatus();
        UpdateCGPA();
        AcceptOffers();
        RejectOffers();
        Back();
    AddStudent();
    Back();
}
*/

```



1. Register for Placement Drive: Students can register for the placement drive.
2. Register for company: Students can register for a company.
3. Get all available companies: Print all the companies and its details where the student can apply for.
4. Get current status: Print the status of the student, whether blocked, offered, un-offered.
5. Update CGPA: The CGPA should be updated by the placement cell only.
6. Accept/ Reject Offers: Students should have the choice to accept/ reject the latest offer available to them.

#### Attributes:

- name
- rollnumber
- cgpa
- branch
- placedCompany
- ArrayList registeredcompanies

## Institute-Placement Cell Functionalities

Number of Lines: ~500 lines

Classes: Student

```

/*
PlacementCellFunctionality
{
    OpenStudentRegistration();
    OpenCompanyRegistration();
    NumberOfStudentsRegistrations();
    NumberOfCompanyRegistrations();
    NumberofOffered/Unoffered/;
    BlockedStudents();

    StudentDetails();
    CompanyDetails();
    AveragePackage();
    CompanyProcessResults();
}
*/

```

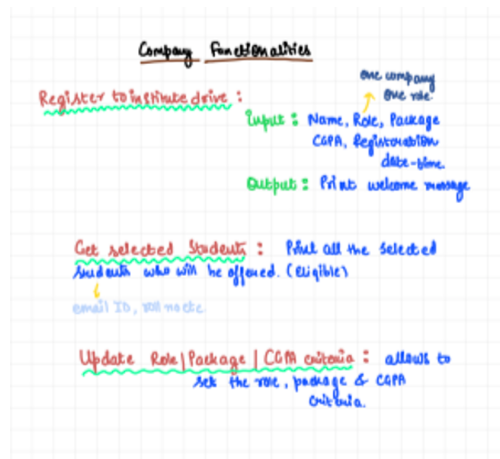


1. Open Student registrations: Opens the student-registration for the placement drive. It should have a start and end date-time.
2. Open Company registrations: Opens the company-registration for the placement drive. It should have a start and end date-time.
3. Get Number of Student Registrations: Print the number of students registered for the placement drive.
4. Get Number of Company Registrations: Print the number of companies registered for the placement drive.
5. Get Number of Placed/UnPlaced/Blocked Students: Print number of offered students with their details.

**Note:** an unplaced student who rejects all available offers at any instant is blocked.

## Company Functionalities

```
/*
CompanyFunctionalities
{
    AddCompany();
    ChooseCompany();
    AvailableCompanies();
    Back();
}
*/
```



6. Get Student Details: Prints details of the participation in the placement drive. Details pertaining to companies applied for and didn't, while also printing whether an offer was provided by the company or not.
7. Get Company Details: Prints the details of the company. Print the name and roll number if the company has offered any student.
8. Get average Package: Print the average package offered to the students of the institute.
9. Get Company Process Results: The company should send a list of all the students they have selected to the cell.

### Attributes:

- ArrayList students
- ArrayList companies

Number of lines: ~250 lines

Classes: PlacementCell

1. Register To Institute Drive: Register for an institute's placement drive.

| One company → One role

2. Get Selected Students: Get all the selected students of the campus who will be offered.
3. Update Role/Package/CGPA: Set updated values Role/Package/CGPA.

Attributes:

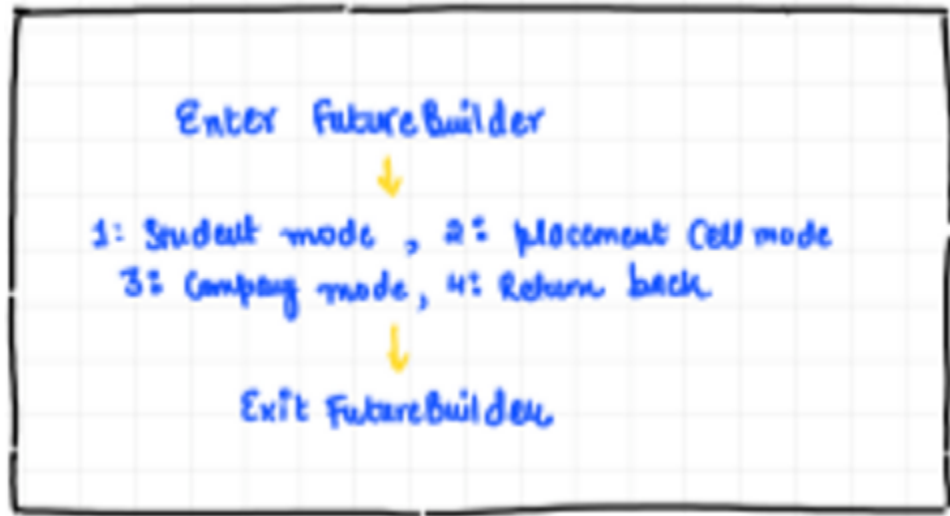
- Name
- Role
- CTC
- CGPA

Number of Lines: ~300 Lines

Classes: Company

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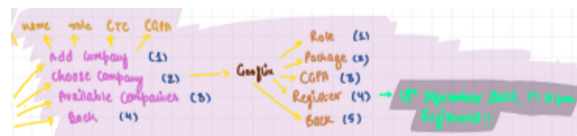
## Inputs



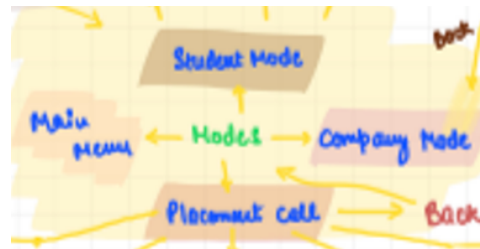
## Main Menu



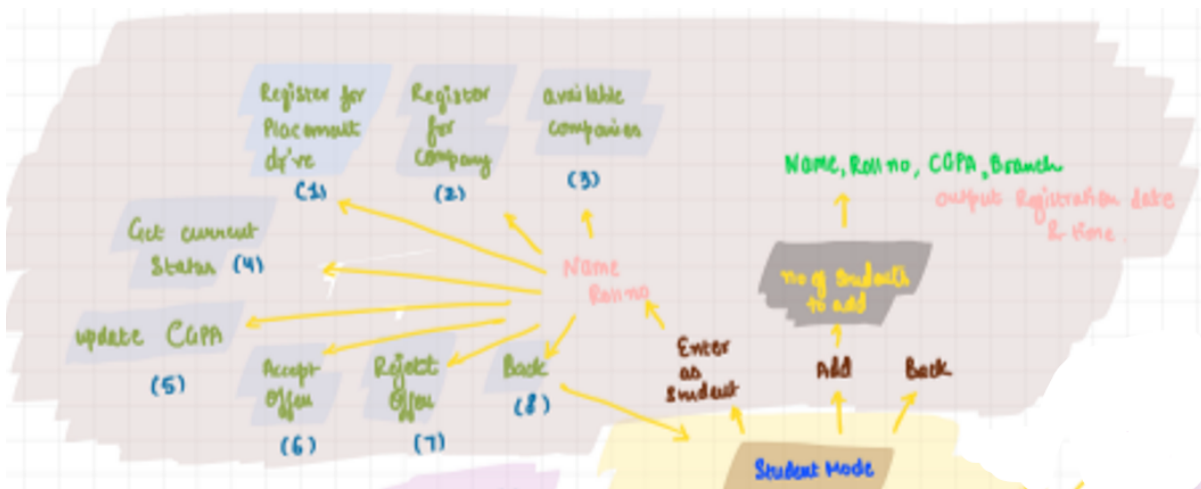
## Company Mode



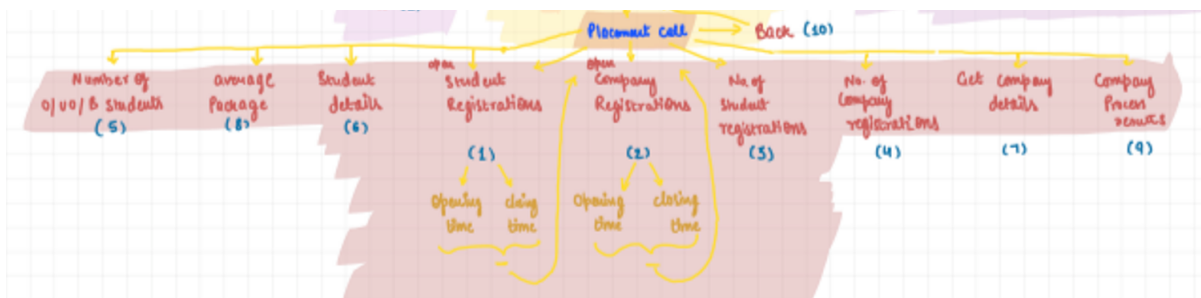
## Modes



## Student Mode



## Placement Cell



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