

# **Software Document Design**

**for**

# **PLACEMENT MANAGEMENT SYSTEM**

**Version 1.0 approved**

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**Created on: 12/03/2017**

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# **1. Introduction**

## **1.1 Purpose**

This Software Design Document provides a description of various functionalities and methodologies that our project follows. It employs and explains the constraints of the Placement management System, developed for various colleges' placement cell.

The project focuses on designing a Placement Management System for graduating students to a pool companies from various domains.

## **1.2 Scope of the development project**

The Placement Management System is for the students and companies which maintains the database for the students where all the students' records are entered including their academic details and their personal details. This software is intended for colleges who want an efficient system for the record of their placement statistics and deliver the best services and placement opportunities to their students. It will also manage the data of the Company which would comprise of the profile of the Company, eligibility criteria and the facilities or the package it provides etc. The System would provide the facility of viewing both the personal and academic information of the student and company; it would also search for eligible students and Company and deal with the insertion and deletion of records. It will search for eligible students based on the eligibility criteria and the eligible students will receive an email including the details of the company.

## **1.3 Overview of document**

This document contains various diagrams as specified by the Unified Modelling Language in order to explain how the Placement Management system works, what it contains and how different modules interact with each other. The UML diagrams this document contains are-

1. Class Diagram
2. Activity Diagram
3. Use case Diagram
4. Data flow Diagram
5. Sequence Diagram
6. Package Diagram

## 2. System architecture description

### 2.1 Overview of modules

Placement Management System contains three modules-

- Administrator (Coordinator) Module
- Company Module
- Student Module

In administrator module, the administrator would have control over adding new student and companies into colleges' database. The admin module is required in order refrain false candidates and companies registering to the system.

In company module, a responsible person from the company would be given access to modify company's profile and adding job postings.

In student module, the student would be able to view the companies whose basic requirement are satisfied by the student's profile. Then user can view various job profiles as per his choice.

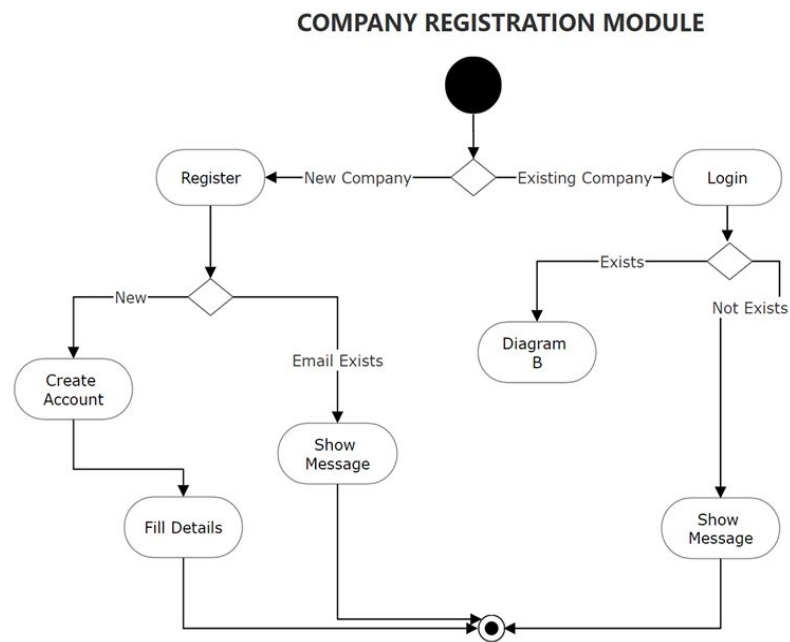
### 2.2 Structure and relationships

The three modules structure and relationship can be shown as follows-

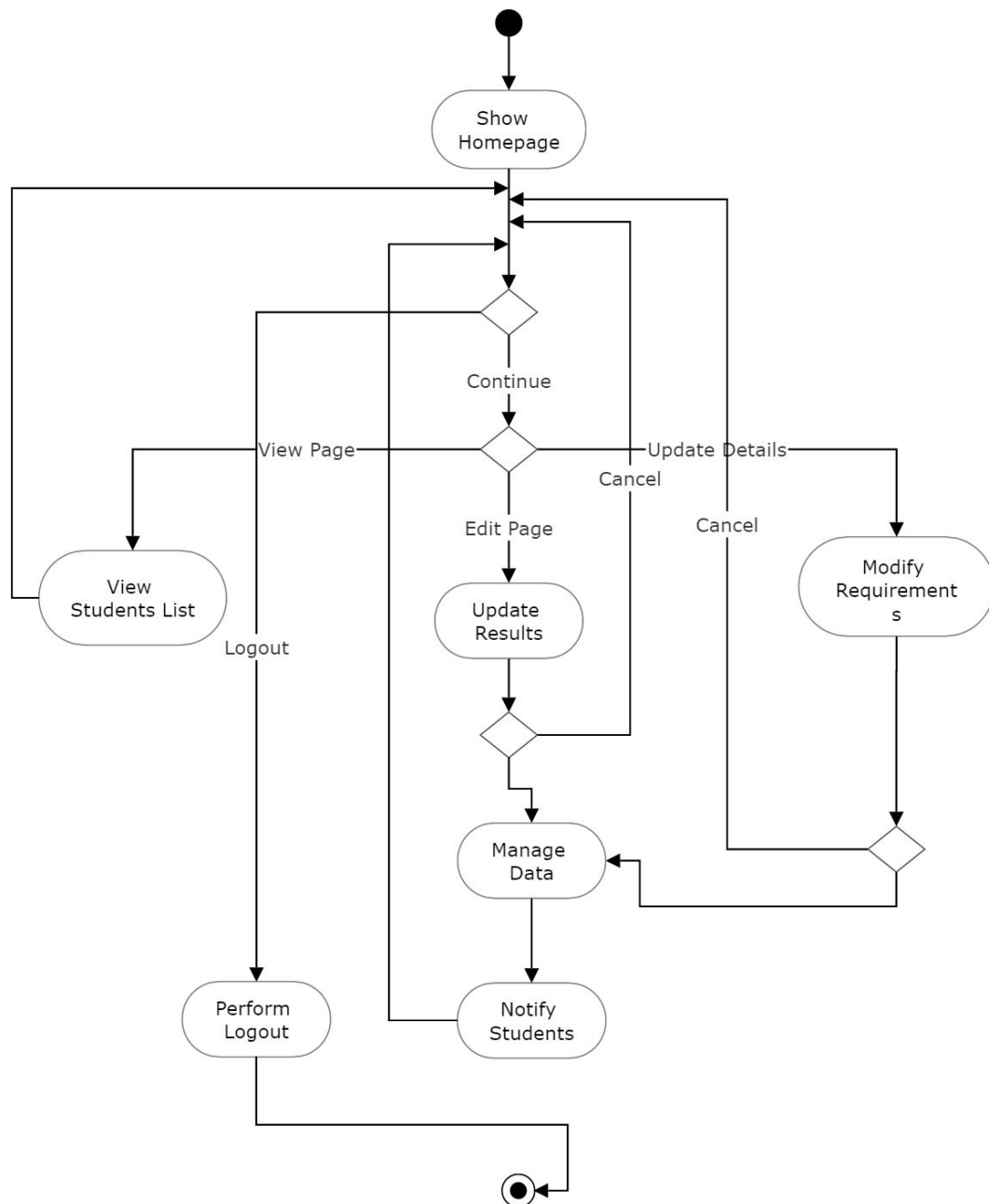


Fig1: Class Diagram

## 2.3 Activity Diagram



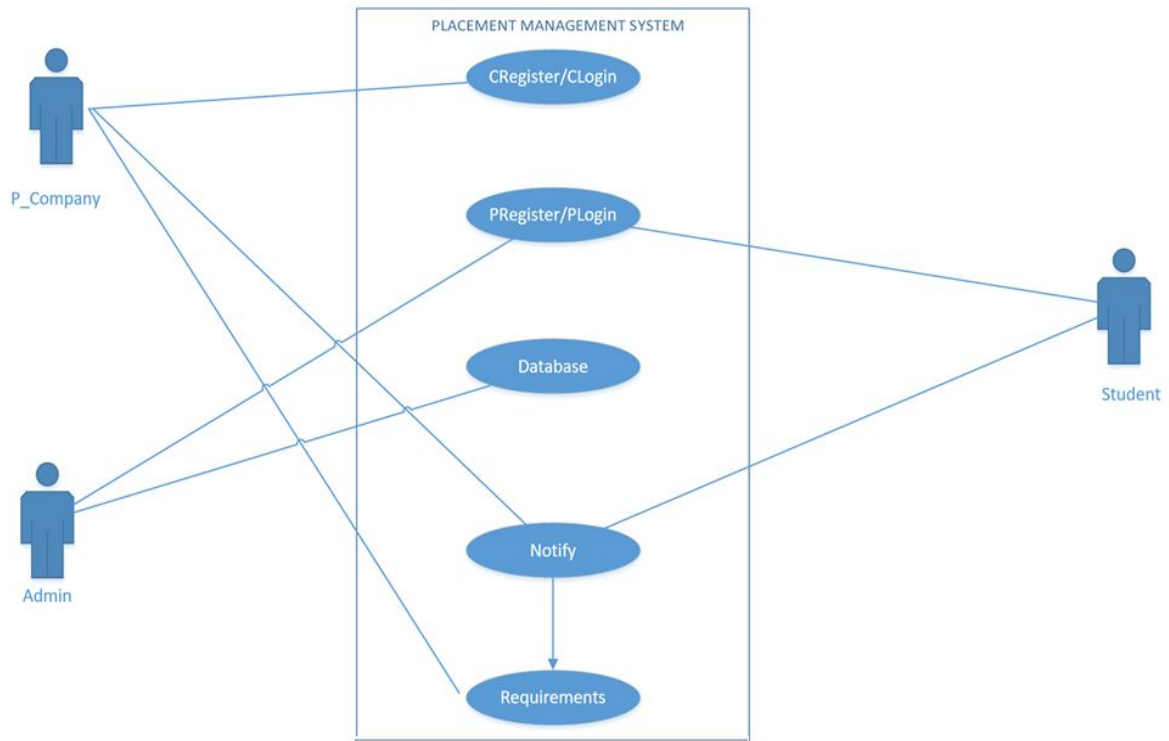
**Fig2: Activity Diagram (Part A)**

**B.PLACEMENT MANAGEMENT SYSTEM****Fig3: Activity Diagram (Part B)**

### 3. Detailed description of components

#### 3.1 Use case Scenario

Below is drawn the use case diagram for how the three modules will perform operations in the placement management system-

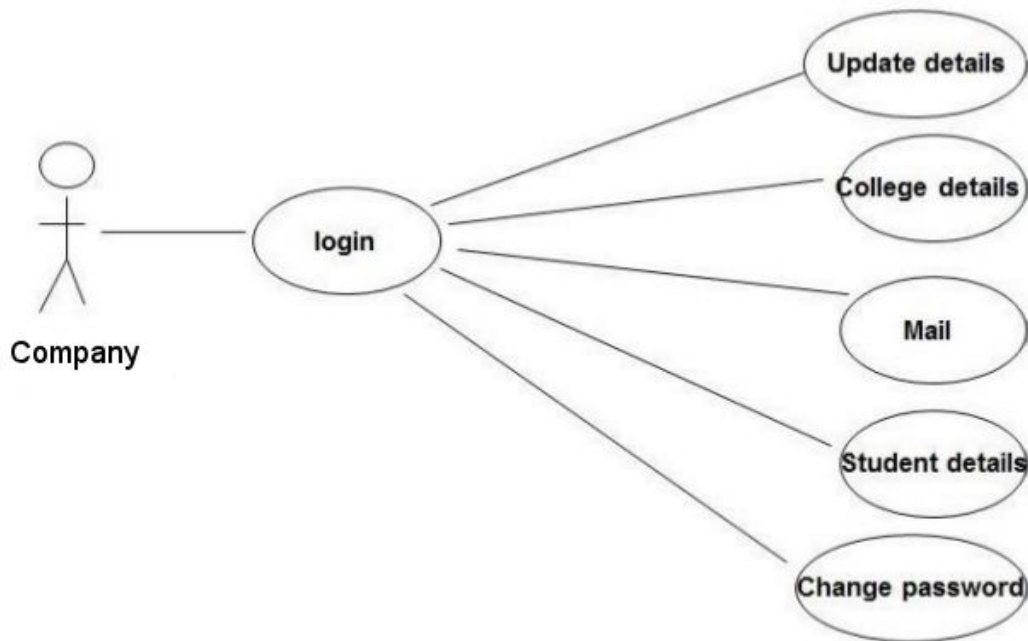


**Fig4: Use Case Diagram**

Below are described module specific use cases for every of the three modules:-



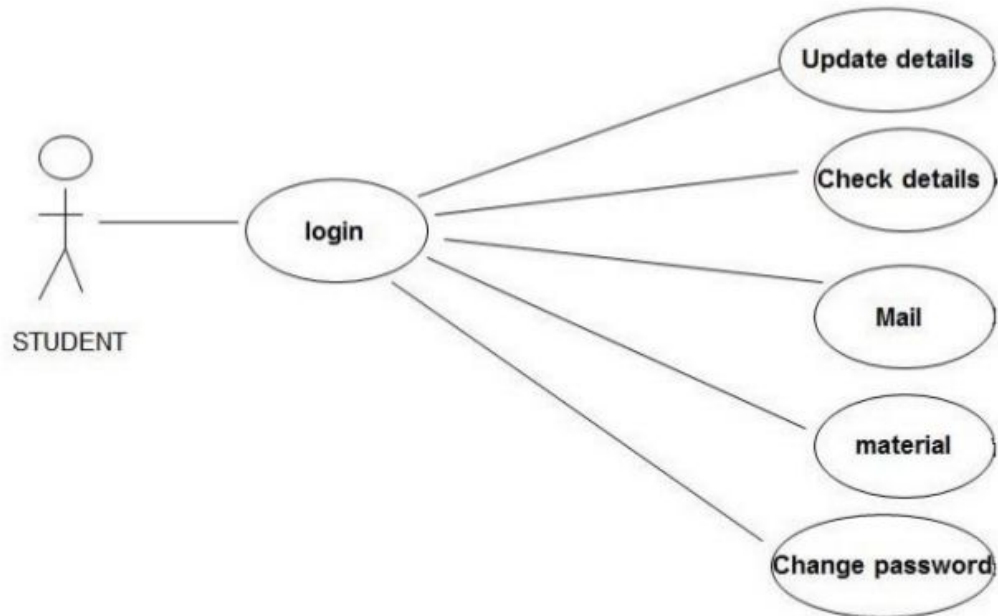
### 3.1.1 Use Case Diagram for Company :-



**Fig5: Use case for Company**

<b>Purpose</b>	Company Member Registration or Login Details.
<b>User</b>	Company Member
<b>Input Data</b>	Information about the member and company details.
<b>Output Data</b>	Updated database and information
<b>Invariants</b>	NA
<b>Pre-conditions</b>	In case of login attempt, the member should have already registered.
<b>Post-conditions</b>	If successful login, interface to edit personal and company information will be provided.
<b>Basic Flow</b>	The company profile and job postings will be updated. Eligible students will receive a mail. Applications and resume would be received.

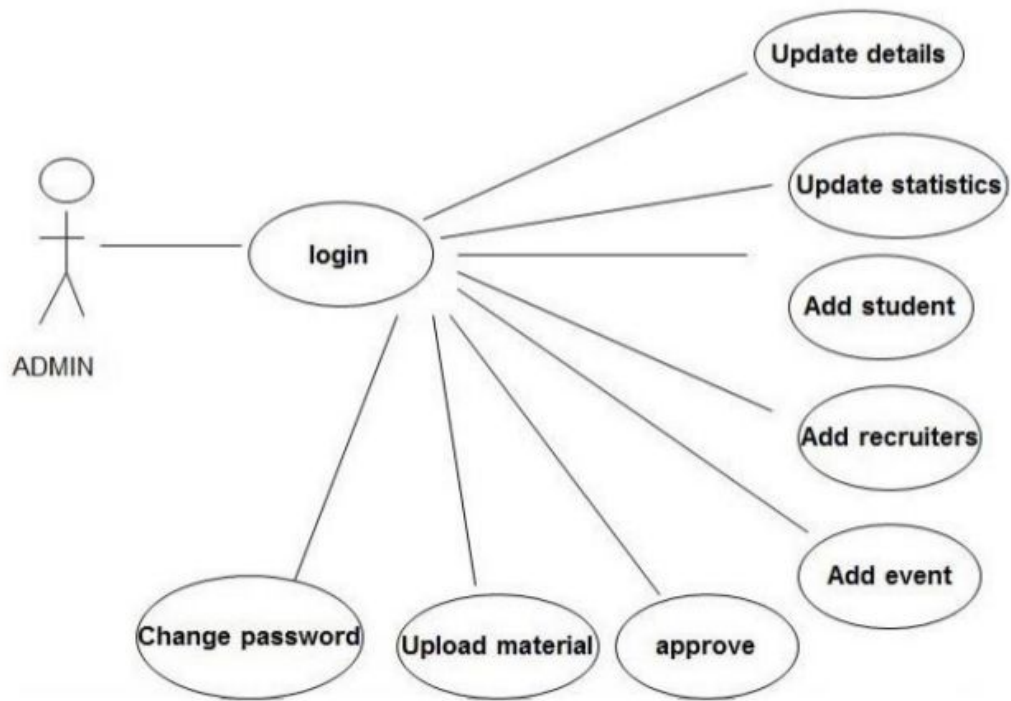
### 3.1.2 Use Case diagram for Student



**Fig6: Use case for Student**

<b>Purpose</b>	Student Registration or Login Details.
<b>User</b>	Students
<b>Input Data</b>	Information about the student and uploading of resume.
<b>Output Data</b>	Updated database and information and getting notifications for job openings.
<b>Invariants</b>	NA
<b>Pre-conditions</b>	In case of login attempt, the student should have already registered.
<b>Post-conditions</b>	If successful login, interface to edit personal and applying for job profiles will be provided.
<b>Basic Flow</b>	The student profile and resume will be updated. Eligible students will receive a mail. Applications and resume would be sent.

### 3.1.3 Use Case Diagram for Administrator :-



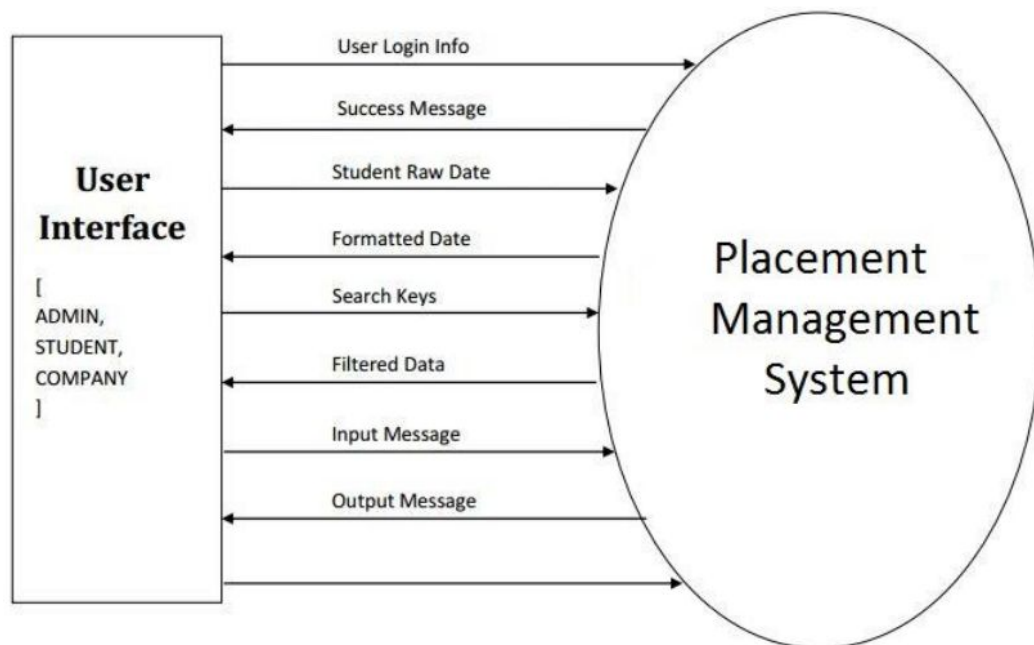
**Fig7: Use case for Administrator**

<b>Purpose</b>	Provide access to student and company member.
<b>User</b>	Coordinator of the college.
<b>Input Data</b>	Information about the database, student and company member.
<b>Output Data</b>	Updated database and information
<b>Invariants</b>	NA
<b>Pre-conditions</b>	Account should exist in database.
<b>Post-conditions</b>	If successful login, interface to edit database information, student and company member will be provided.
<b>Basic Flow</b>	Add company member and authenticate. Add students, other administrator account.

## 3.2 Data Flow diagram

### 3.2.1 Context Level DFD

Below diagram defines the placement management system as black box and its interaction with different actors-



**Fig8: Level 0 DFD**

### 3.2.2 Level 1 DFD

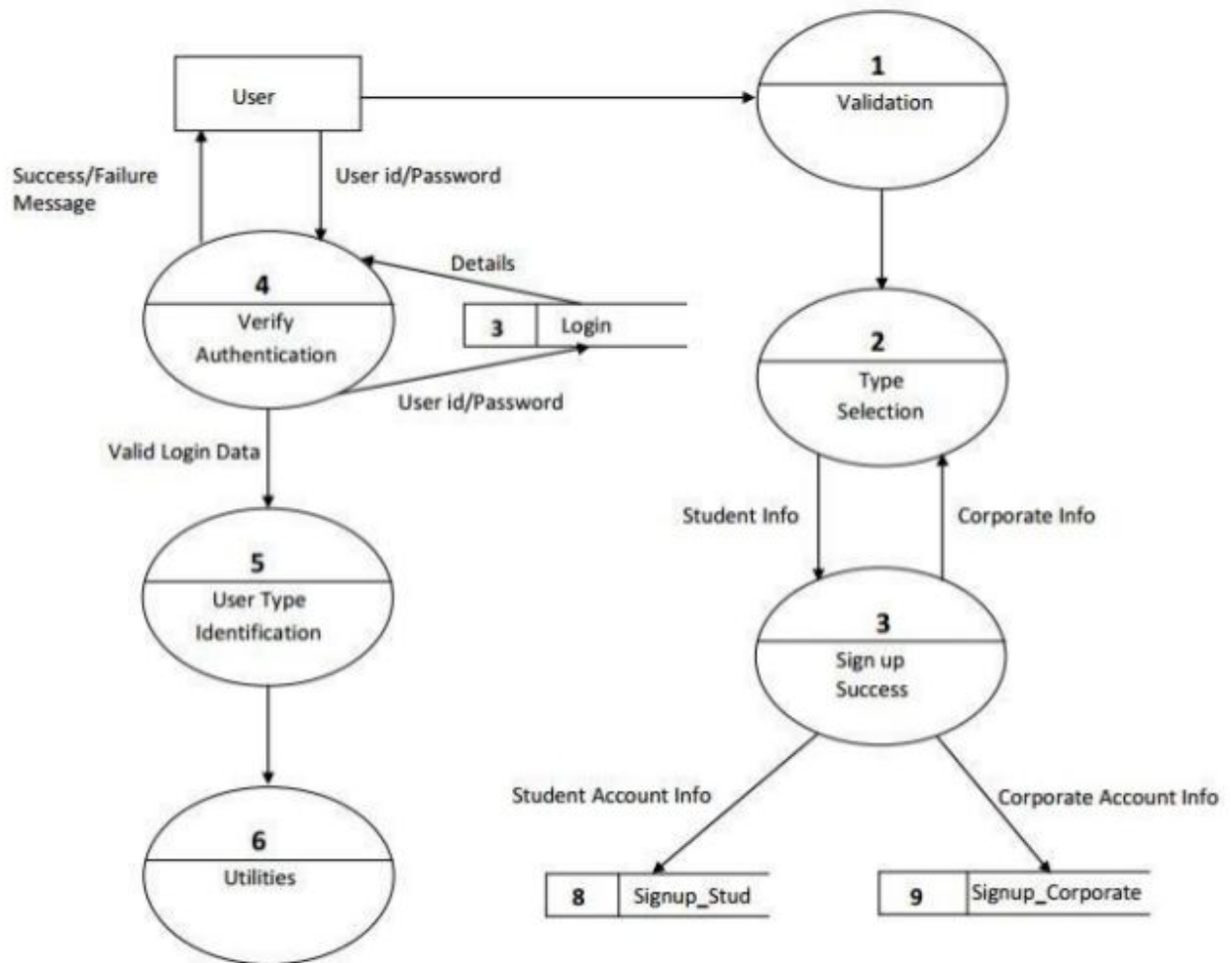


Fig9: Level 1 DFD

## 3.2.3 Level 2 DFD for Student

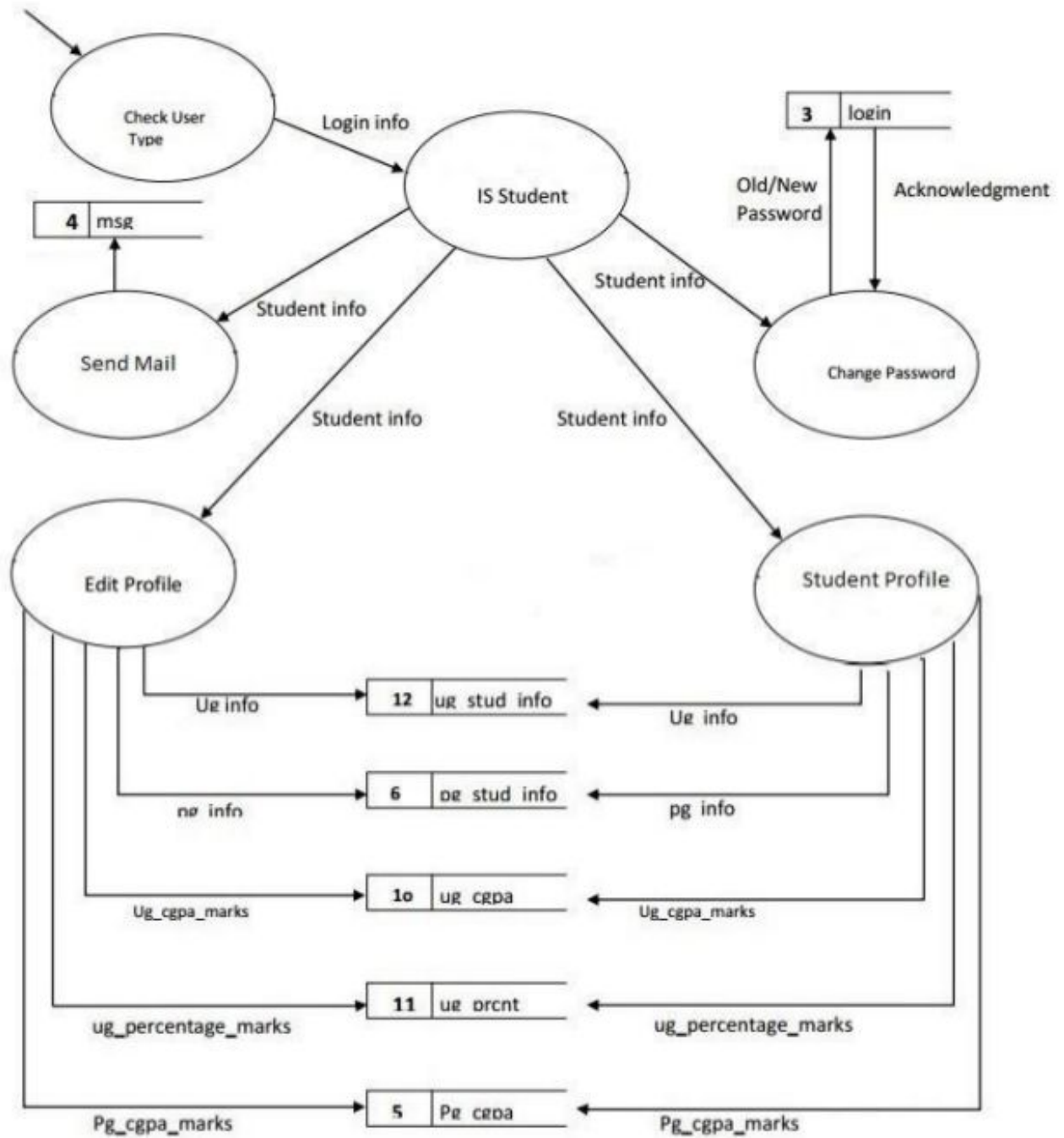


Fig10: Level 2 DFD for Students

## 3.2.4 Level 2 DFD For Company

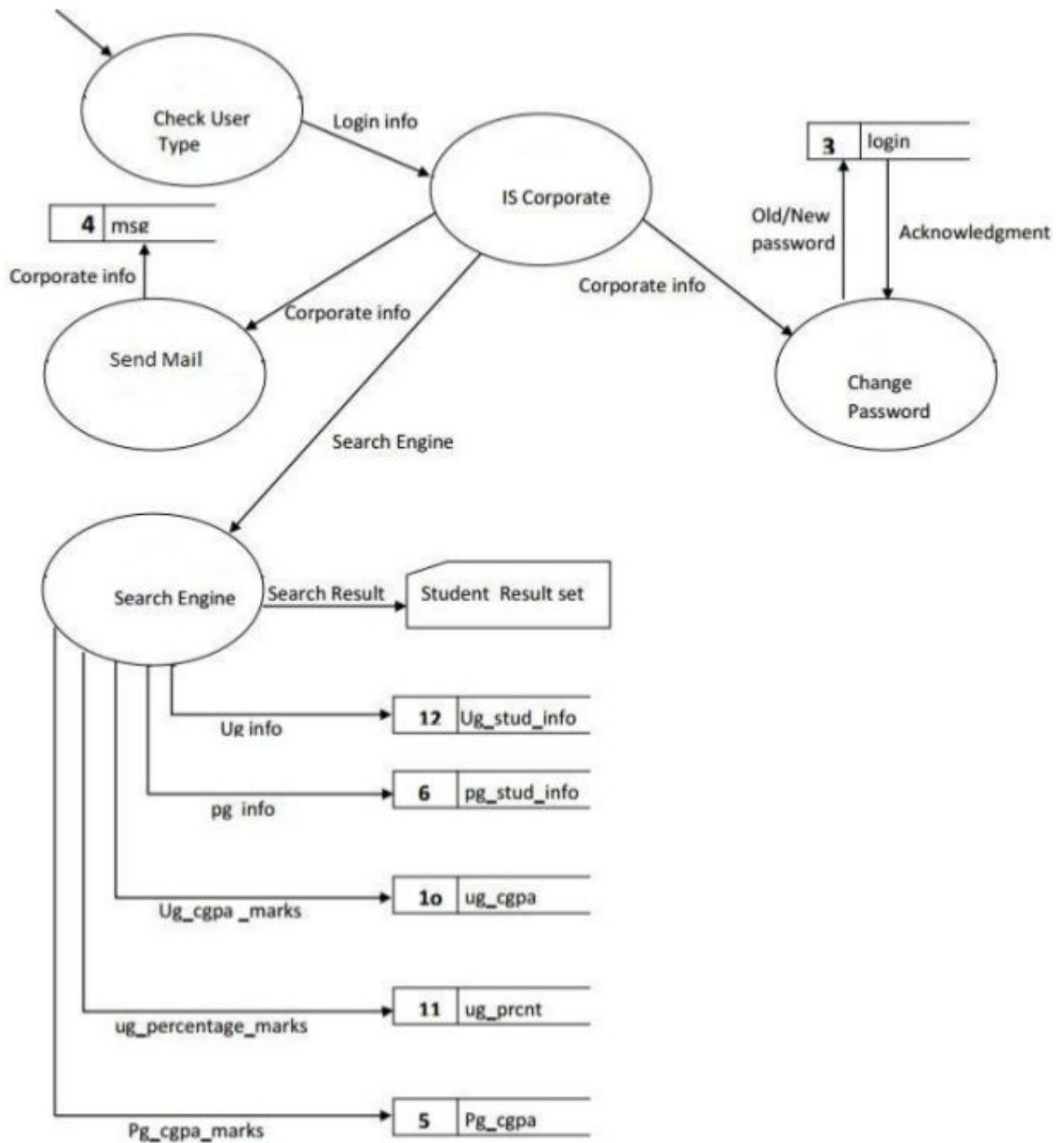


Fig11: Level 2 DFD for Company

## 3.2.5 Level 2 DFD for Administrator

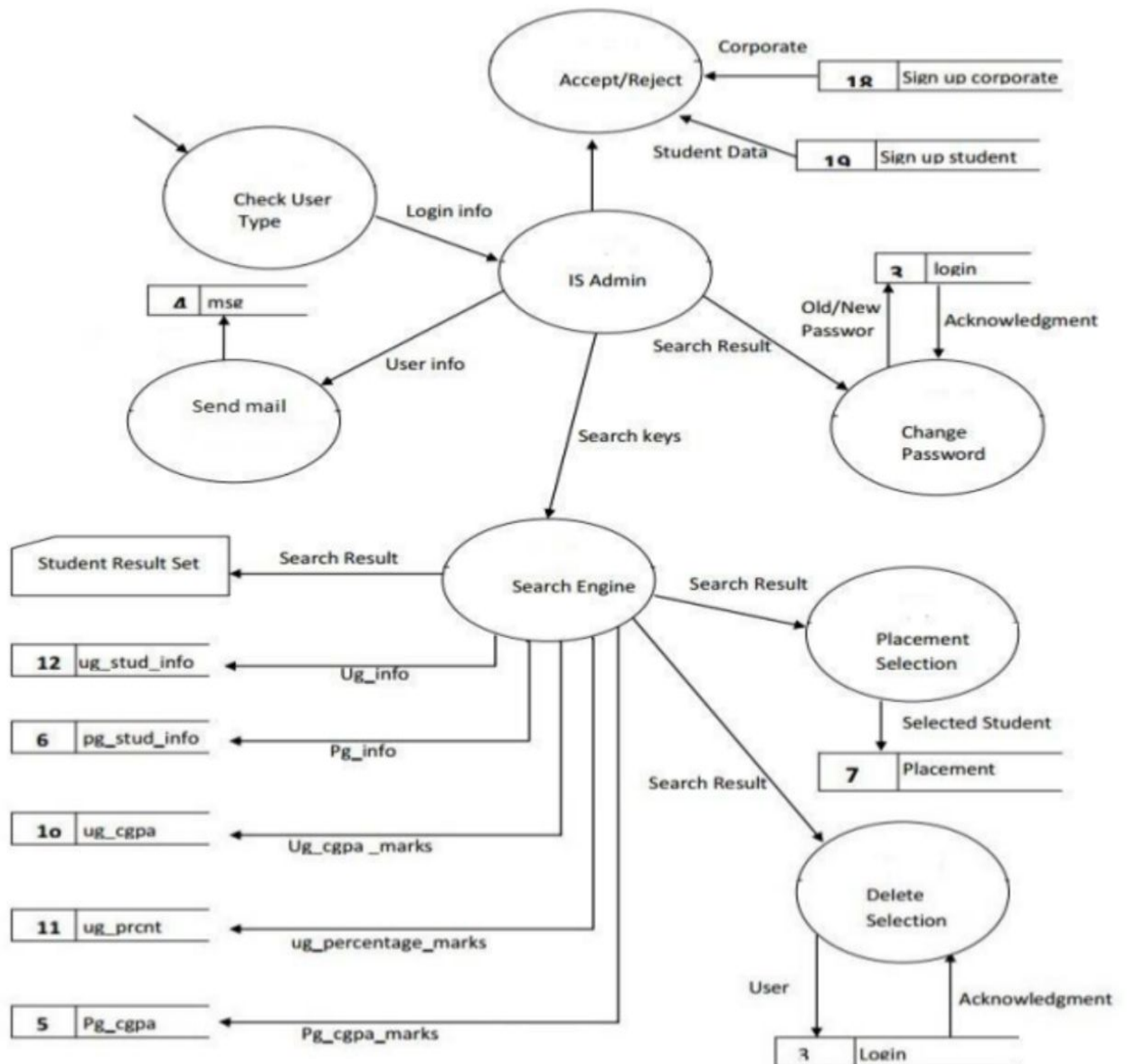


Fig12: Level 2 DFD for Administrator



### 3.3 Sequence Diagram

#### 3.3.1 Sequence diagram for Recruiter-

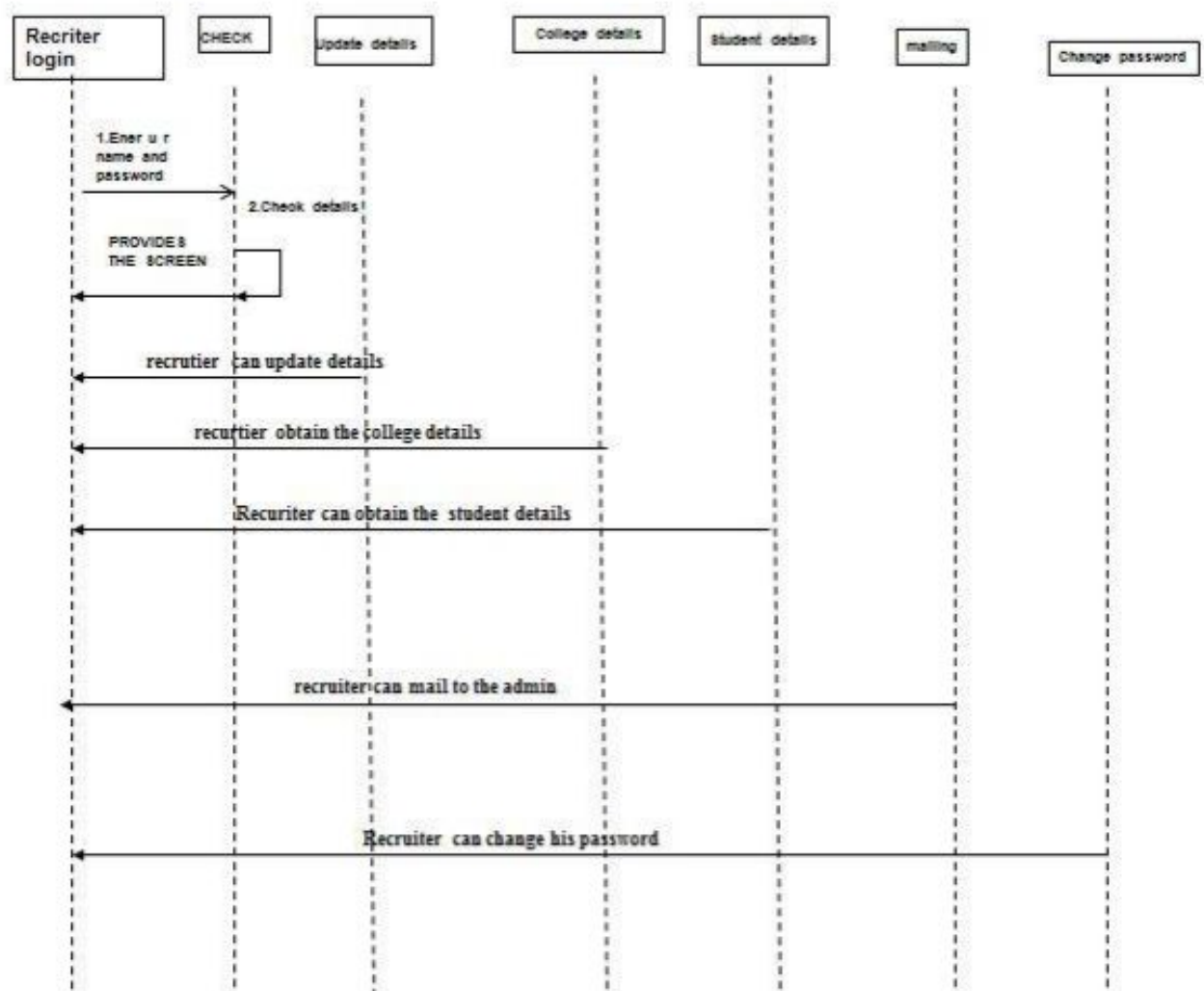


Fig13: Sequence Diagram for Recruiter

### 3.3.2 Sequence Diagram for Student-

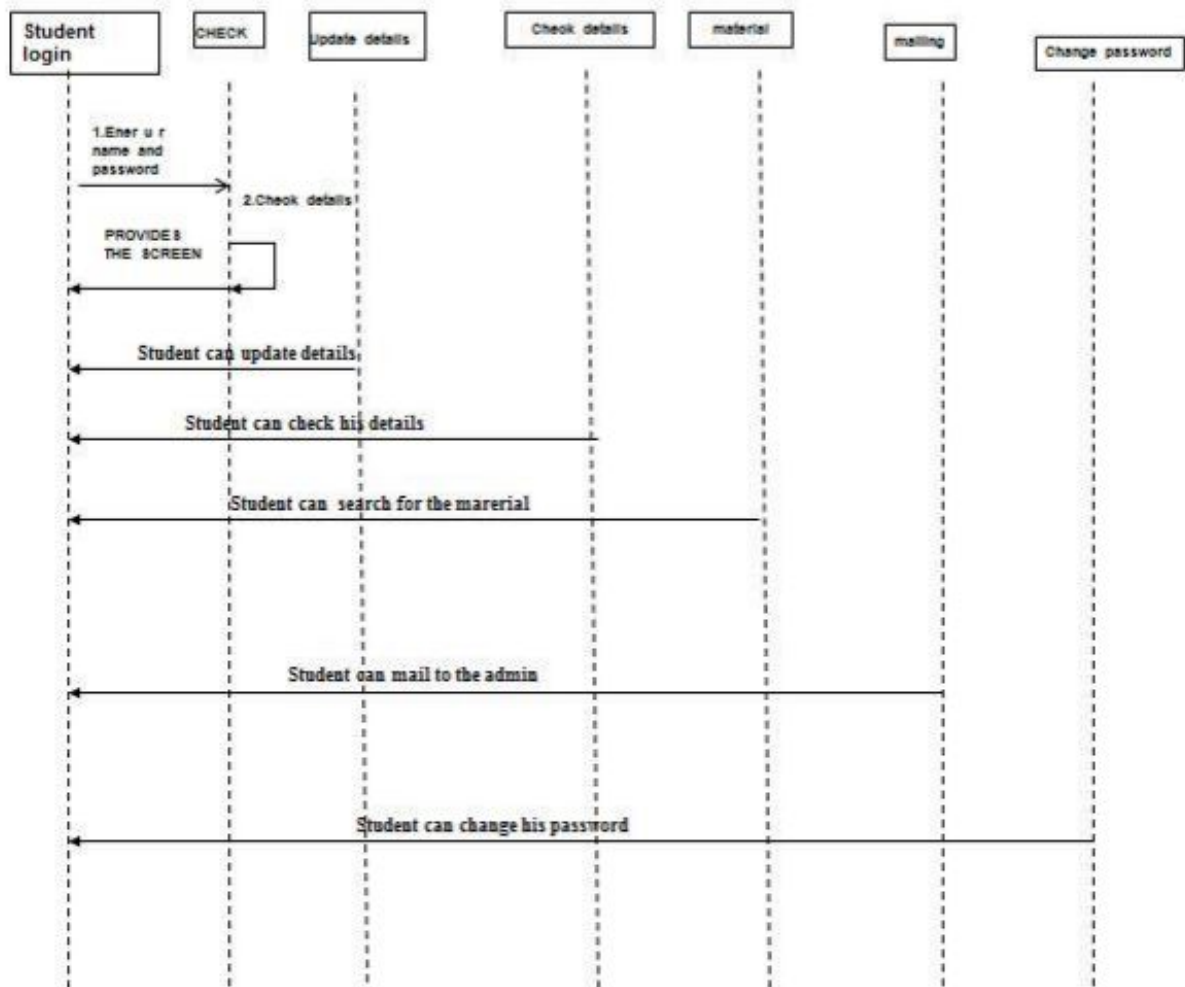


Fig14: Sequence Diagram for Student

## 3.3.3 Sequence Diagram for Administrator

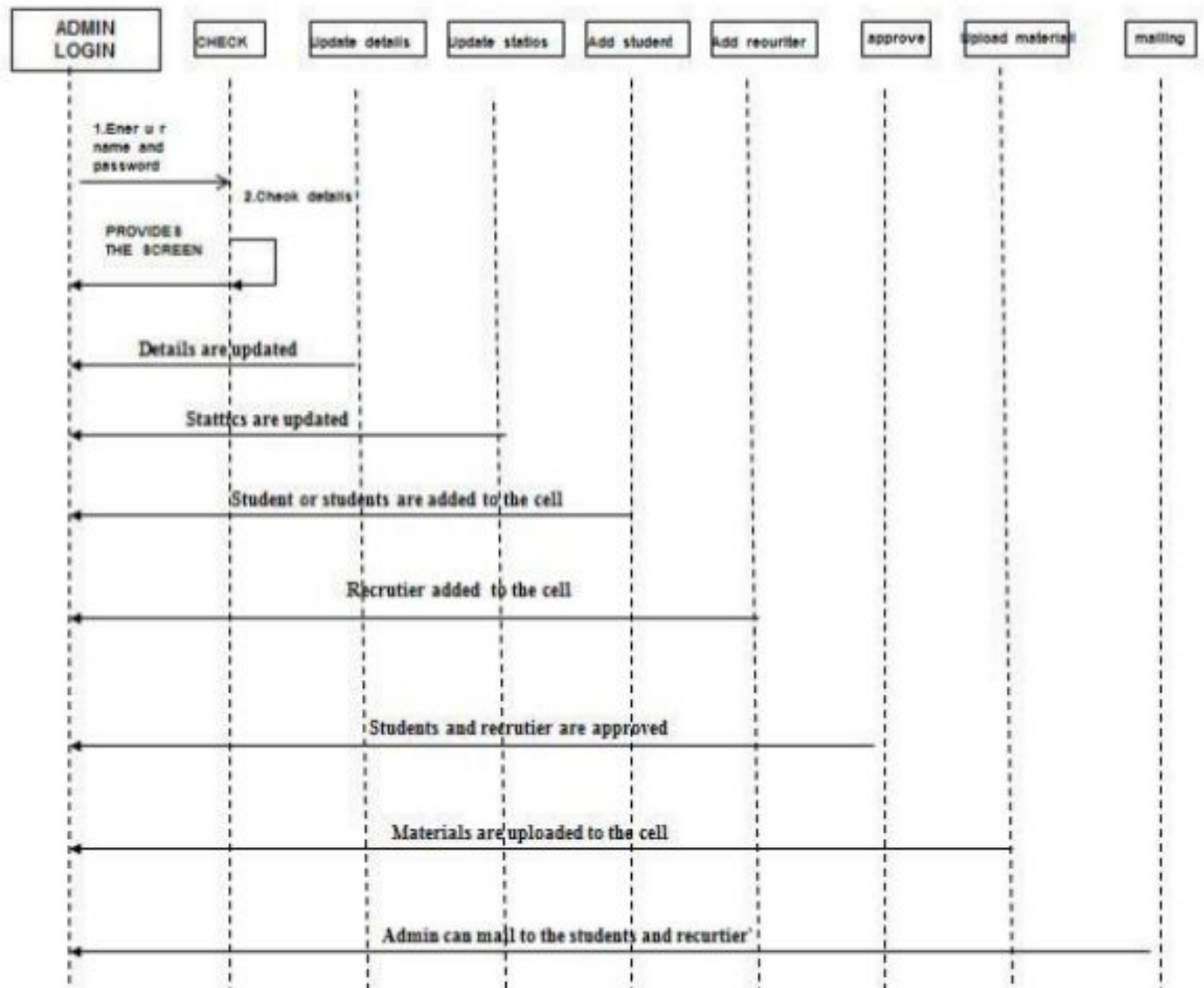
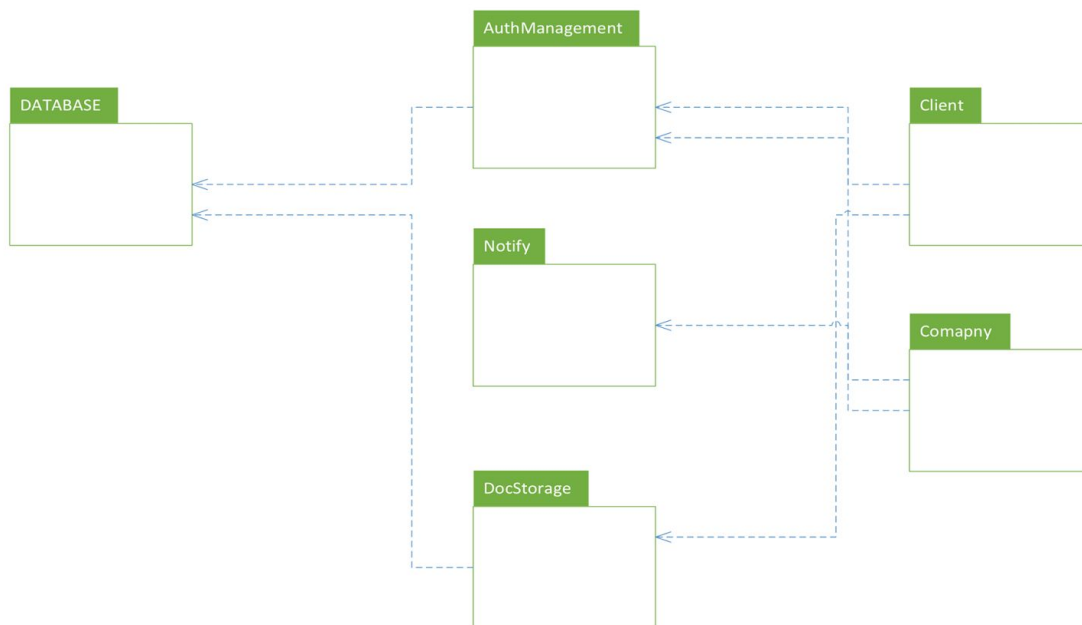


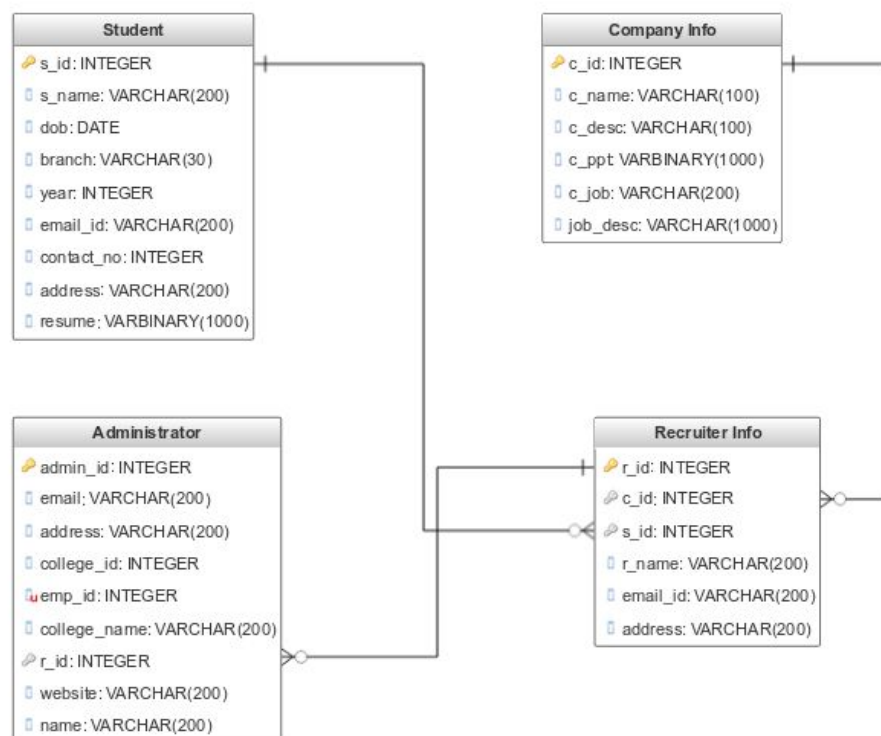
Fig15: Sequence Diagram for Administrator

### 3.4 Package Diagram



**Fig16: Package Diagram**

### 3.5 Database Design for Placement Management System



**Fig17: Database Design**

Thus, the placement management system has above mentioned modules, databases and follows defined interaction between different modules.

## **4. Conclusion**

The software design document thus defines the working of product Placement Management System where the different modules interact each other in order to achieve the required goal.