IACSD

INSTITUTE FOR ADVANCED
COMPUTING AND
SOFTWARE DEVELOPMENT
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Documentation On

**"Online Automated Placement
Management System"**
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# 1. <u>Introduction</u>

## <u>Overview</u>

This project is aimed at developing an web application for the Training and Placement Department of the College. The system is a web application that can be accessed throughout the organization with proper login provided. This system can be used as a web application for the Training and Placement Officers (TPO) of the college to manage the student information with regard to placement. Students logging should be able to see the drive detail and can see their placement status. The key feature of this project is that it is a onetime registration. Our project provides the facility of maintaining the details of the students. It also provides a requested list of candidates to recruit the students based on given query. Company logging in may also search any information put up by the students. This project will aid colleges to practice full IT deployment. This will also help in fast access procedures in placement related activities.

## <u>Problem Statement</u>

In Various colleges, training and placement officers have to manage the students profile and documents of students for their training and placement manually. Placement Officer have to collect the information of various companies who want to recruit students and notify students time to time about them. Placement Officer have to arrange profiles of students according to various streams and notify them according to company requirements. If any modifications or updates are required in the profile of any student, it has to searched and to be done it manually.

## <u>Product Scope</u>

This project traverses a lot of areas ranging from business concept to computing field, and required to perform several researches to be able to achieve the project objectives. The area covers include:
- Housing industry: This includes study on how the daily Society work actually is being done, process involved and opportunity that exist for improvement.
- J2EE Technology used for the development of the application.
- General customers as well as the society's staff will be able to use the system effectively.
- Web-platform means that the system will be available for access 24/7 except when there is a temporary server issue which is expected to be minimal.

## Aims & Objectives

Specific goals are: -

- The aim of the proposed system is to develop a system with improved facilities.

-  This system can overcome all the limitation of the existing system, such as student's information is maintained in the database, it gives more security to data, ensures data accuracy, reduces paper work and save time, only eligible students get chance, it makes information flow efficient and paves way for easy report generation, reduce the space.

- Proposed system is cost effective.

## **Overall Description**

### **Product Perspective:**

#### 2.1.1 Existing system function:

In Various colleges, training and placement officers have to manage the students profile and documents of students for their training and placement manually. Placement Officer have to collect the information of various companies who want to recruit students and notify students time to time about them. Placement Officer have to arrange profiles of students according to various streams and notify them according to company requirements. If any modifications or updates are required in the profile of any student, it has to searched and to be done it manually.

- **III. PROPOSED SYSTEM**

System functionality:
Online Automated Placement Management System provides the features for Student, Training Placement Officer(TPO), Head Of Department(HOD) and Company. It includes several functionalities describes as below:

*Student Functionality:*
It provides facility to student register. In the student registration form, student can give personal details, educational qualifications, and professional skills. After successful registration student can login to the system by using email, password and selecting role as student. After login Student includes several functionalities describes as below:

- *Drive Detail:*
  The student can see the drive detail Verify by Training placement officer (TPO).
- *Placement Status:*
  The student can see updated placement status if he or she is place or not.

*Company Functionality:*
The system has facility to register a company. In company registration form, company can give company details. After successful registration company can login to the system by using email, password and selecting role as company. After login company includes several functionalities describes as below:

- *Drive:*

  The company can see list of drive arrange by the company and can add drive by click on add drive button. By clicking on add drive button a drive detail from will be open where company can fill drive details. After filling drive detail company can update this detail an can add number of job belonging to that drive. There is also view option available for every person to view the drive details.

- *Give Feedback:*

  After conducting campus drive company can give the this feedback by posting list of selected student.

*Training Placement Officer (TPO):*

The Training Placement Officer can register in this application by filling basic details. After successful registration TPO can login to the system by email Id, password and role is selected as TPO. After login training placement officer includes several functionalities describes as below:

- *Drive:*

  The TPO has a functionality of drive, in which TPO can view the detail posted by varies company and can verify the drive timing and date , an can change the status of drive from non- verified to verified .

*Head Of Department (HOD):*

The Head Of Department can register in this application by filling basic details. After successful registration HOD can login to the system by email Id, password and role is selected as HOD. After login training placement officer includes several functionalities describes as below:

- *Drive:*

  The HOD has a functionality of drive, in which HOD can view the detail posted by varies company of the drive.

- *Placement Record:*

  The HOD has a functionality of placement record, in which HOD can view the detail posted by varies drive an can see the list of student which are placed.

**Benefits of Online Automated Placement Management System**

- This online automated placement management solution is fully functional and flexible.
- It is very easy to use.
- This online automated placement management solution helps in manage student details and can update it .
- It saves a lot of time, money and paper work.
- Eco-friendly: The monitoring of the placement management and the overall drive process becomes easy and includes the least of paper work.
- The application acts as an office that is open 24/7.
- It increases the efficiency of the management at offering quality services to the user.
- It provides custom features development and support with the application.

**Users and Characteristics:**

Student

- Student can login to the system.
- View the list of job detail for which the student is eligible.
- Update profile.
- View Company details.
- View Placement Status.

Company:

- Company can login to the system.

- View drive list details.

- View drive details.

- Add Drive details.

- Update drive details and can add job details in any drive.

- Company can give the feedback posting the list of selected student for particular job.

Training Placement Officer (TPO):

- TPO can login to the system.

- View drive list details.

- Can verify drive details and can update the status of drive from non-verify to verify by which system will generate auto the list of student which company can see in their feedback functionality.

- Add Drive details.

Head Of Department(HOD):

- HOD can login to the system.

- View drive list details.

- View the list of placed student with company details in which he/she is placed.

## **Operating Environment:**

### Server Side:

**Processor:** Intel® Xeon® processor 3500 series

**HDD:** Minimum 500GB Disk Space

**RAM:** Minimum 2GB

**OS:** Windows 8.1, Linux 6

**Database:** MySQL 8.0

### Client Side (minimum requirement):

**Processor:** Intel Dual Core

**HDD:** Minimum 80GB Disk Space

**RAM:** Minimum 1GB

**OS:** Windows 7, Linux

### Design and Implementation Constraints:

- The application will use Ajax, JavaScript, jQuery and css as main web technologies.
- HTTP and FTP protocols are used as communication protocols. FTP is used to upload the web application in live domain and the client can access it via HTTP protocol.
- Several types of validations make this web application a secured one and SQL Injections can also be prevented.
- Since Online Automated Placement Management System is a web-based application, internet connection must be established.
- The Online Automated Placement Management System will be used on PCs and will function via internet or intranet in any web browser.

## Specific Requirement

### External Interface Requirements:

User Interfaces:
- All the users will see the same page when they enter in this website. This page asks the users a email-Id, password and role .
- After being authenticated by correct email-Id and password, user will be redirect to their corresponding profile where they can do various activities.
- The user interface will be simple and consistence, using terminology commonly understood by intended users of the system. The system will have simple interface, consistence with standard interface, to eliminate need for user training of infrequent users.

Hardware Interfaces:
- No extra hardware interfaces are needed.
- The system will use the standard hardware and data communication resources.
- This includes, but not limited to, general network connection at the server/hosting site, network server and network management tools.

    <u>Application Interfaces:</u>

**OS:** Windows 7, Linux

**Web Browser:**

The system is a web-based application; clients need a modern web browser such as Mozilla Firebox, Internet Explorer, Opera, and Chrome. The computer must have an Internet connection in order to be able to access the system.

    <u>Communications Interfaces:</u>

- This system uses communication resources which includes but not limited to, HTTP protocol for communication with the web browser and web server and TCP/IP network protocol with HTTP protocol.

- This application will communicate with the database that holds all the booking information. Users can contact with server side through HTTP protocol by means of a function that is called HTTP Service. This function allows the application to use the data retrieved by server to fulfil the request fired by the user.
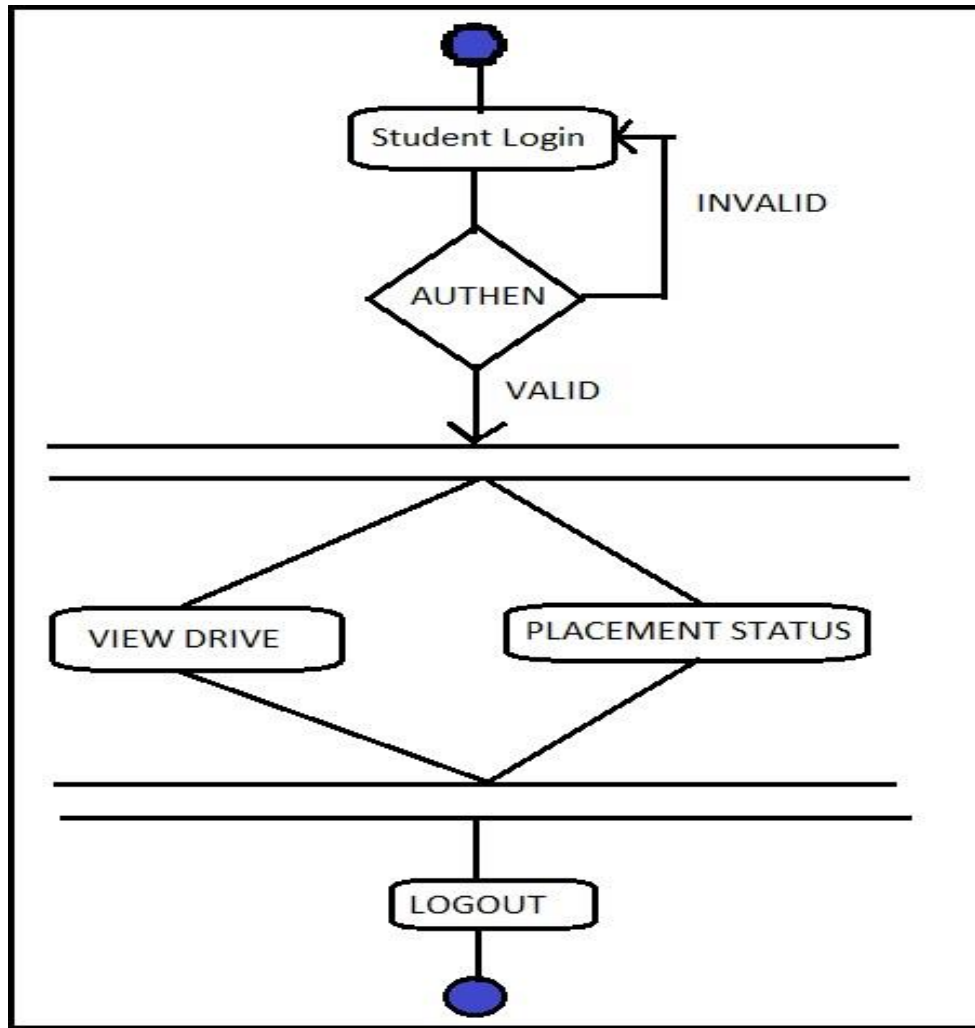
# System Design

## Activity Diagram
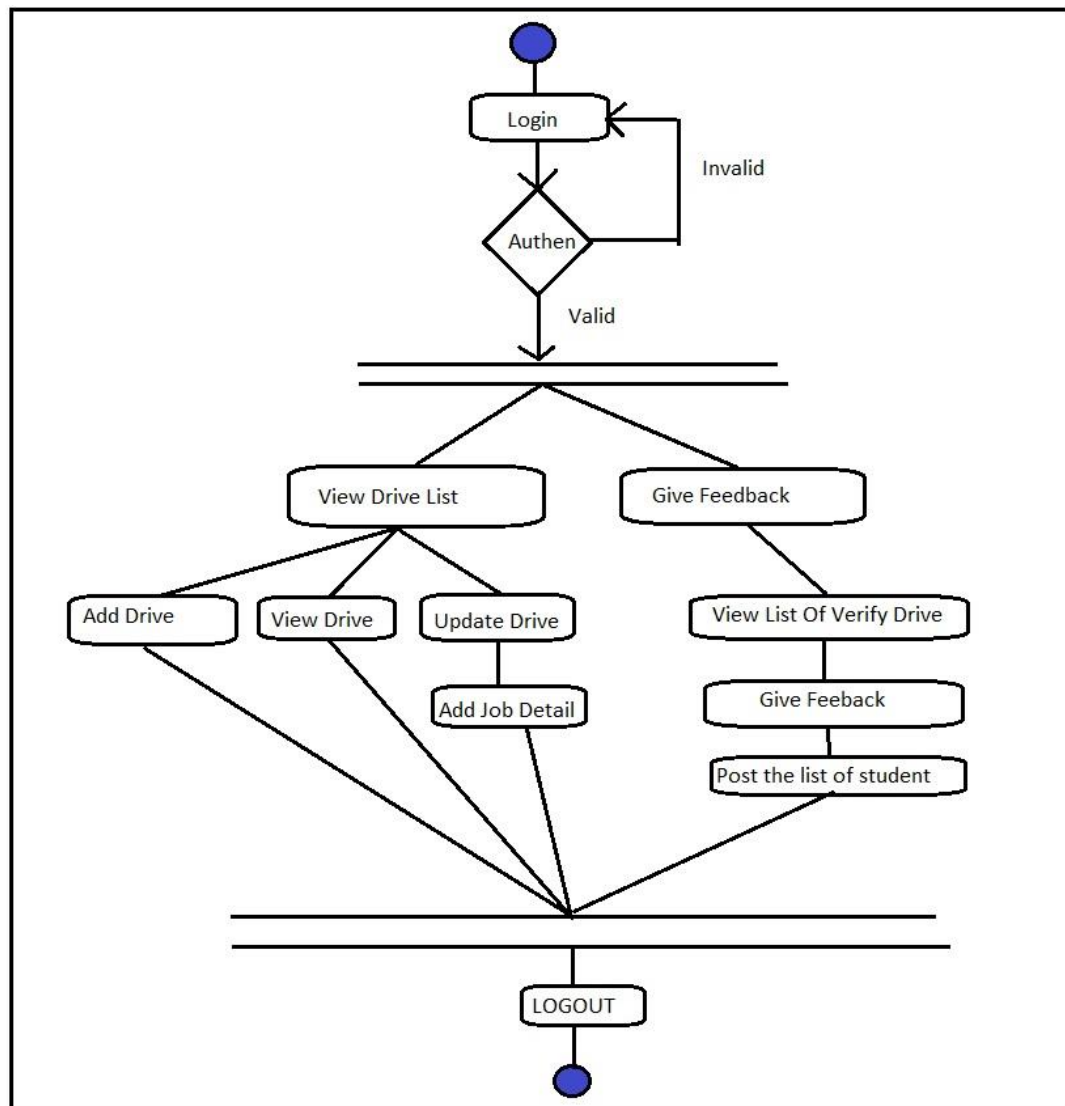


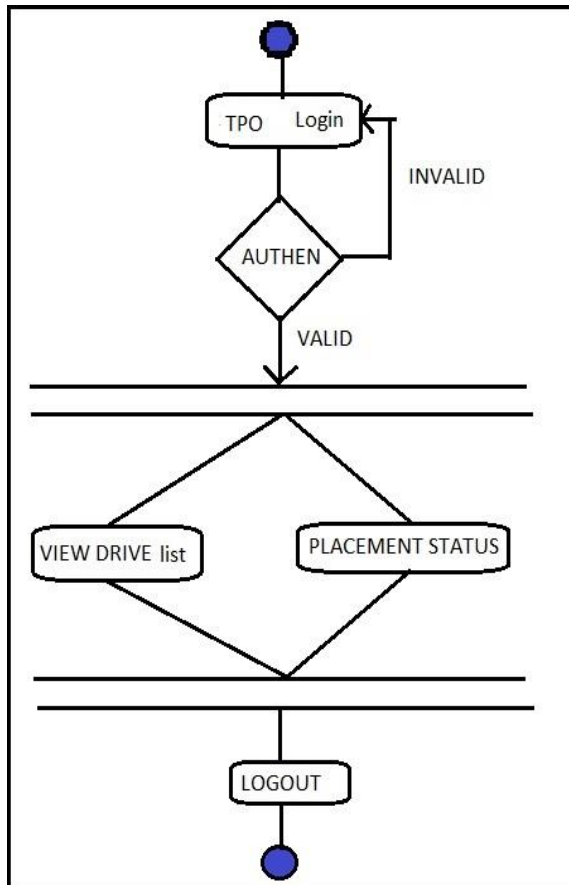**Figure 1: Student Activity Diagram**

**Figure 2: Company Activity Diagram**

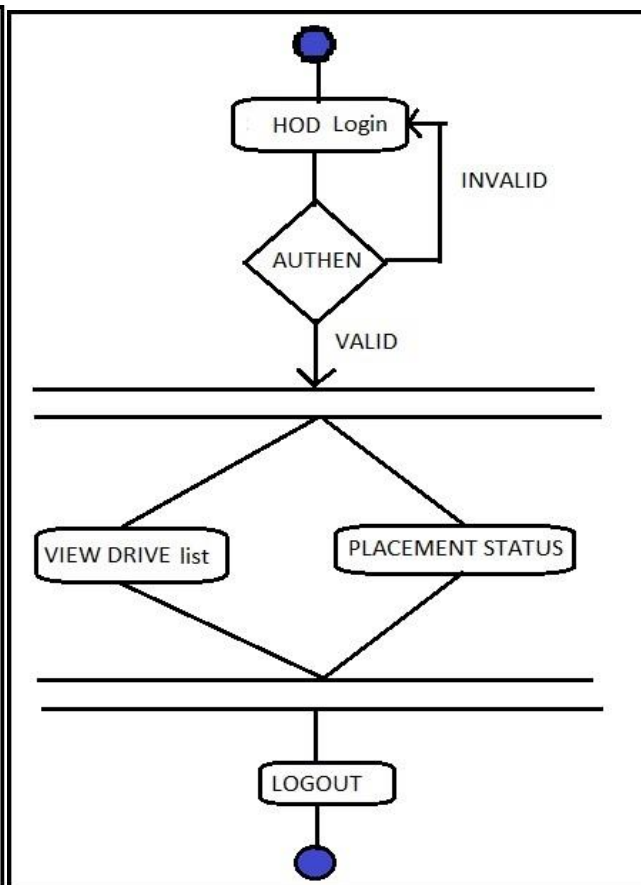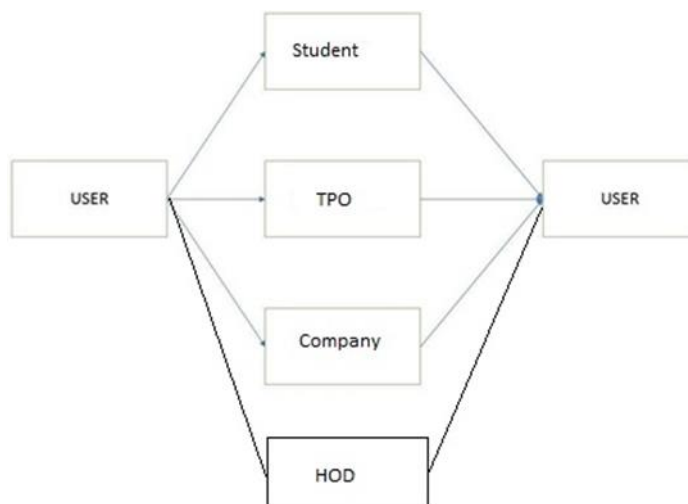**Figure 3: TPO Activity Diagram**          **Figure 4: HOD Activity Diagram**

**Data Flow Diagram**



**Figure 5: Level 0 Data Flow Diagram**
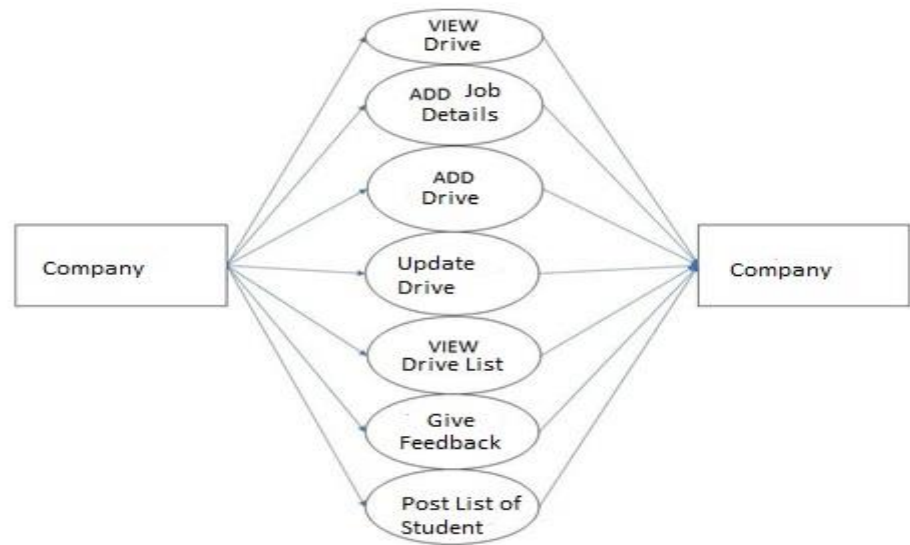


**Figure 6: Level 1 Data Flow Diagram**

**Figure 7: Level 2 Data Flow Diagram for Company**
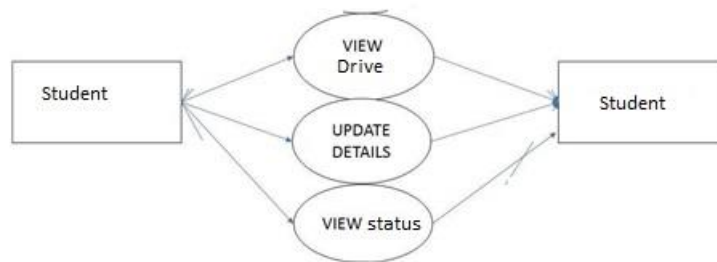


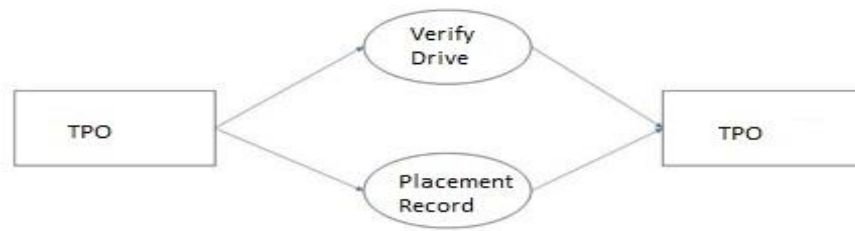**Figure 8: Level 2 Data Flow Diagram for Student**

**Figure 9: Level 2 Data Flow Diagram for Training
Placement Officer (TPO)**
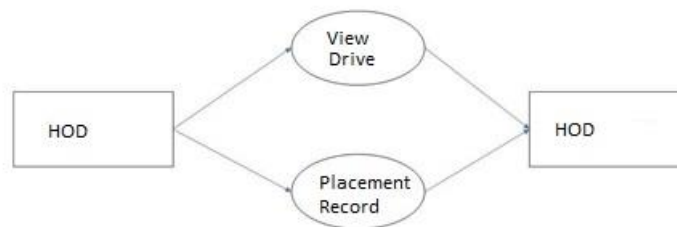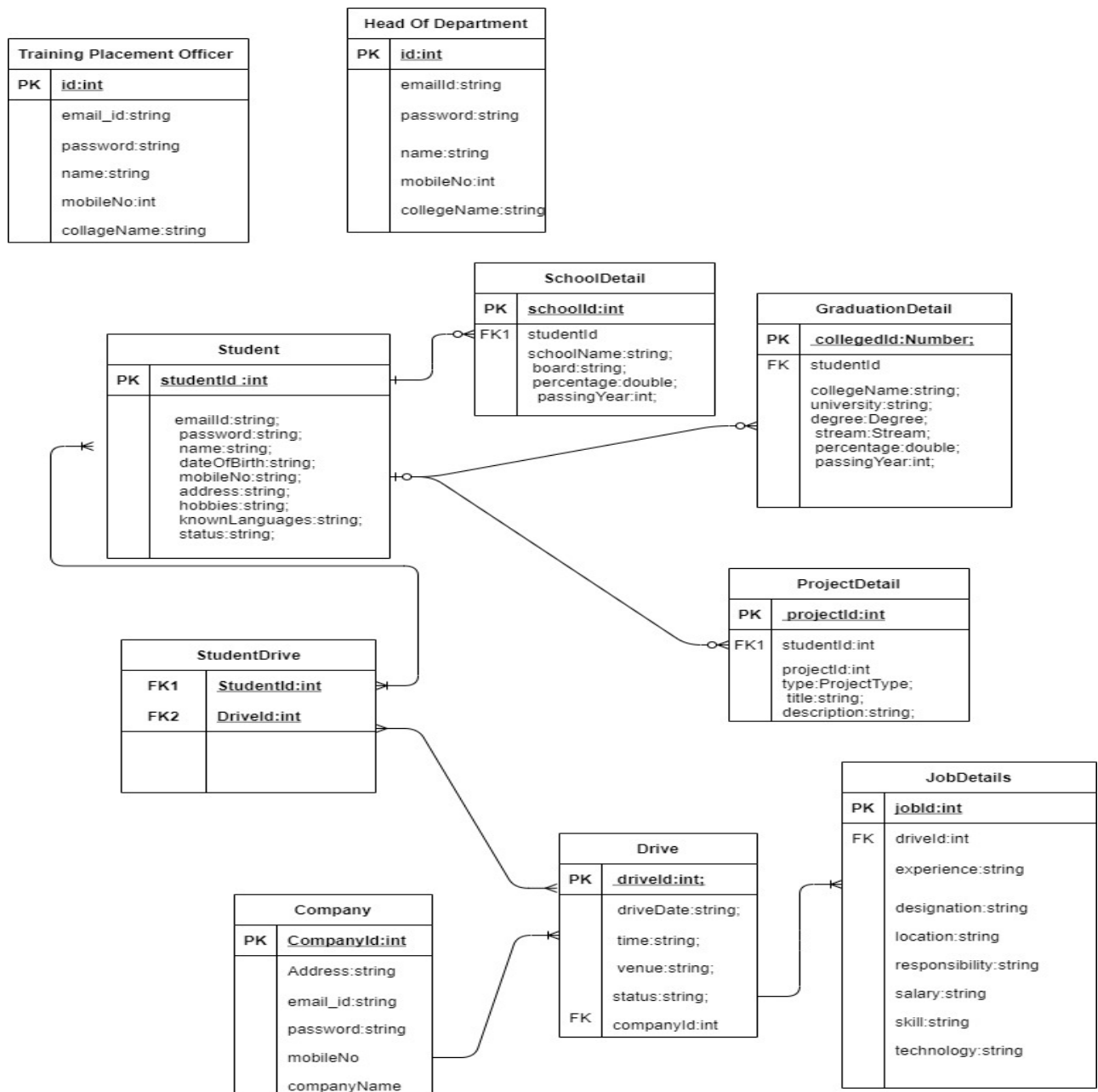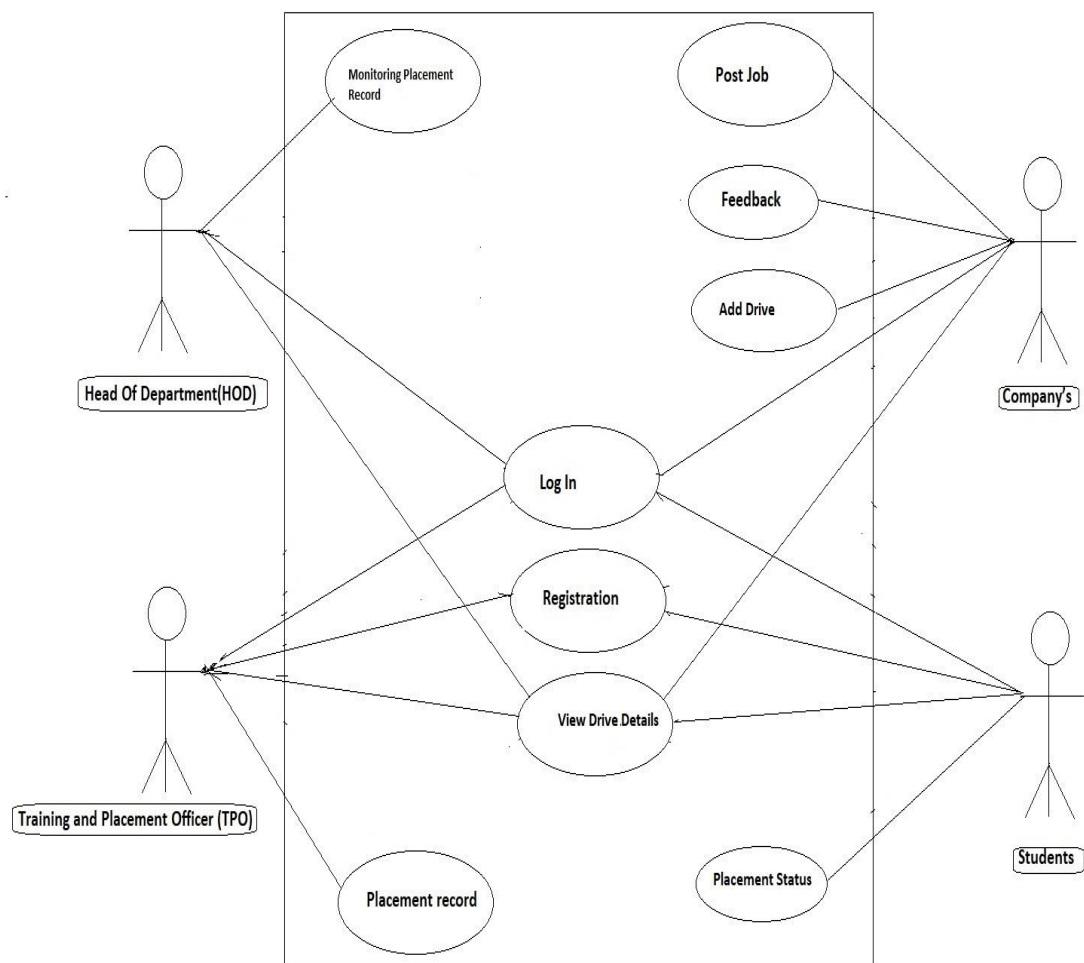


**Figure 10: Level 2 Data Flow Diagram for  Head Of
Department(HOD)**

## Class Diagram



**Figure 11: Class Diagram**
**Of Student, Company , TPO   and  HOD**

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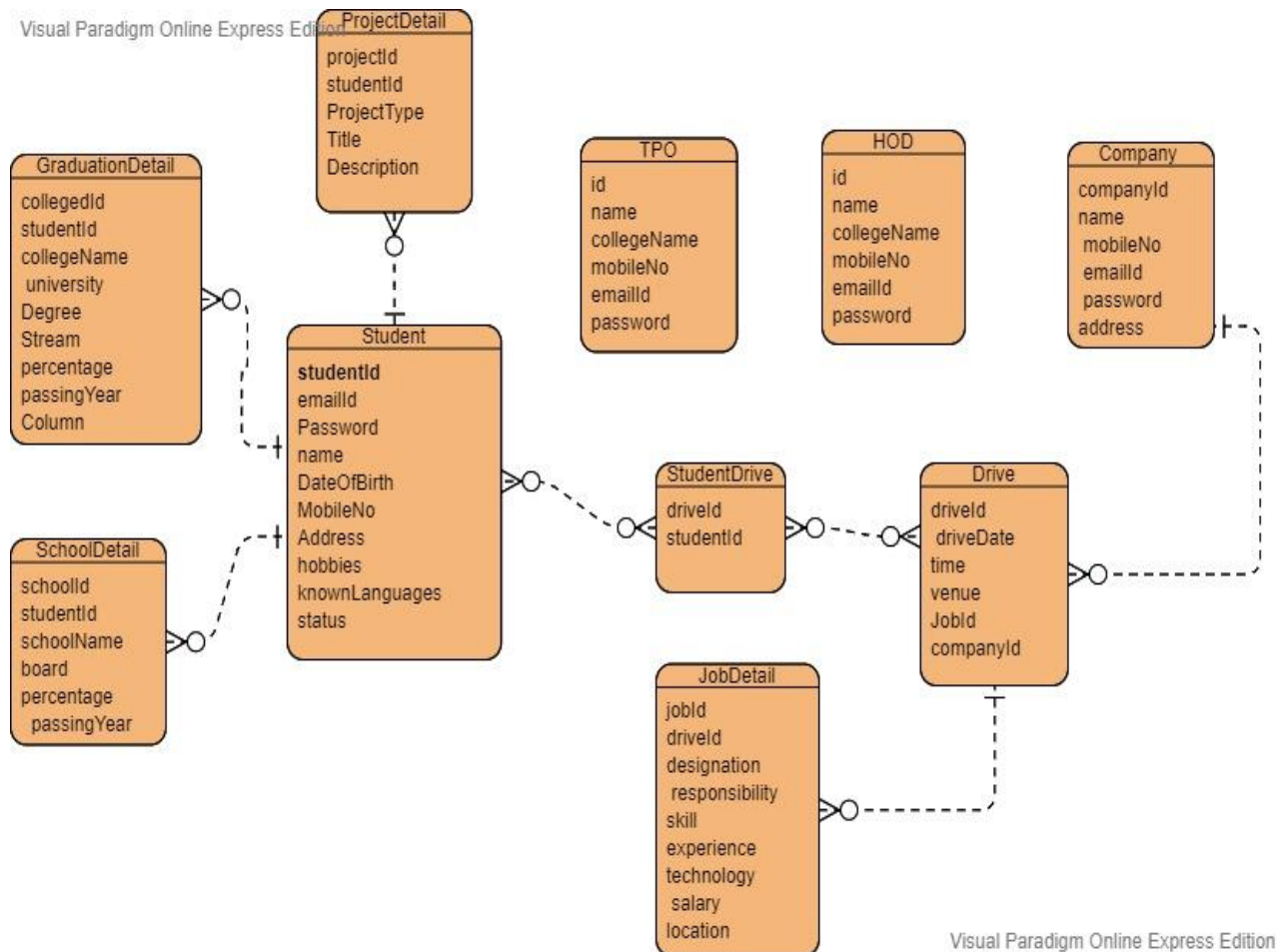## Use Case Diagram



**Figure 12: Use Case Diagram**

**ER Diagram**

## **Table Structure**

### **Training Placement Officer :**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| id | int | NO | PRI | | auto_increment |
| college_name | varchar(30) | YES | | | |
| email_id | varchar(30) | YES | UNI | | |
| mobile_no | varchar(30) | YES | UNI | | |
| name | varchar(30) | YES | | | |
| password | varchar(150) | YES | | | |

### **Head Of Department:**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| id | int | NO | PRI | | auto_increment |
| college_name | varchar(30) | YES | | | |
| email_id | varchar(30) | YES | UNI | | |
| mobile_no | varchar(30) | YES | UNI | | |
| name | varchar(30) | YES | | | |
| password | varchar(150) | YES | | | |

### **Student:**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| student_id | int | NO | PRI | | auto_increment |
| student_address | varchar(150) | YES | | | |
| studentdob | varchar(255) | YES | | | |
| student_email_id | varchar(30) | YES | UNI | | |
| student_hobbie | varchar(30) | YES | | | |
| student_language | varchar(30) | YES | | | |
| student_mobile_no | varchar(30) | YES | UNI | | |
| student_name | varchar(30) | YES | | | |

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| | | | | | |
|---|---|---|---|---|---|
| student_password | varchar(150) | YES | | | |
| status | varchar(30) | YES | | | |

## Company:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| company_id | int | NO | PRI | | auto_increment |
| address | varchar(120) | YES | | | |
| email_id | varchar(30) | YES | UNI | | |
| mobile_no | varchar(30) | YES | UNI | | |
| company_name | varchar(30) | YES | UNI | | |
| password | varchar(150) | YES | | | |

## School Detail:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| school_id | int | NO | PRI | | auto_increment |
| board | varchar(30) | YES | | | |
| passing_year | int | YES | | | |
| percentage | double | YES | | | |
| school_name | varchar(30) | YES | | | |
| student_id | int | NO | MUL | | |

## Graduation Detail:

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| colleged_id | int | NO | PRI | | auto_increment |
| college_name | varchar(30) | YES | | | |
| degree | varchar(255) | YES | | | |
| passing_year | int | YES | | | |
| percentage | double | YES | | | |
| stream | varchar(255) | YES | | | |
| university | varchar(30) | YES | | | |
| student_id | int | NO | MUL | | |

**Project Detail:**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| project_id | int | NO | PRI | | auto_increment |
| project_description | varchar(30) | YES | | | |
| project_title | varchar(30) | YES | | | |
| type | varchar(255) | YES | | | |
| student_id | int | NO | MUL | | |

**Campus Drive Detail:**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| drive_id | int | NO | PRI | | auto_increment |
| drive_date | varchar(255) | YES | | | |
| interview_time | varchar(255) | YES | | | |
| venue | varchar(255) | YES | | | |
| company_id | int | YES | MUL | | |
| status | varchar(255) | YES | | | |

**Job Detail:**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| job_id | int | NO | PRI | | auto_increment |
| experience | int | YES | | | |
| designation | varchar(30) | YES | | | |
| location | varchar(30) | YES | | | |
| responsibility | varchar(30) | YES | | | |
| salary | double | YES | | | |
| skill | varchar(30) | YES | | | |
| technology | varchar(30) | YES | | | |
| drive_id | int | YES | MUL | | |

**Drive And Student:**

| Field | Type | Null | Key | Default | Extra |
|---|---|---|---|---|---|
| student_id | int | NO | PRI | | |
| drive_id | int | NO | PRI | | |

## **Conclusion**

From a proper analysis of positive points and constraints on the component, it can be safely concluded that the product is a highly efficient GUI based component. This component can be easily plugged in many other systems. Also the component is user friendly. Generally the TPO's of the Colleges has to face a lot of problems in management of the Students information. This all information has to be managed manually. So, there is a need to develop a system that can solve the mentioned problem. This software comes with just that solution.

## **Future Scope**

Future scope of the project: Though our project is itself matured enough but still betterment is always an open door. In this case also we can add some features to this software to make this software more reliable. These are as follows:- -

- Firstly, during the development of the project my prime object was to keep the hardware & software requirement as minimum as possible so that it supports maximum user base.
- Secondly, the searching procedure should be very strong like placement officer can search student as fast as possible.
- Thirdly, modify the project with better approach with more graphics.
- Fourthly, the back-up procedure can be incorporated to make sure of the database integrity.
- Fifthly, recruiter can visit any time through this application and communicate with Placement officer.
- Sixthly, Placement officer can contact with both student and company through message. Student and company can also send message to Placement Officer.

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# **7.0 References**

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