Software Requirement Specification(SRS)- E-Placement Management System

Introduction-

1.1 Purpose

This document is meant to delineate the features of EPMS, so as to serve as a guide to the developers on one hand and a software validation document for the prospective client on the other.
The EPMS for placement department of the college this web application is intended to provide complete solutions for college as well as students and company through a single get way using the internet. The system contains all the information about the students. The system stores all the personal information of the students and their technical skills that are required in the CV to be sent to a company.

1.2 Scope:

This system allows the TPO to access students profile for analyzing placed and not placed student over the internet.

1.3 Defination:

EPMS- E-Placement Management System
SRS- Software Requirement Specification
GUI- Graphical User Interface
Stackholder- The person who will participate in system
Ex. Students, TPO, Company etc.

1.4 References:

1.5 Overview:

This system provides an easy solution for students to easy apply the companies without going to the college or some else and also to maintain their own information over the internet.
This proposed system can be used by at college level specific for placement department.

2.Overall Description:

The EPMS enables companies to arrange online campus drive, students to browse through the web app, and a TPO can add and delete criteria to set for students according to companies and maintain lists of companies.
The EPMS will use the internet as the sole method for providing placements to its students.

2.1 Product Perspective:

This product aimed toward a college who want proper management regarding placement in college and avoiding extra paperwork's.
And companies also easy to arrange campus drive.

2.2 Product Functions:

EPMS should support this use case:

2.3 Students Characeristics:

Students should be familiar with the terms like login, register etc.

2.4 Principle Actors:

2 Principle Actors are Students and TPO.

2.5 General Constraints:

A full internet connection is required for EPMS.

2.6 Assumptions and Dependencies :

Working of EPMS need Internet Connection.

3. Specific Requirements:

3.1 Functional Requirements:

This section provides requirement overview of the system. Various functional modules that can be implemented by the system will be -

3.1 Description:

3.1.1 Registration

If students wants to the use web app then he/she must
be registered, unregistered students can't go to the EPMS.

3.1.2 Login
Students logins to the system by entering
valid id and password for the.

3.1.5 Logout
After processing or surfing for the student has to
logout.

3.1.6 Report Generation
After placed students, the system will sent one copy of the placed student list to the TPO Email-address and another one
for the system data base.

3.2 Non-Functional Requirements:
Following Non-Functional Requirements will be there in the insurance to the internet:
(i) Secure access to students confidential data.
(ii) 24X7 availability**.**
(iii) Better component design to get better performance at peak time.
(iv) Flexible service based architecture will be highly desirable for future extension. Non-Functional Requirements define system properties and constraints.

Various other Non-Functional Requirements are:

- **Security**
- **Reliability**
- **Maintainability**
- **Portability**
- **Extensibility**
- **Reusability**
- **Compatibility**
- **Resource Utilization**

3.3 Performance Requirements:

In order to maintain an acceptable speed at maximum number of uploads allowed from a particular students as any number of users can access to the system at any time.
Also the connections to the servers will be based on the attributes of the user like his location and server will be working 24X7 times.

3.4 Technical issues:

This system will work on client-server architecture. It will require an internet server and which will be able to run Spring boot application. The system should support some commonly used browser such as IE, mozzila, firefox, chrome etc.

4 . Interface Requirement:

Various interfaces for the product could be-
1). Login Page
2). Registration Form
3). There will be a screen displaying information about students that the shop having.
4). If the students select the education details button then another form will be opened.
5). After applying for the drive, the system will sent one mail to the students Email address

Software Interface:

1.Operating System: Windows10 which supports networking.
2.JAVA development tool kit(1.8)
3.Spring boot STS 4.9
4.Angular
5.Mysql 8.0

Hardware Interface:

Hardware requirements for insurance on internet
will be same for both parties which are as follows:
Processor: Min i3
RAM:4 to 8 GB
Hard Disk:320 GB

NIC: For each party

Communication Interfaces:
The two parties should be connected by LAN or WAN for the communication purpose.
SENDER Communication channel

5 . System Design Specification:

5.1 Architecture Design:

5.1.1 Data Flow Diagram(DFD):
It is a way of representing system requirements in graphical form this led to modular design. A DFD describes a data flow(logical) rather than how they are processed. So they do not depend upon software, hardware, data structure or file organization. It is also known as ‘bubble sort’.
A DFD is a structured analysis and a design tool that can be used for flowcharting in association with, information-oriented and process oriented system flowcharts.
A DFD is considered as an abstract of the logic of information-oriented or process-oriented system flowchart.
The four basic symbols used to construct data flow diagrams are-

1. 

A rectangle represents a data source or destination.

2. 

SENDER RECEIVER
A directed line represents flow of data.

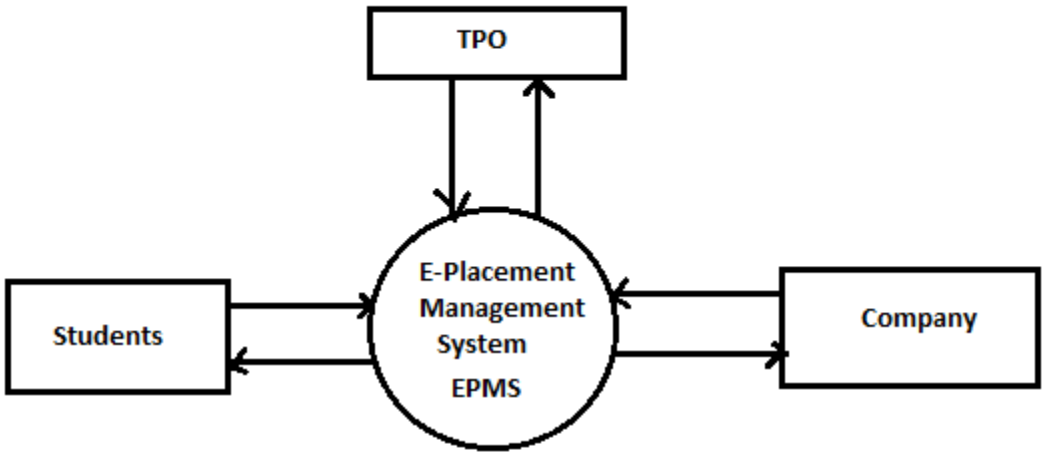
3. 

An Oval represents a process that transforms into streams.

4. 

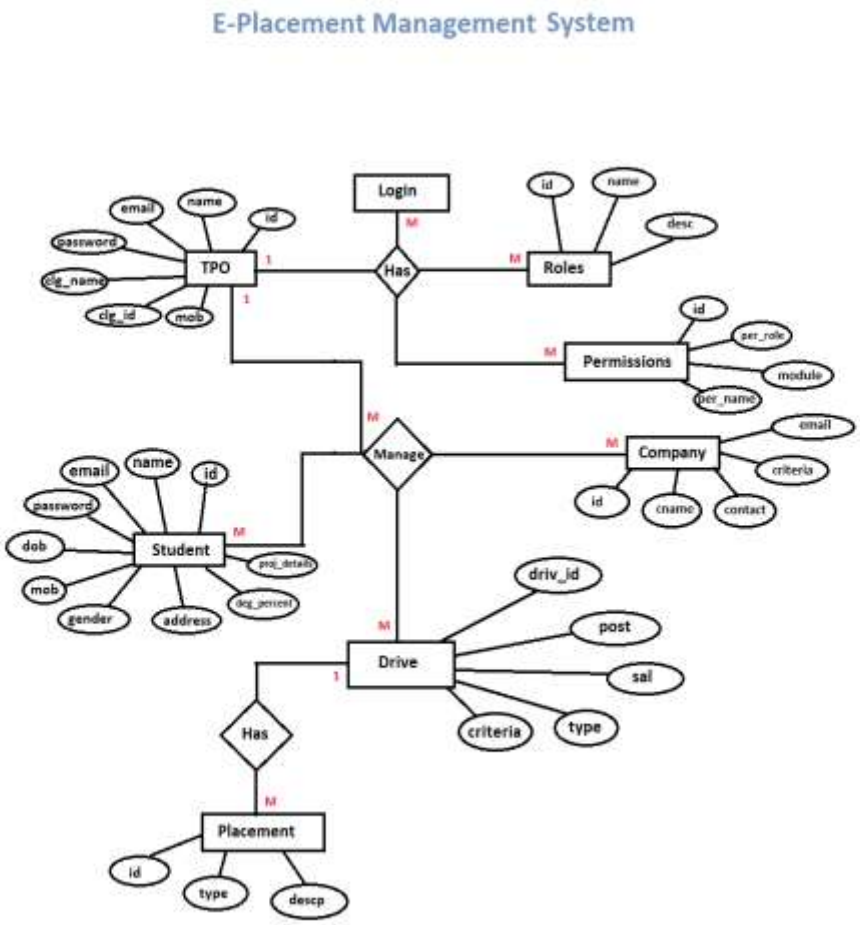
An Open ended rectangle represents storage.
The points at which data is transformed are called as nodes.

CONTEXT ANALYSIS DIAGRAM(CAD)

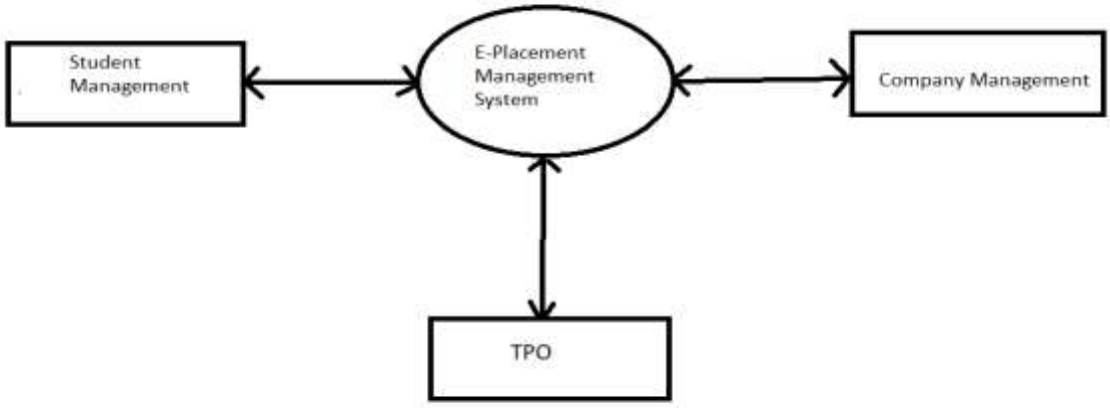


Context Anaylisis Diagram CAD

E-R DIAGRAM

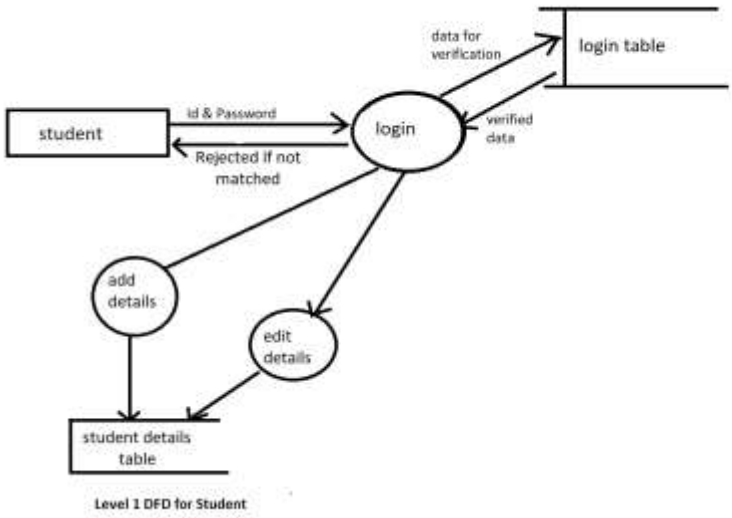

E-Placement Management System
Login
id
name
desc
Roles
Has
TPO
email
name
id
password
clg_name
clg_id
mob
Permissions
id
per_role
module
per_name
Manage
Company
email
criteria
id
cname
contact
Student
email
name
id
password
dob
mob
gender
address
proj_details
dcg_percent
Drive
driv_id
post
sal
type
criteria
Has
Placement
id
type
descp

Zero Level DFD



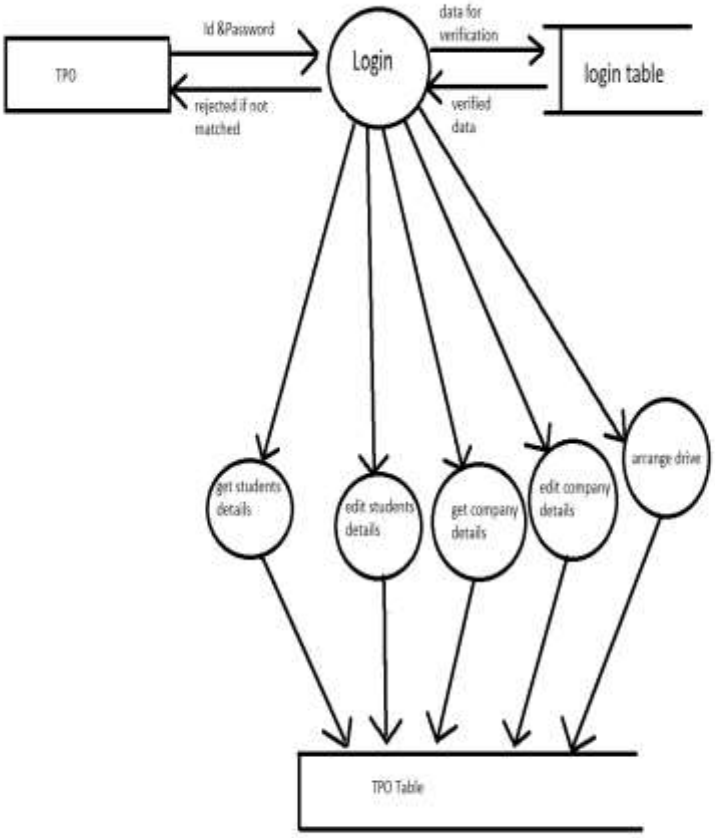
Zero Level DFD-E -Placement Management System

One Level DFD for Student



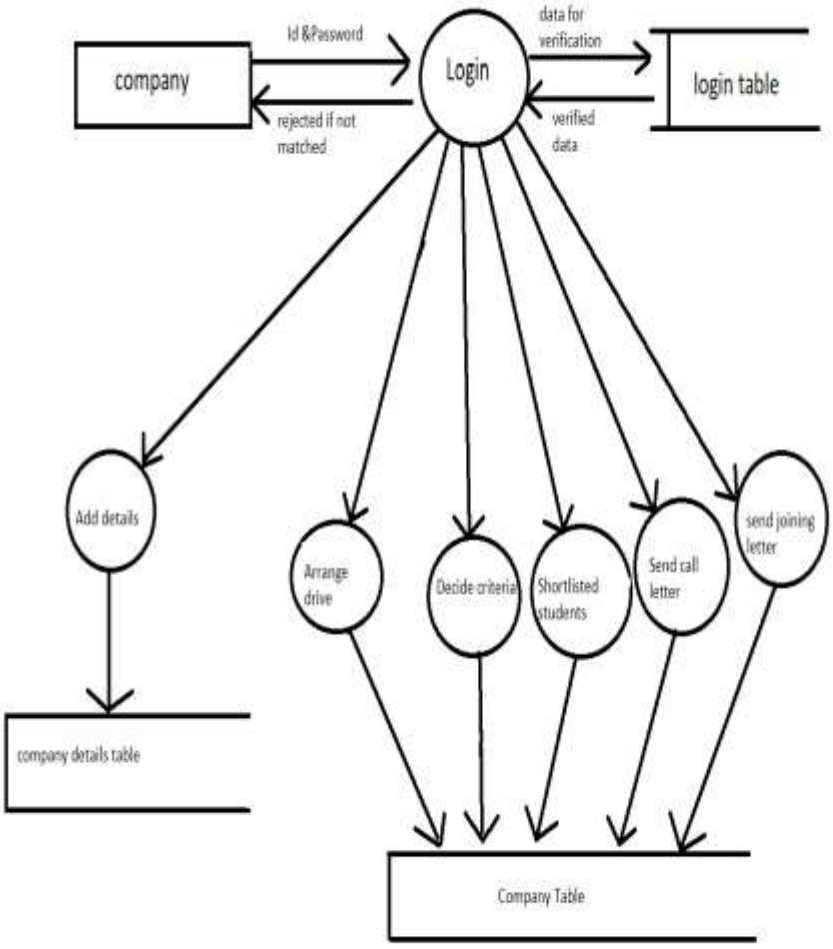
Level 1 DFD for Student

One Level DFD for TPO



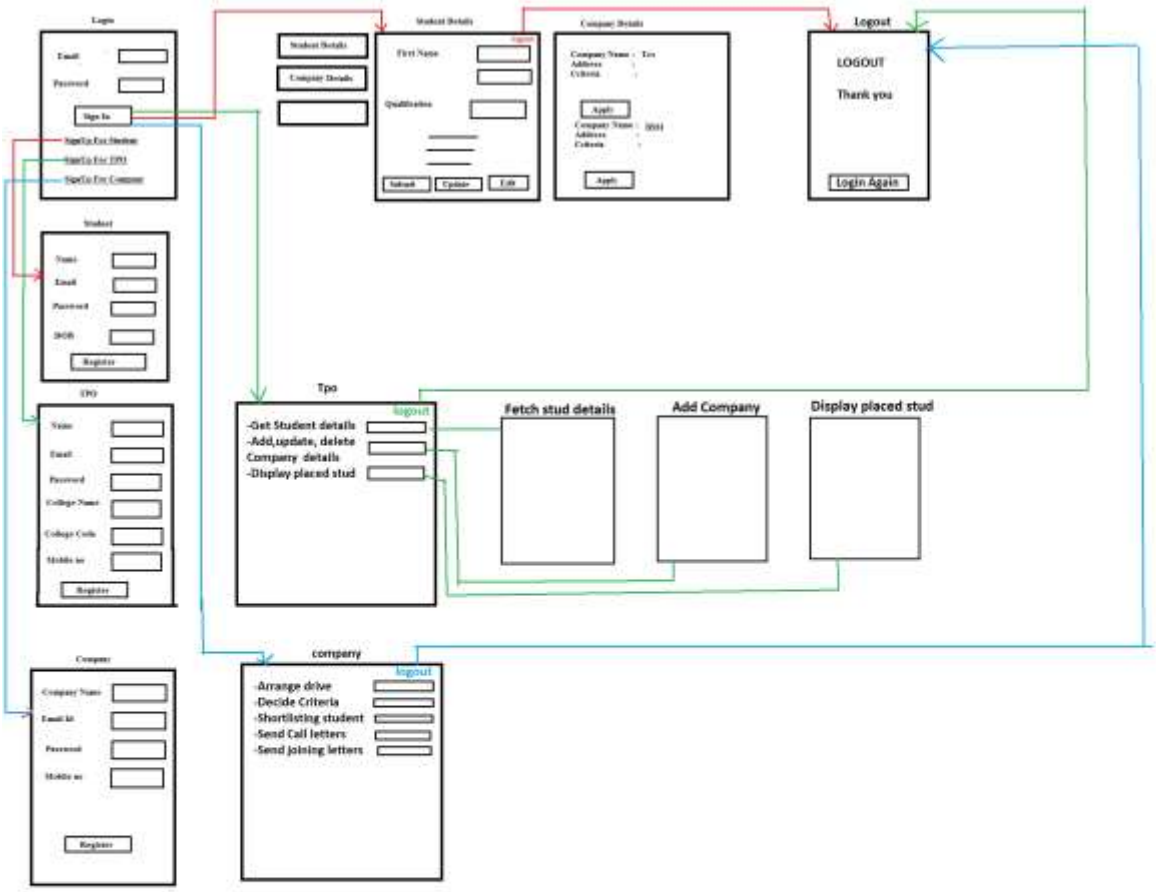
Level 1 DFD for TPO

One Level DFD for TPO



Level 1 DFD for Company

Data Flow Model-



Student
TPO
Company