DAYANANDA SAGAR UNIVERSITY

KUDLU GATE, BANGALORE – 560068

Bachelor of Technology

in

COMPUTER SCIENCE AND ENGINEERING

Major Project Phase-II Report

(PLACEMENT MANAGEMENT SYSTEM)

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DAYANANDA SAGAR UNIVERSITY,

(February -2022)

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School of Engineering

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CERTIFICATE

This is to certify that the Phase-II project work titled **"PLACEMENT MANAGEMENT SYSTEM"** is carried out by **Syed Musaddiq Hussainy (ENG18CS0293), Sujith T L (ENG18CS0290), Lava Kumar B R (ENG18CS0148), Mahesh L (ENG18CS156),** a bonafide students of Bachelor of Technology in Computer Science and Engineering at the School of Engineering, Dayananda Sagar University, Bangalore in partial fulfillment for the award of degree in Bachelor of Technology in Computer Science and Engineering, during the year **2021-2022**.

Mrs. Chhaya S Dule	**Dr Girisha G S**	**Dr. A Srinivas**
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Name of the Examiner **Signature of Examiner**

1.

2.

DECLARATION

We, **Syed Musaddiq Hussainy (ENG18CS0293), Sujith T L (ENG18CS0290), Lava Kumar B R (ENG18CS0148), Mahesh L (ENG18CS156),** are students of seventh semester B.Tech in **Computer Science and Engineering**, at School of Engineering, **Dayananda Sagar University**, hereby declare that the phase-II project titled **"Placement Management System"** has been carried out by us and submitted in partial fulfilment for the award of degree in **Bachelor of Technology in Computer Science and Engineering** during the academic year **2021-2022**.

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Signature of Students

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Name:

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ABSTRACT

The PLACEMENT MANAGEMENT SYSTEM is a web-based application developed in windows platform for the placement department of the college in order to provide the details of its students in a database for the Placement Officers to their process of recruitment provided with a proper login. 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. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. The system can used for college to manage the student information with regards to placement details. This project contains all the details of the students that can be viewed by all the users, but can be modified only by the student with an authorized service. The students can update their own information only.

Motivation:

Now a day's campus placements are conducted in various colleges. Various software and other sector companies are conducting campus selections for selecting merit candidates. When campus selections are conducted the students should provide their curriculum vitae to the concern officer for attending the campus interviews. This routine process is maintained manually, like maintenance of their resumes in papers. This can be automated by designing web based application.

Scope:

The scope of the project is very wide. Students can maintain their information. Notifications are sent to students email address about the placement status. Students can access information about recruitment. The following features are included in proposed application which help in making it easy to use, understand and modify it:

- Automation of Placement Procedure
- No Need to do Paper Work.
- To save the environment by using paper free work
- To increase the accuracy and efficiency of placement procedure
- Management of Student Data
- Analysis of overall Placement

Objectives:

The objective of developing the web based placement management system is to design a system to avoid existing placement problems with this system, the placement activities becomes more interactive, automated and effective. In order to avoid existing placement problem’s we are planning to design a system for online placement, so that placement activities becomes more interactive, automated and effective.

1. Create data base of student.
2. Save time & work load for staff.
3. Easy to access.
4. Avoid fake Entry.
5. Only eligible students get chance.
6. Improve accuracy in result.
7. User friendly interface.
8. To host the website on cloud.

LIST OF ABBREVATIONS

GPA	Grade Point Average
CGPA	Cumulative Grade point average
HTML	Hypertext Markup Language
CSS	Cascading Style
VS Code	Visual Studio Code
Node	Node.js
JS	Java Script
Ng serve	Angular Server
Database	Structured Query Language (SQL)
AWS	AWS Cloud

CHAPTER 1: INTRODUCTION

The project is aimed to develop an application for the “PLACEMENT MANAGEMENT SYSTEM” of the college. The system is an application that can be accessed and effectively used throughout the organization with proper login enabled. This system can be used as an application by Placement Officers in the college to manage the student’s information with regard to placement. Student logging should be able to upload their personal and educational information. This web application can help the placement officers to provide the details of upcoming companies. The students will be alerted via a notification. Once the recruitment process is completed, a list of placed students will be uploaded in the application by the administrator. It would be easy for the students to view the details of those who have been recruited. The number of students placed in a particular company can be viewed by students when required. If any changes is need to be made in the student details the student can make a request to the placement officer. This project will be helpful in faster management of the placement related activities in the college campus.

A large number of companies visit for recruitment in Campus every year and recruit eligible students from the campus. The whole recruitment process, right from announcement of company schedule to hiring students, the entire process is handled by Placement office with the help of few placement coordinators. The use of traditional technology and methodology for the entire process makes the process difficult for the students. During this process, the college students are dependent solely on the placement coordinators, who are prone to irregularities and mistakes. This proposed system enable students to prepare for aptitude test and interviews, there isn’t a one- stop platform where the students can prepare from. Making the whole placement process easier and lot more efficient.

The PLACEMENT MANAGEMENT SYSTEM is a web-based application developed in windows platform for the placement department of the college in order to provide the details of its students in a database for the Placement Officers to their process of recruitment provided with a proper login. 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. The system is an online application that can be accessed throughout the organization and outside as well with proper login provided. The system can used for college to manage the student information with regards to placement details. This project contains all the details of the students that can be viewed by all the users, but can be modified only by the student with an authorized service. The students can update their own information only.

CHAPTER 2: PROBLEM STATEMENT

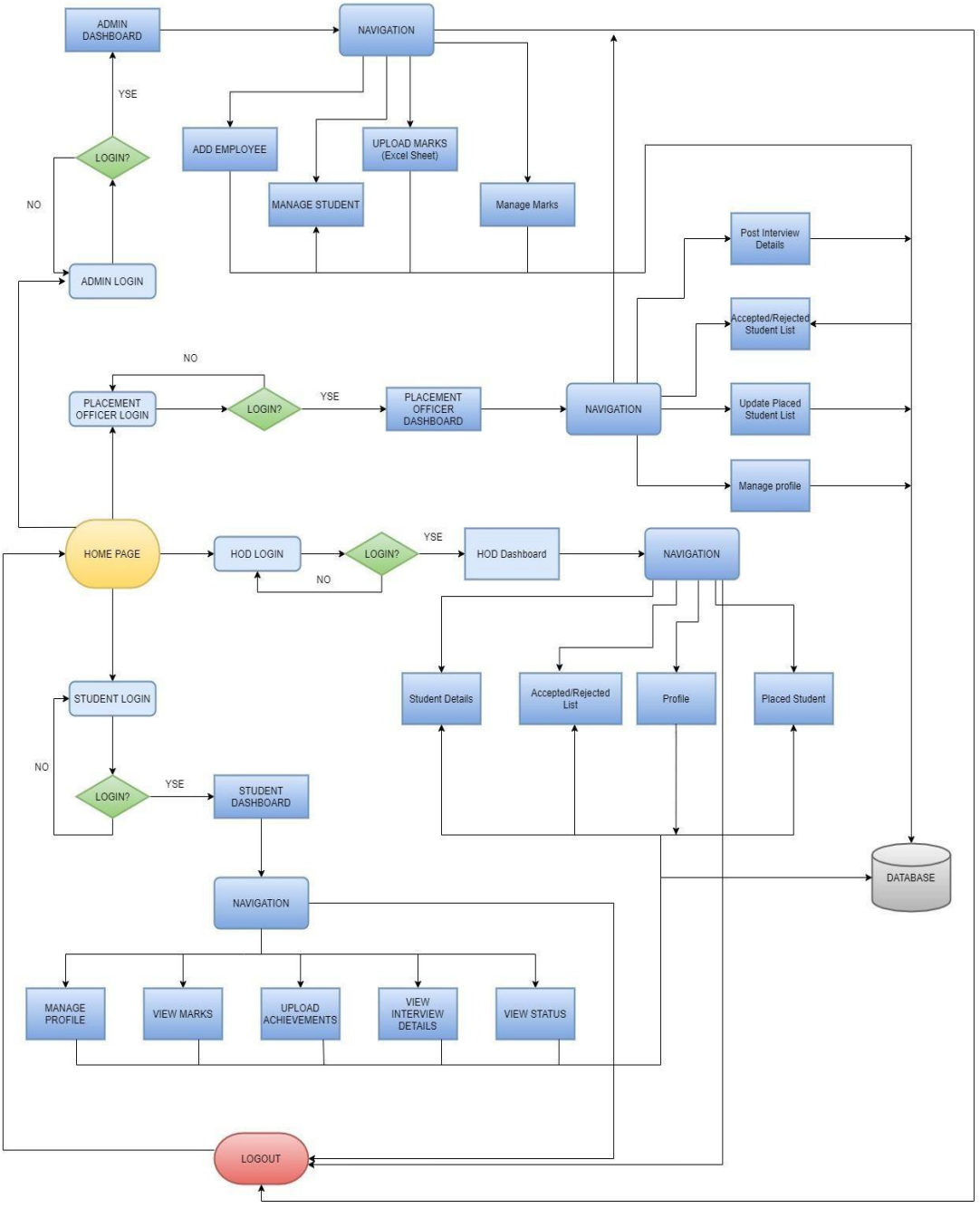
Now a day's campus placements are conducted in all colleges. Various software and other sector companies are conducting campus selections for selecting merit candidates. When campus selections are conducted the students should provide their curriculum vitae to the concern officer for attending the campus interviews. This routine process is maintained manually, like maintenance of their resumes in papers. This can be automated by designing software. To avoid maintaining a physical infrastructure we will be hosting the website on AWS Cloud.

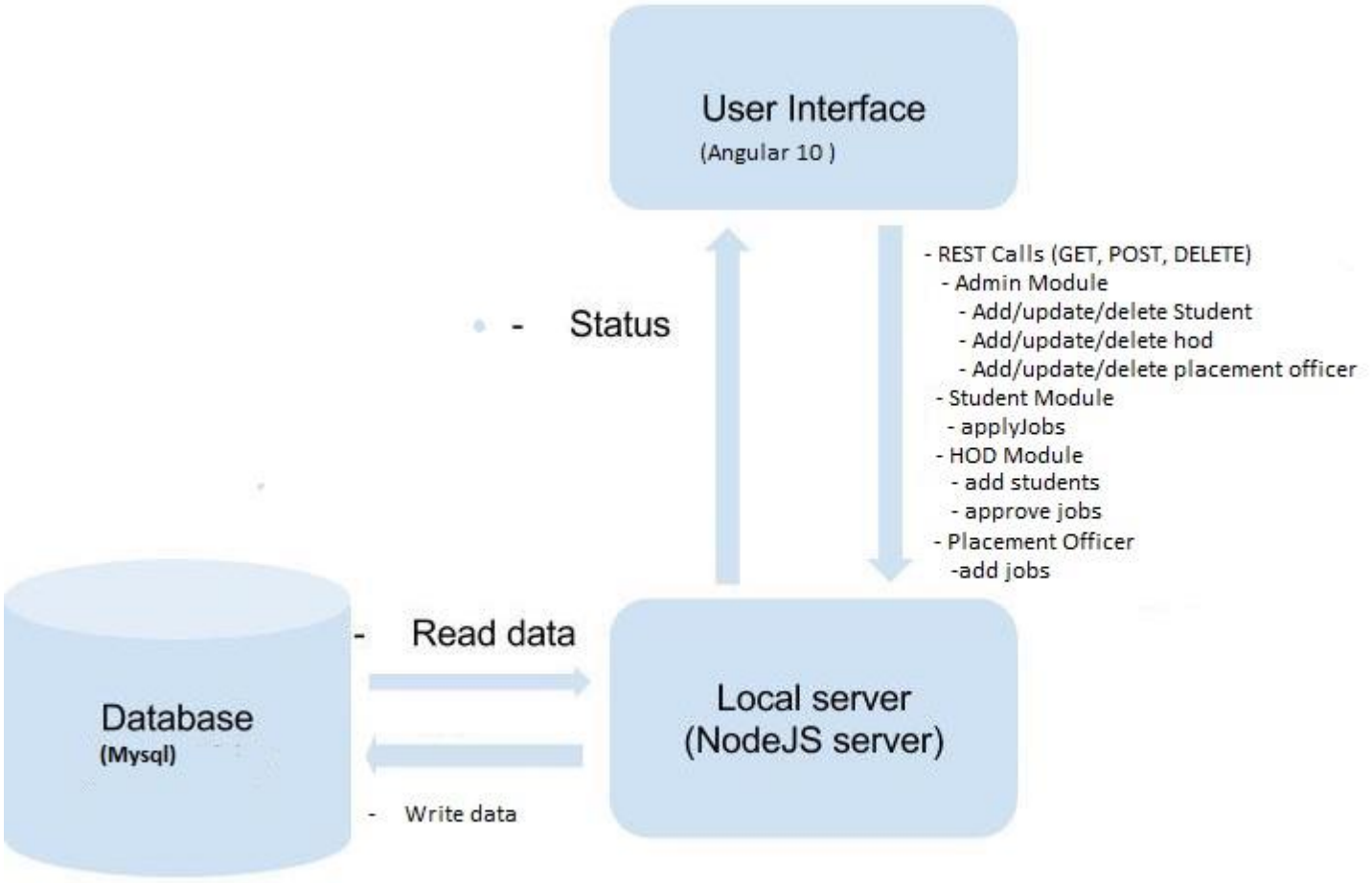
Placement Management System overcomes the disadvantages of Existing system and Provides advanced features and functionalities.

- Hierarchical data accessibility for
    1. Administrator
    2. HOD
    3. Placement Officer
    4. Student
- Maintenance of student data with data privacy and security.
- Eradication of Human Errors caused by manual Data entry.
- Digitalized way of segregating eligible students for placement drives.
- Transparency in communication across students and Placement Officer.
- Building CV/Resume on one click.
- Notification and Mailing system

- **System Architecture:**

The architectural configuration procedure is concerned with building up a fundamental basic system for a framework. It includes recognizing the real parts of the framework and interchanges between these segments. The beginning configuration procedure of recognizing these subsystems and building up a structure for subsystem control and correspondence is called construction modeling outline and the yield of this outline procedure is a portrayal of the product structural planning. The proposed architecture for this system is given below. It shows the way this system is designed and brief working of the system.




User Interface
(Angular 10)
- Status
- REST Calls (GET, POST, DELETE)
- Admin Module
- Add/update/delete Student
- Add/update/delete hod
- Add/update/delete placement officer
- Student Module
- applyJobs
- HOD Module
- add students
- approve jobs
- Placement Officer
-add jobs
- Read data
Database
(Mysql)
Local server
(NodeJS server)
- Write data

CHAPTER 3: LITERATURE SURVEY

Each and every process in the existing system is carried out manually. The college training and placement officer had to refer all the records of previous years for even minor details. This used to be tedious and more time consuming than it sounds. It becomes more difficult when the number of students increase each passing year. There are other limitations of existing system. In manual placement management system all the task is done by human interventions. Therefore there is maximum chance of errors. The files are not stored in hierarchical form. Thus searching for a particular becomes complex task. Updating certain information is difficult and ambiguous which may lead to data redundancy due to the chances of duplication of information. Not every students are aware of the placement updates by training and placement officer of the college, therefore they may lose an opportunity to grab a seat for job interview.

CHAPTER 4: PROJECT DESCRIPTION

4.1. PROPOSED DESIGN

Placement Management System provides the following modules:

- Student Module
- Admin Module
- Department Module
- Placement Module

Student Module:

This module contains creation of student input records about academic career from SSLC, HSC and all semester with facilities to modify the records and viewing changed records. The Student views the company details and verifies particular company details and provides valid details for registration. This Module consist of a login option. The functionalities provided in this module consist of:

- It helps the Student's to update their details anytime.
- The students would be able to view his own marks.
- The students would be able to upload his achievements and certificate will auto generated.
- The students would be able to view the company requirement.
- Students will be provided with a link to apply for the company if eligible.
- Students can see the complete profile of the company. Such as recruitment procedure history CTC offer and the working environment.

Admin Module:

The administrator plays an important role in the project. In this module admin will login through username and password, once he logins he will be directed to the dashboard where he gets the complete details of every student of different courses and departments. The admin can add student list using excel sheet. The admin can also view the complete list of students. Admin can add new employee to system. Admin can upload marks sheet in the form of excel sheet.

Department Module:

The Head of the department (HOD) of respective department can login to the system using username and password. Head of the Department can view the list of students details and he also can view the accepted and rejected list of students. Head of the Department can view the list of student placed in various companies from his department.

Placement Module:

The Placement Module has the authority to manage various functionalities of the system. This module will be handled by the Placement Officer who has the authority to:

- Add company details,
- Add interview details,
- Filter eligible candidates,
- Download accepted student list for placement,
- Download rejected student list,
- Update placed student list,
- Update company data.

The system consist of overall records of the students will be presented over the portal like the data of all placed and unplaced students which will reduce the bottleneck of confusion among students.

AWS Cloud:

Amazon Web Services (AWS) is the world's most comprehensive and broadly adopted cloud platform, offering over 200 fully featured services from data centers globally. The website will be deployed on AWS and connecting with MySQL database.

4.2. ASSUMPTION AND DEPENDENCIES

The proposed system offers good scope where Students can maintain their information. Notifications are sent to students email address about the placement status. Students can access information about recruitment. This project has a large scope as it has the following features which help in making it easy to use, understand and modify it:

- Automation of Placement Procedure
- No Need to do Paper Work
- To save the environment by using paper free work
- To increase the accuracy and efficiency of placement procedure
- Management of Student Data
- Analysis of overall Placement

CHAPTER 5: REQUIREMENTS

Hardware Requirements:

1. Processor - i3
2. RAM - 8 GB
3. Hard Disk - 256GB
4. Processor Speed - 2.4GHZ
5. System Type - 64-bit/32-bit Operating System.

Software Requirements:

Language	:	Node.js, HTML,CSS,Angular
Operating System	:	Windows 7 or higher
Tool	:	ng serve (Angular)
Database	:	MySQL
Cloud	:	Amazon Web Series (AWS)

CHAPTER 6: DELIVERABLES

Appendix A

Existing System:

All processes in existing system are handled manually. The existing used for placements was manual which needs human intervention. As all the work is done manually, there were a lot of work load on placement officer and it also increases the maximum chances of errors. This is so slow and time consuming. Due to increase in number of user's the process become more difficult. Due to manual intervention lot of work load on placement officers and chances of maximum error occurrences, slow and time consuming.

Drawbacks:

- Searching of eligible students is done manually by PO based on the company criteria.
- The records were stored in modified excel sheets hence sorting problem.
- The duplication of records was usual hence data redundancy.
- PO's have to collect all the information and Resumes of students and organize them manually and sort them according to various streams.

Proposed System:

The main purpose of proposed Placement portal is to provide easy maintenance of placement records to Placement Officer, HOD and Students that they can modify and access information so quickly. The system provides a better way to maintain student's information in the database, ensures data correctness and data integrity as well. The system also reduces the paperwork time and provides an efficient information flow between different system modules. Our system consists of different modules to interact with. Firstly, on opening the web portal you'll land on the main page of the portal which provides login page information. Secondly, there are four login given in the portal namely Placement Officer, Student, HOD and Admin. Each module has the same login page consisting of user id and password field for gaining access to the functionalities of the system. in the portal. Each module has the same login page that contain user id and password field, by entering data in these field the user can gain access to the functionalities.

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