

A
Project Report
on
Placement Management System
In partial fulfillment of Post Graduate course
in
Master of Science (Computer Applications) – I
(Semester -II)
CSA4212 Computer Applications Project - I
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(2020 – 2021)



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CERTIFICATE

This is to certify that the project entitled Placement Management System submitted by:

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in partial fulfillment for the requirement of the completion of M.Sc.(Computer Applications) [Semester-II]
CSA4212 Computer Applications Project – I, has been carried out by them satisfactorily during the
academic year 2020-2021.

Place: Pune

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- 2.

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Index

| Sr. No | Table of Content | Page No |
|----------|------------------------------------------|---------|
| 1 | Introduction | 1 |
| | 1.1 Existing System | 2 |
| | 1.2 Need of the System | 3 |
| | 1.3 Overview of the Project | 4 |
| 2 | Analysis | |
| | 2.1 Feasibility Study | 5 |
| | 2.1.1 Technical feasibility | 6 |
| | 2.1.2 Economical Feasibility | 7 |
| | 2.1.3 Operational feasibility | 8 |
| | 2.2 Hardware and Software requirement | 9 |
| 3 | Design | |
| | 3.1 Database Table designing | 10 |
| | 3.2 Data Flow Diagrams | 12 |
| | 3.3 Input / Output Screens | 14 |
| 4 | Testing | |
| | 4.1 Importance of testing | 16 |
| | 4.2 Types of testing | 17 |
| | 4.3 Test cases | 18 |
| 5 | Reports | 19 |
| 6 | Drawbacks and limitations | 20 |
| 7 | Future enhancement and conclusion | 21 |
| 8 | Bibliography | 22 |

1) Introduction

The purpose of the project “PLACEMENT MANAGEMENT SYSTEM”, the placement coordinator work makes the process slow and other problems. In order to avoid this web-based placement managed system is proposed, where the student information in the college with regard to placement head is managed efficiently. It intends to help fast in fast access procedures in placement related activities and ensures to maintain the details of the student. Student’s logging should be able to upload their personal and educational information. The key feature of this project is that it is one time registration enabled.

Placement head can filter the student’s profile as per their requirement. The company details will be provided by the administrator. The administrator plays an important role in our project. Our project provides the facility of maintaining the details of the students and gets the requested list of candidates for the company who would like to recruit the students based on given query.

1) Introduction

1.1) Existing Of System

The existing systems enables students to search through print media like poster advertisements, newspapers and visual media like television or company websites for internship opportunities. This is a tedious task as it takes a lot of time and energy to search for the right job position, learn about the position and about the company. Job search for proper match of skill set and salary is challenging. Students can also find jobs through job fairs where they must first make it possible to attend the fairs which might be sometimes impossible with their schedules and if they visit the fairs they must hand over paper printed resumes. The more the number of candidates the more the number of papers for the company which is a lot of manual effort. Again, students might get job offers through placement cells in respective colleges but getting hold of the right opportunity at the right time is always challenging. On the other hand, the same goes for employers who are looking for students who are best fitted for their job positions. They must constantly advertise, go to a lot of job fairs which still doesn't guarantee the best way to select from a large pool of students. Such conventional and outdated systems are replaced by several well featured national job search portals like Monster, Dice.com, Glassdoor, Indeed etc. All these job search and advertisement portals aims at e-recruitment by providing several simple and useful features to jobseekers and employers making job search and students selection a much time saving and easier process

1) Introduction

1.2) Need Of System

The main objective of this project is to manage the details of Placement, Company, College faculties. It manages the information about students, Registration. The Project is totally built at administrative end and thus only the administrator is guaranteed the access. The Purpose of the project is to build an application program to reduce the manual work for managing the Placement, Student, Company's Records. It tracks all the details about the company and students. To reduce unnecessary paperwork in maintaining student and company information.

1) Introduction

1.3) Overview Of System

- The main page has for the student, college placement head and the admin to login-in if registered, if not they can get themselves registered.
- Student can view the companies available for recruitment and communicate with admin if required.
- The admin is responsible for updating the companies list updating selected students database and deleting the student profile. [?]
- The placement head can view and search for a particular student details in the student database.
- System Provides up-to-date information about the placement activities happening in the college.

2) Analysis

2.1) Feasibility Study

Preliminary investigation examine project feasibility, the likelihood the system will be useful to the organization. The main objective of the feasibility study is to test the Technical, Operational and Economical feasibility for adding new modules and debugging old running system. All system is feasible if they are unlimited resources and infinite time. There are aspects in the feasibility study portion of the preliminary investigation:

- Technical Feasibility
- Operation Feasibility
- Economical Feasibility

2) Analysis

2.1.1) Technical Feasiblity

The technical issue usually raised during the feasibility stage of the investigation includes the following:

- Does the necessary technology exist to do what is suggested?
- Do the proposed equipment have the technical capacity to hold the data required to use the new system?
- Will the proposed system provide adequate response to inquiries, regardless of the number or location of users?
- Can the system be upgraded if developed?
- Are there technical guarantees of accuracy, reliability, ease of access and data security?

The system will be efficient in its performance could be the speed and memory require for the system. The platform will be portable enough to work on any of the platforms and operating environment. System ensures accuracy reliability and easy to data retrieve.

2) Analysis

2.1.2) Operational Feasibility

Proposed projects are beneficial only if they can be turned out into information system. That will meet the organization's operating requirements. Operational feasibility aspects of the project are to be taken as an important part of the project implementation. Some of the important issues raised are to test the operational feasibility of a project includes the following: -

- Is there sufficient support for the management from the users?
- Will the system be used and work properly if it is being developed and implemented?
- Will there be any resistance from the user that will undermine the possible application benefits?

System will be easy to use. The look and feel of the system will be user friendly and be easily understood by the user. It will have proper engineering techniques. Buttons and shortcuts will be created for various operations.

2) Analysis

2.1.3) Economical Feasiblity

A system can be developed technically and that will be used if installed must still be a good investment for the organization. In the economical feasibility, the development cost in creating the system is evaluated against the ultimate benefit derived from the new systems. Financial benefits must equal or exceed the costs.

This feasibility is mainly concurrent with cost benefit analysis of proposed system. Financial benefits must be equal or should not exceeds the original cost. System could be modified at minimum cost.

2) Analysis

2.2 Hardware And Software Requirements

Requirement analysis produces in the specification of software operational characteristics: It indicates software interface with other system element.

It establishes constraint that should accomplish.

- Requirement analysis provides information, function & behavior that can be translated into architectural interface & component level design.
- This translation is performed during construction of analysis model.
- It includes:
 - It decides and adds all important function which is maintained in the requirements.
 - It decides and adds important function which is not maintained in the requirements, but it is essential to build.

It defines all interfaces of the software to be developed.

1. HARDWARE REQUIREMENTS

Processor : Pentium III or Any Advanced Processor

RAM : 256 MB or More

Hard disk : 40 GB or more

2. SOFTWARE REQUIREMENTS

Operating System :Linux,Windows or Further. Languages : HTML, PHP

Front End : HTML, Bootstrap5.

Backend : PHP , Database

3) Design

3.1) Database Table Design

Table Name - Admin

| Field | Type | NULL | KEY | DEFAULT | EXTRA |
|--------|-------------|------|-------------|---------|-------|
| aid | int(11) | NO | Primary_key | NULL | |
| auname | varchar(11) | NO | | NULL | |
| apass | varchar(10) | NO | | NULL | |

Table Name – Add Company

| Field | Type | NULL | KEY | DEFAULT | EXTRA |
|--------------|---------------|------|------------|---------|----------------|
| cno | int(30) | NO | Primay_key | NULL | auto_increment |
| Company_name | varchar(10) | YES | | NULL | |
| criteri | varchar(30) | YES | | NULL | |
| Last_date | date | YES | | NULL | |
| Discription | varchar(5000) | YES | | NULL | |

Table – Placement_head

| Field | Type | NULL | KEY | DEFAULT | EXTRA |
|---------|-------------|------|------------|---------|-------|
| Head_id | int(11) | NO | Primay_key | NULL | |
| Uname | varchar(10) | NO | Unique_key | NULL | |
| pass | varchar(30) | YES | | NULL | |

Table Name – Send_Query

| Field | Type | NULL | KEY | DEFAULT | EXTRA |
|-----------|-------------|------|-------------|---------|----------------|
| Fid | int(11) | NO | Primay_key | NULL | auto_increment |
| sid | int(11) | NO | Foreign_key | NULL | |
| SendQuery | varchar(50) | NO | | NULL | |
| Querydate | date | NO | | NULL | |

3) Design

3.1) Database Table Design

Table Name – Student_Reg

| Field | Type | NULL | KEY | DEFAULT | EXTRA |
|---------------|-------------|------|-------------|---------|----------------|
| sid | int(11) | NO | Primary_key | NULL | auto_increment |
| StudentName | varchar(11) | NO | | NULL | |
| Address | varchar(10) | NO | | NULL | |
| City | varchar(10) | NO | | NULL | |
| Email | varchar(10) | NO | | NULL | |
| Mobile | Bigint(20) | NO | | NULL | |
| Qualification | varchar(10) | NO | | NULL | |
| Gender | varchar(10) | YES | | NULL | |
| BirthDate | date | NO | | NULL | |
| UserName | varchar(10) | NO | Unique_key | NULL | |
| PRN_NO | int(11) | YES | Unique_key | NULL | |
| Pass | varchar(10) | YES | | NULL | |
| Status | enum | YES | | NULL | |

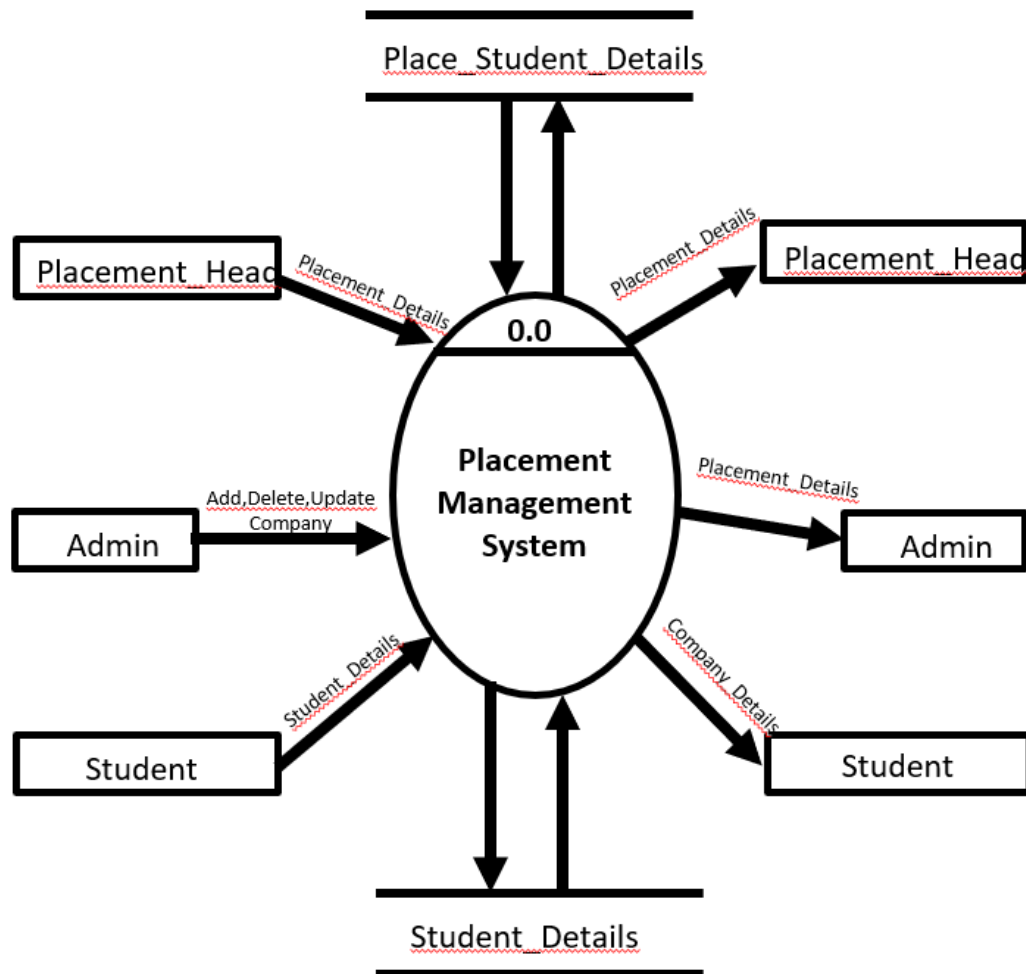
Table Name – application

| Field | Type | NULL | KEY | DEFAULT | EXTRA |
|----------------|-------------|------|-------------|---------|----------------|
| apply_id | int(11) | NO | Primary_key | NULL | auto_increment |
| Sid | int(11) | NO | Foreign_key | NULL | |
| Cno | int(11) | NO | Foreign_key | NULL | |
| Location | varchar(10) | NO | | NULL | |
| Experience | varchar(10) | NO | | NULL | |
| SSCPer | varchar(10) | NO | | NULL | |
| HSCPer | varchar(10) | NO | | NULL | |
| FYBSCPer_grade | varchar(10) | NO | | NULL | |
| SYBCSPer_grade | varchar(10) | NO | | NULL | |
| TYBCSPer_grade | varchar(10) | NO | | NULL | |
| MSC_grade | varchar(10) | NO | | NULL | |
| AnyGap | varchar(10) | NO | | NULL | |
| Gap_reason | Enum | NO | | NULL | |
| ProjectDetails | varchar(10) | NO | | NULL | |
| Resume | varchar(10) | NO | | NULL | |

3) Design

3.2) Dataflow Diagrams

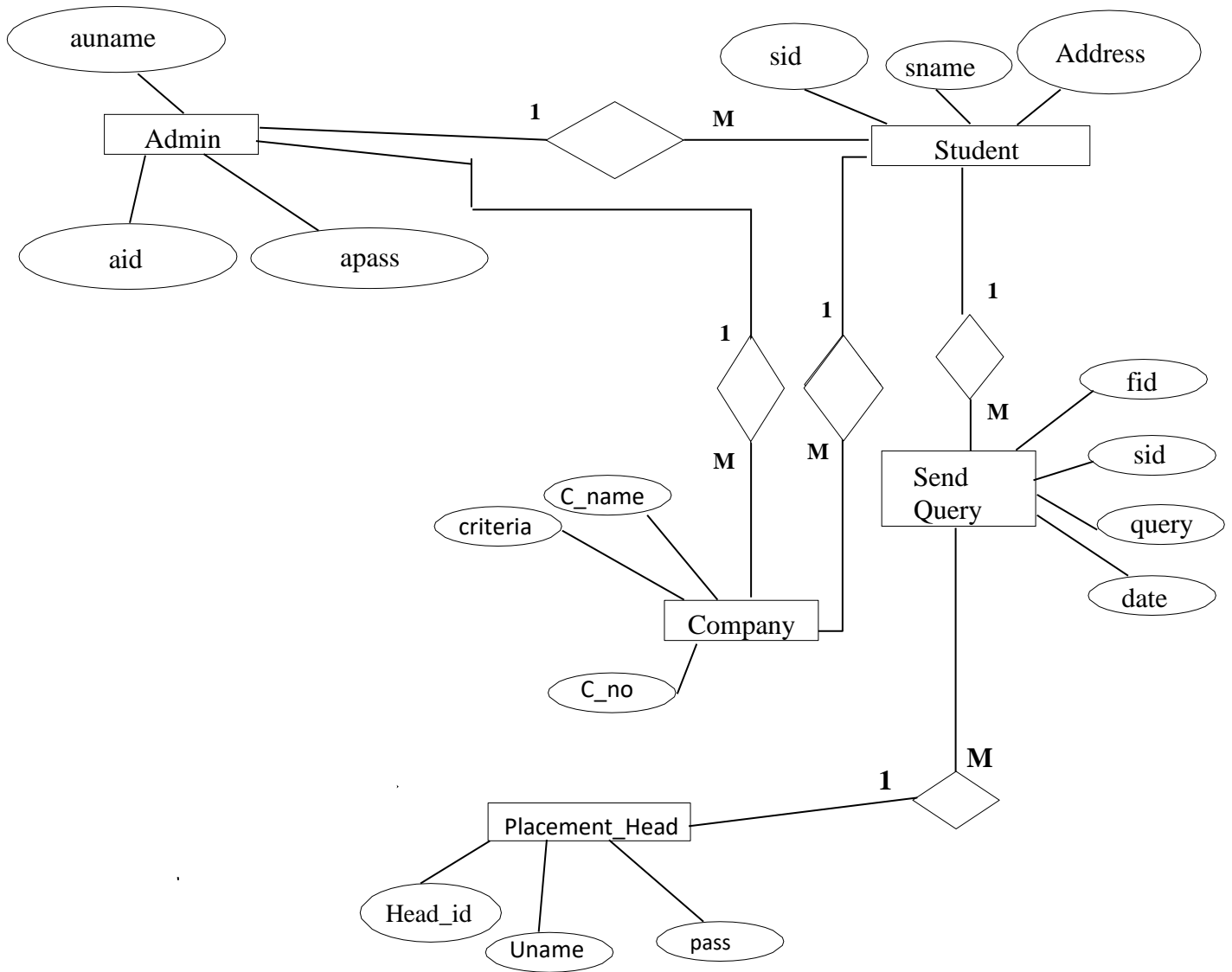
3.2.1) Level 1 DFD



3) Design

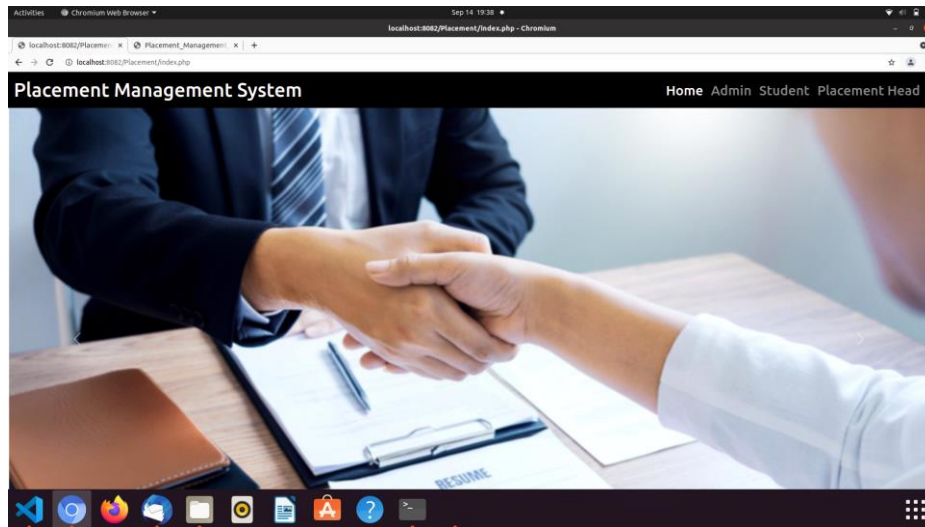
3.2) Dataflow Diagrams

3.2.2) E-R Diagram

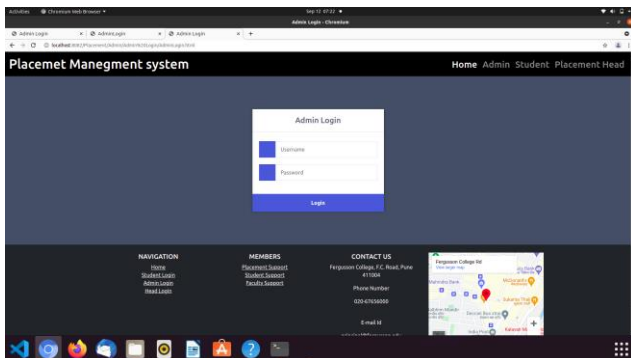


3. 3) Input / Output Screens

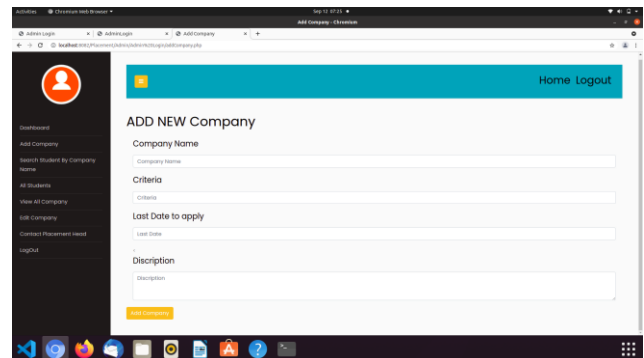
Home Page



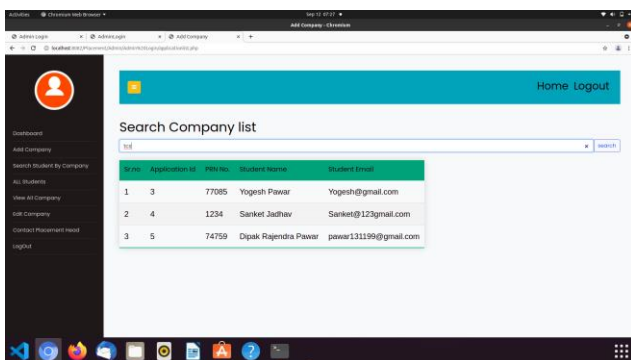
Admin Login Page



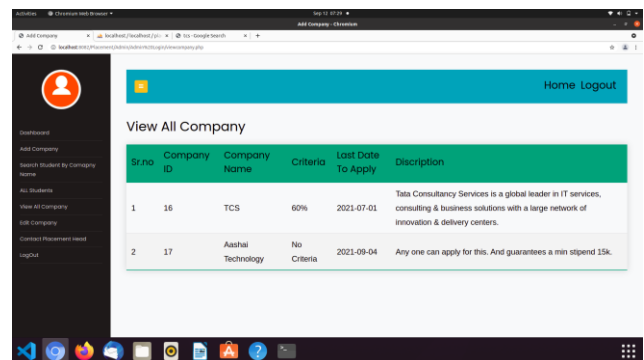
Add Company Page



Search Student Page



View Company Page



3. 3) Input / Output Screens

Student Login Page

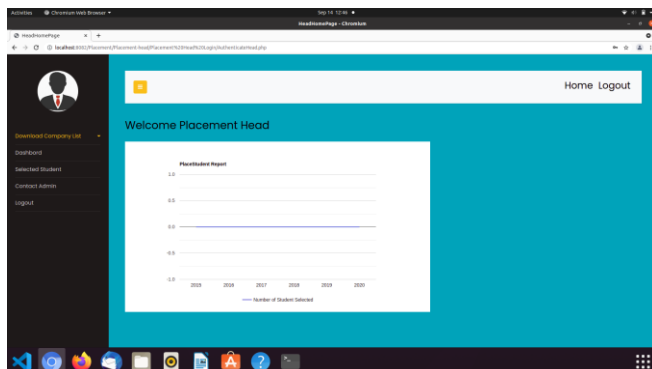
Student Profile Details Page

Student New Company Page

| Sr.no | Company Name | Criteria | Last Date To Apply | Description | Operation |
|-------|-------------------|-------------|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------|
| 1 | wipro | 60 | 2020-09-01 | wipro with 60% criteria | 2020 |
| 2 | TCS | 60% | 2021-07-06 | Tata Consultancy Services is a global leader in IT services, consulting & business solutions with a large network of innovation & delivery centers. | 2020 |
| 3 | Aashai Technology | No Criteria | 2021-09-04 | Any one can apply for this. And guarantees a min stipend 15k. | 2020 |

Placement Head Login Page

Placement Head Home Page



Selected Student Details Page

| Sr.no | Student ID | Student Name | Email | Mobile No. |
|-------|------------|--------------|------------------|------------|
| 1 | 15 | Yogesh Pawar | Yogesh@gmail.com | 9284301404 |

4) Testing

4.1) Importance of Testing

In the software development life cycle, after the requirement analysis, feasibility study, design and coding phase, one of the phase of utmost importance is the testing phase. In this phase, we get to see if the expected and final outcomes are same with all the required specifications being maintained as per the requirement. This is the debugging phase of the application on its entirety and not simple debugging of few lines of code on the IDE. This phase starts with the smallest unit of a code through Unit Testing and travels a long way till it ends with User Acceptance Testing. For industrial applications, testing is performed through highly automated tools like Docker for NodeJS applications, but such automated testing tools are out of scope for this project. This testing phase helps in finding bugs which can be at the code level, system level, environment level, then fixing those bugs, then retesting the same functionalities to check the new changes are compatible with others and then at the end of many testing strategies the product is delegated to corresponding authority for release. Testing at the application/code level is performed by writing test cases. To err is human – we all know. When code is nothing but human typed language with a sense of grammar and context understandable by the OS and computer scientists, there can always exist errors. We can eliminate these errors by thinking about corner cases or scenarios that might never happen but if happens, our application is strong enough to handle them. Testing the application with every possible scenario which it can/cannot handle and still our application staying steadfast is what we target for.

4) Testing

4.2) Types of Testing

- **Unit Testing** – Testing an application to its smallest unit is called Unit Testing. Again, testing each module of an application which numerous test cases and checking validations against unforeseen scenarios is what unit testing is all about. Once a bug is detected, that is recorded in the bug tracker, a ticket is raised, this bug is fixed, and again new unit test cases are written to perform unit testing over the debugged piece of code.
- **Integration Testing** – Once each individual part of the system is tested, every smallest unit is tested, different modules of the system are now integrated together and tested. Whether the integration works or whether a part of the system that is functional individually starts failing when integrated with another part is what integration testing is all about.
- **System Testing** – That an integrated system meets all its specifications and requirements is decided by system Testing.
- **Regression Testing** – Once the system is debugged, it is tested again to see if it is compatible with the changes made and compatible with any changes made to the environment.
- **Load Testing** – Testing that the system can take as much load as it is supposed to take and testing how much load it can take and to what extent it can exceed its limit and where it breaks.
- **Performance Testing** - Testing how the system performs like slow/fast and how it performs under certain workload.

4) Testing

4.3) Test Case

Test Performed

| MODULE | TEST CASE | EXPECTED RESULT | OBSERVED RESULT |
|-----------------------|-----------------------------------------|-------------------------------------------------------|----------------------------|
| Student | New candidate tries to login | User Name Does not exist | PASS |
| Student | Registers to the portal | Registration Successfull | PASS |
| Admin | Click the view companies button | Results in viewing all the companies | PASS |
| Admin | Click on Add Company button | Results in showing add company details page | PASS |
| Placement Head | Click on selected student button | Results in showing list of selected students | PASS |
| Placement Head | Click on query button | Results in showing list of queries by students | PASS |

5) Reports

This Placement Management System has three basic modules namely Student, Admin and Placement Head. The major aspect of the project work has been a proper clustering method and an efficient algorithm for the purpose of the same.

- Admin Module – First this module created as this is important part of project.
- Student Module – After admin module student module was created as it includes Student Registration form , Apply form,etc.
- Placement Head Module – This is last module of our project it just includes list of students got selected in company.

6) Limitations

- Input should be given carefully.
- Limited for small job portal purpose.
- Monthly reports of selected students can be stored individually.

6) Drawbacks

- System works in online mode only
- No direct communication with company , placement head and admin.

7) Future Enhancement

- Our project has a big scope to do.
- Students can access previous information about placement.
- We can store information of all students
- Various companies can access their information.
- Notifications are sent to students about the companies.
- Convert the system into online using various web systems.
- Also some areas of the project which are not converted can be made possible.

7) Conclusion

The introduction, problem definition of the project has been completed successfully to college Web based placement management system by maintaining the student details related to placement in an efficient manner.

8) Bibliography

BOOKS

- Programming PHP by O'Reilly Publication
- Mastering PHP by BPB Publication
- PHP For Beginners by SPD Publication

WEBSITES

- www.youtube.com
- www.php.net.in
- www.w3schools.com