AP
ijpam.eu

E-PLACEMENT MANAGEMENT

[1*]DR.ANGEL LATHA MARY.S, Professor, Karpagam College of Engineering, Coimbatore,
Tamilnadu, India.
xavierangellatha@gmail.com
MYTHILI M, AISHWARYA R, SHENBAGAM P, SANDHIYA C

ABSTRACT:

The E- PLACEMENT 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 companies 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 (read only), but can be modified only by the student with an authorized service. The students can update their own information only.

Students can search for the material required for the selection process for placement papers. Events happening in the college and the achievements of the student's i.e. selected students' details can be viewed by all the users.So, our project provides a facility of maintaining the details of the students, and gets the requested list of candidates for the companies who would like to recruit the people based on a given query.

INTRODUCTION :

E- PLACEMENT is a total management and informative system, which provides the up-to date information of all the students in a particular college. E Placement helps the colleges to overcome the difficulty in keeping records of hundreds and thousands of students and searching for a student eligible for recruitment criteria from the whole thing. It helps in effective and timely utilization of the hardware and the software resources.

The administrator will create the users and the users will use the accounts created by administrator. When the user enters into his respective page he can update his details, and the details are to be approved by the administrator.
All the users have some common services like changing password, updating details, searching for details, checking the details, mailing to administrator, and reading the material uploaded by admin if the user is a student. Administrator has the services to add events and achievements and he can reply to the mails sent by users. He can upload materials, search for student details, and he has the right to approve the students.
This package is developed in windows platform. The programming language used is JSP with three tier architecture. Oracle is used as backend database for the details to be stored.

E- PLACEMENTis atotal management and informative system, which provides the up-to date information of all the students in a particular college. E PLACEMENThelps the colleges to overcome the difficulty in keeping records of hundreds and thousands of students and

searching for a student eligible for recruitment criteria from the whole thing. It helps in effective and timely utilization of the hardware and the software resources.

SYSTEM ANALYSIS

Problem Definition :

Now a day's campus placement 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.

Existing System And Its Drawbacks:

The earlier system is not computerized. All transactions in the system are done manually maintaining records. To make this laborious job simple the clients have to computerize the system. The management and all the departments that have been carrying out this job using manually makes the job more complicated and tedious most of the times. So, the best way is computerize computerization of the current environment. For example, in the earlier system placement officer has to collect student details for placements. Approving those student details takes lot of time. Placement officer and students have to consult each other directly if any information is needed. If any new company come for placements, placement officer and his staff has to search the student details and they have to find the eligible candidates for that particular company placement. Here searching for eligible candidates takes lots of time. And some times some candidates' details may be missed.

Drawbacks Of Existing System:

- It takes so much time for a placement officer to collect students' details and approving the details provided by them.
- Poor communication between students and placement officer, so here intimating about new placements is a hard task.
- Students may not know about company details. Here also poor   communication provides a problem.
- Candidate may not get required information if concerned TPO is not at the desk.

Proposed System And Its Merits:

The proposed system is fully computerized, which removes all the drawbacks of existing system. Proposed system is an online application that can be accessed throughout the organization and outside as well with proper login provided.

Students logging should be able to upload their information in the form of a CV.The administrator will create the users and the users will use the accounts created by administrator. When the user entered into his respective page he has to update his details. And the details are to be approved by the administrator .

 All the users have some common services like changing password, updating details, searching for details, checking the details, mailing to administrator, and reading the material uploaded by admin if the user is a student. Administrator has to do the services like adding events, achievements and he can reply to the mails sent by users. He can upload materials, search for student details, and he has the right to approve the students.

Advantages Of The Proposed System:

- Placement officer can easily collect student' details, and approve the   details provided by them.

- As it is an online application, communication with placement officer is   easy to students and recruiters, so here intimating about new placements very easy task.

- Here recruiters can also search for the details provided by students on the basis of their percentage.

- Placement officer can send required materials used for placements preparation to students. With this option preparation for placements becomes easy.

FEASIBILITY STUDY:

The purpose of the feasibility study is not to solve the problem, but to determine the problem is worth solving. This helps to decide whether to proceed with the problem or not.

 It involves the analysis of the problem & collection of all relevant information relating to the product such as items that would be input to the system, processing required to carried those data, the output data required to be produced by the system as well the various constraints on thebehavior of the system.

 The feasibility study concentrates on the following, such as Technical Feasibility, Economic Feasibility,Operational Feasibility.

1. TECHNICAL FEASIBILITY:

It is technically feasible to design the project as; the entire modules described in the modules description can be created using Front-End interaction HTML and back end database oracle.

Advantages of ORACLE

- 1.Oracle is a large database and several functional programs.

- 2. Oracle is a pure database software. In our project we maintain database, so we selected Oracle

- 3. It provides a set of functional programs that user can use as tools to build structures and perform tasks.

- 4. Oracle is highly sucured software.

- 5. Oracle contains many tools like SQL,PL/SQL .

- 6. SQL is a unified non-procedural language.

2. ECONOMIC FEASIBILITY

The economic feasibility study evaluate the cost software development against the ultimate income or benefits get from the developed system. There must be scope for profit after the success completion of the project.

3.OPERATIONAL FEASIBILITY

Operational feasibility study tests the operational scope of the software to be developed. The proposed software must have high operational feasibility.The usability will be high.

REQUIREMENTS ANALYSIS:

Requirements analysis is the process of defining what the user requires from the system and defining the requirements clearly and in an unambiguous state. The outcome of the requirement analysis is the software developing activities. Thus it deals with understanding the problem goals and constraints. This specification part mainly focuses on what had been found during analysis.A requirement is a relatively short and concise piece of information, expressed as a fact. It can be written as a sentence or can be expressed using some kind of diagram.Requirements are divided into two major types functional and non-functional.

Functional requirements:

Following is a list of functionalities of the system. More functionality that you find appropriate can be added to this list. And, in places where the description of functionality is not adequate, you can make appropriate assumptions and proceed.

- What inputs the system should accept.

- What outputs the system should produce.

- What data the system must store.

Introduction:

E- PLACEMENTis a total management and informative system, which provides the up-to date information of all the students in a particular college. E-PLACEMENT helps the colleges to overcome the difficulty in keeping records of hundreds and thousands of students and searching for a student eligible for recruitment criteria from the whole thing. It helps in effective and timely utilization of the hardware and the software resources.

Inputs:

The Administrator handles the entire system. The role of administrator in the system is to upload the information like students information, job information, company information etc.,

- Login to the system through the first page of the application

- Changing the password after logging into the system if required.

Requirement Specification:

Complete specification of the system (with appropriate assumptions) constitutes this milestone. A document detailing the same should be written and a presentation on that be made.

Database Creation:

A database should be created, as per the rules for the purpose of maintenance of the records.

Implementation Of The Front-End:

Implementation of the main screen giving the login, screen that follows the login giving various options, screens for each of the options are provided

Integrating The Front-End With The Database:

The front-end developed in the earlier milestone will now be able to update the database. Other features like mail notification etc should be functional at this stage. In short, the system should be ready for integration testing.

Processing:

As the system is information-oriented project and there are no certain calculations only database storage and view is provided.

STORAGE DATA: In this we store all the details of students, company information and recruiter information.

Outputs:The project provides information required by organization.

Non-Functional Requirements:

Non-functional requirements are the constraints that must be adhered during development. They limit what resources can be used and set bounds on aspects of the software's quality.

User Interfaces:

The User Interface is a GUI developed using HTML

Software Interfaces:

The main processing is done on the server side using apache tomcat and for the programming environment java is used, for backend database oracle is used.

Performance Requirements:

The product performance needs to be assessed on certain characteristics. Input: The inputs that the student gives i.e., user id and password is very important.

PROJECT MODULES:

There are mainly 3 modules in the project "Training and Placement Cell"

They are:

- Student module.
- Administrator module.
- Recruiter module.

➢ Student module consists of services like:

- o Update details: This service provides the user to update their details.
- o Check details: This service provides the user to check his details.
- o Material: This service provides the user to check for materials uploaded by administrator
- o Mailing: This service provides the user to mail to administrator.
- o Change password: This service enables the users to change password

➢ Administrator module consists of services like:

- o Update details: Allows administrator to update his (college) details.
- o Update statistics: Allows administrator to insert/update statistics like no. Of students selected etc.
- o Add student: Allows administrator to add a student to database.
- o Add recruiter: Allows administrator to add a recruiter to database.
- o Add event: Allows administrator to add/insert an event.
- o Approve: Allows administrator to verify the details of the student, and to Approve him to the application if they are correct.
- o Student details: Allows administrator to search for student information According to eligibility criteria for recruitment process.
- o Upload material: Allows administrator to upload material for students.
- o Mailing: Allows administrator to reply for the mails sent by users.
- o Change password: This service enables the administrator to change password.

➢ Recruiter module consists of services like:

- o Update details: This service provides the user to update their details.

o   College details: This service provides the user to check the college details.

o   Student details: This service allows recruiter to search for student information according to eligibility criteria for recruitment process.

o   Mailing: This service provides the user to mail to administrator.

o   Change password: This service enables the users to change password.

SOFTWARE TESTING TECHNIQUES :

Software testing is a critical element of software quality assurance and represents the ultimate review of specification, designing and coding.

Testing Objectives:

1.   Testing is process of executing a program with the intent of finding an error.

2.   A good test case design is one that has a probability of finding an as yet undiscovered error.

3.   A successful test is one that uncovers an as yet undiscovered error.

These above objectives imply a dramatic change in view port.

Testing cannot show the absence of defects, it can only show that software errors are present.

Test Case Design:

Any engineering product can be tested in one of two ways:

White Box Testing: This testing is also called as glass box testing. In this testing, by knowing the specified function that a product has been designed to perform test can be conducted that demonstrates each function is fully operation at the same time searching for errors in each function. It is a test case design method that uses the control structure of the procedural design to derive test cases. Basis path testing is a white box testing.

Basis Path Testing:

i.   Flow graph notation

ii.   Cyclomatic Complexity

iii.   Deriving test cases

iv.   Graph matrices

Control Structure Testing:

      i.   Condition testing

      ii.   Data flow testing

      iii.   Loop testing

Black Box Testing: In this testing by knowing the internal operation of a product, tests can be conducted to ensure that " all gears mesh", that is the internal operation performs according to specification and all internal components have been adequately exercised. It fundamentally focuses on the functional requirements of the software.

The steps involved in black box test case design are:

      i.   Graph based testing methods

      ii.   Equivalence partitioning

      iii.   Boundary value analysis

      iv.   Comparison testing

Software TestingStrategies :

A software testing strategy provides a road map for the software developer. Testing is a set of activities that can be planned in advance and conducted systematically. For this reason a template for software testing a set of steps into which we can place specific test case design methods should be defined for software engineering process. Any software testing strategy should have the following characteristics:

1. Testing begins at the module level and works "outward" toward the integration of the entire computer based system.
2. Different testing techniques are appropriate at different points in time.
3. The developer of the software and an independent test group conducts testing.
4. Testing and Debugging are different activities but debugging must be accommodated in any testing strategy.

Unit Testing: Unit testing focuses verification efforts in smallest unit of software design (module).

     1. Unit test considerations

     2. Unit test procedures

Integration Testing: Integration testing is a systematic technique for constructing the program structure while conducting tests to uncover errors associated with interfacing. There are two types of integration testing:

1. Top-Down Integration: Top down integration is an incremental approach to construction of program structures. Modules are integrated by moving down wards throw the control hierarchy beginning with the main control module.

2. Bottom-Up Integration: Bottom up integration as its name implies, begins construction and testing with automatic modules.

3. Regression Testing: In this contest of an integration test strategy, regression testing is the re execution of some subset of test that have already been conducted to ensure that changes have not propagate unintended side effects.

White Box Testing:

Basis Path Testing:

The Basis Path method enables the test case designer to derive a logical complexity measure of a procedural design and use this measure as a guide for defining a basis set of execution paths. Test cases derived to exercise the basis set are guaranteed to execute every statement in the program at least one time during testing.

CONCLUSION AND FUTURE SCOPE:

Presently we designed our Training & Placement Cell to be very User Friendly. Many features are enhanced to the present Training & Placement Cell. With this Training & Placement Cell most of the TPO's time is saved. The features of the system can be further enhanced in many ways.

The documentation that has enclosed can enable even a person with minimum knowledge to understand it well.

PERFORMANCE:

Training & Placement Cell which is developed in JSP technology is a versatile product and is platform independent. The features provided by the Training & Placement Cell makes it one of an interactive online platform for Placements.

Enhancements:

1.   Admin module to be developed, there by automating the services of the Admin resulting in continuous flow of records from database.

2.   Conducting mock tests is to be added.

REFERENCES:

1. Roger S Pressman, "Software Engineering – A Practitioner's approach" McGraw – Hill International Editions, Fifth Edition, 2001.

2. Henry F Korth, S. Sudharshan, "Database System Concepts" McGraw – Hill International Editions, Fourth Edition, 2002.

3. George Koch, Kevin Loney, "Oracle – The Complete Reference", Tata McGraw Hill, Third Edition, 2001.

4. Herbert Schildt& Patrick Naughton, "Java2 Complete Reference", Tmh 3/e, 1999.

5. James Jawroski, "Mastering Java Script", Tmh 3/e, 2000.

6. D.J. Abadi, "Data Management : Limitations and Opportunities," IEEE Data Eng. Bull., vol. 32, no. 1, pp. 3-12, Mar. 2009.

7. "Microsoft SQL Server",Solomon ,Rankins-SamsPublications,Second Edition