

PLACEMENT MANAGEMENT AND PREDICTION SYSTEM USING DATA MINING AND CLOUD TECHNOLOGY

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Abstract - Every year several firms come into faculties for recruiting students. To rising the success rate of a student getting placed the system is employed, additionally student get all the data relating to firms. This system is to facilitate students in college, institutes to register and communicate with the placement center. The user will simply get the information relating to the placement papers. In the system, Student needs to register and then directly login into the system. While registering the student ought to fill the personal info, educational info, skilled skills. The resume builder is created by using the information that fills while login. This resume will be downloaded by the student. Various Data Mining techniques are used for information retrieving and filtering. The system counsels the user the eligibility for the companies. Students can improve their technical and non-technical skills by giving various tests on this application. Improvement and chance of getting placed will be analyzed by the system.

Key Words: Cloud, Data Mining, Classification, Clustering, Placement Prediction, Fuzzy Logic, KNN algorithm, Business Intelligence

1. INTRODUCTION

The rise in the use of automated systems now is at the highest position thus many manual processes are automated. Since the automated system is demanded nowadays, educational infrastructures like colleges needed their manual system to function on the computing system. One such system which is of major importance is placement automation for campus recruitment and training the students for the companies. This project is aimed at developing an internet application for the training and placement department of the college. This application will often be used as an application for the Placement Officer of the college to manage the student's information with regards to placement. Students logging should be ready to upload their information within the sort of a resume. So, all the knowledge will store the small print of the students including their background information, educational qualification, personal details, academic marks, university marks and every one the knowledge regarding their resume.

Based on this information resume will be generated by a resume builder. The system will categorize the resume according to stream and send a notification to the student to know the venue, time and date of drive. Using this

application it will be easy for students to edit and update their information. Students can access previous information about placement. Alumni student can give their experience of the recruitment process. Students can give the aptitude, technical tests and instantly the result will display in graphical form. This result helps the student to know where the student needs improvement. According to that, the system will schedule the test and students can improve that.

This system is mainly focused on students and increased the opportunity of a student getting placed. It is also useful for TPO to maintain such a large amount of data at a single place and also it will consume less time.

2. PROBLEM STATEMENT

Nowadays, Student joins the school for better education also as a placement for his or her future. Therefore, the placement activity takes an important role in any colleges or institutes. In the existing system, all the transactions are done manually, and it takes much time to try and do it manually. It is difficult to maintain large data files and to manage them. Placement Officer has got to collect the knowledge of varied companies who want to recruit students and notify students from time to time about them. It's a time-consuming process of managing, updating and informing specific student for specific company requirements.

3. PURPOSE

A computer-based system is designed to boost the existing system. All the important information is passed to the students via Email by the placement officer. It's a user-friendly interface having quick authenticated access to documents. It provides the ability to maintain all the details of the students. It'll reduce the paperwork and utilize the utmost important capabilities of the Setup and organization.

The system will save time and money which is spending on making reports and collecting data from students manually. The facilities of the system can be accessed throughout the organization with proper login provided. This system is often used as an application for colleges to manage the student's information with regards to placement.

4. PROPOSED SYSTEM

The proposed system aims to overcome the drawback of the existing system and propose a system with additional features. This system can save time for a student as well as a TPO officer. In this system, security is incurred as the main key parameter.

Now a day, every student has its contact number and email id. We are using these two unique fields for authentication

and security purpose. User authentication is carried out using OTP send on the contact number and email id. The next step is to collect the personal, academic data of students and build a resume and download it for future use. Data submitted by the student is validated by the TPO officer by comparing it with uploaded documents by the student. Students can modify their details whenever they want as well as alerts are sent after the results of the university are declared to update the details.

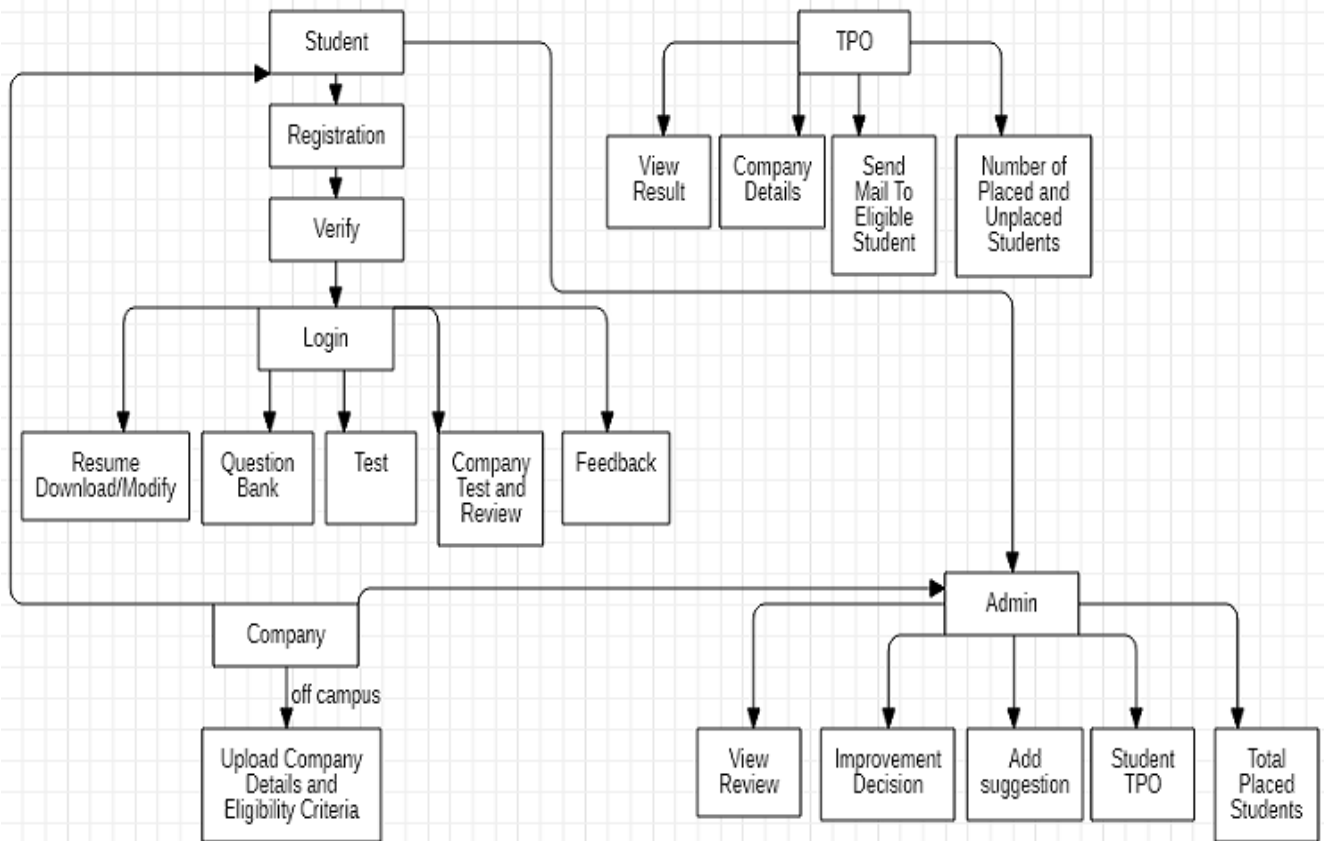


Fig -1: System Workflow

For aptitude preparation question bank with answers are present in the system. For improving technical skills and programming skills various video lectures and coding platform is integrated into the system. Students can also attempt to take a test to know their progress. In system business intelligence and data visualization technique are used to present the performance and improvement of every individual user.

TPO officers can access every student’s test performance. The data mining technique is used for revealing hidden trends and patterns which can help to improve student performance. Data analysis algorithm is used for predicting various things like student performance for placement drives, eligibility of several students to attend placement drives. Analyzed and extracted knowledge can be used to

improve student performance in weak areas to increase the probability of students getting placed with a good package.

The system will apply the eligibility criteria of the company and send the details of a drive as mail to only eligible students and lessens the workload of the TPO officer. Alumina of college can access the system to help the students by answering their queries’ as well as can provide the information about off-campus drives of companies they are working for. All the database of system is stored on a cloud as we know that sometimes data can grow exponentially to avoid system failure.

5. SYSTEM DESIGN

This system includes four different types of user modules. Each user can login to the system through the same login page by entering their login credentials.

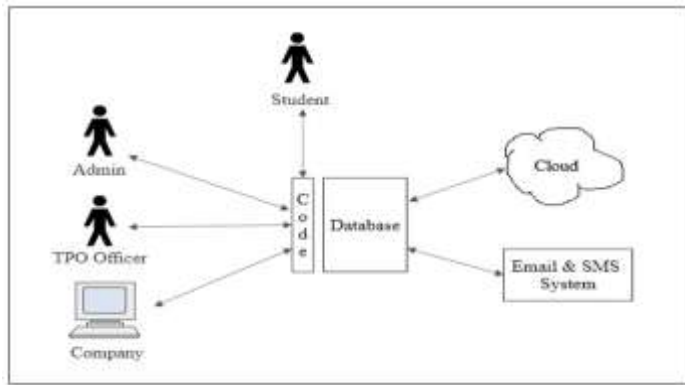


Fig -2: Block Diagram

- Student: Once a student gets registered on the system, the system will authenticate the student. After authentication student can directly login to the system using login credentials. Students can interact with training and placement officer. Also, the student can prepare for different companies by giving aptitude tests provided by the system. The system will analyze in which field student is lacking and give the tests to student according to results.
- TPO Officer: TPO officer will maintain communication with the different companies and schedule the events. Notification about placement drive dates will be sent to students who fit in the criteria.
- Company: Company can communicate with college and send the schedule and criteria about recruitment to the TPO officer.

6. TECHNOLOGY STACK

- PHP
- JavaScript
- JQuery
- HTML
- CSS
- MySQL

7. CONCLUSION

The system is trying to prepare the students for placement and it increases the chances of a student getting placed. The student is preparing as per the company selection criteria and prepare according to that criteria. The TPO had to validate the student. student can give tests and according to the evaluation score, the student needs to improve that section. We work to identify those students who needed special attention to reducing fail ratio and taking necessary action for their future career. It improves the student's performance; work has been analyzed and predicted using the algorithms Fuzzy logic and the KNN algorithm.

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