An Automated Interactive Job Service System
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Abstract— With the massive advancement in technology, the call for automation has marked its way in the top list of making processes simpler. Job allocation being one of the most important aspects in the universities requires much manual efforts in terms of managing the students database, inviting companies, checking for eligibility criteria and allowing only eligible students to attend job process. An automated interactive job service system overcomes all the problems and automates the entire process by providing features like advanced search querying system, automatically filtering out the students and allowing only eligible students to attend job process, share important materials concerned with acquiring knowledge, check past history of students placed in various companies, have generalized curriculum vitae format and send it to companies for review, check the placement trends and use it for analyzing where exactly the students are going wrong and forum for students to discuss about current technological trends and experience.

Keywords- CV, Forums, FAQs, WAMP, MySQL, PHP, JS, USN, Portal, HOD, Hashing, PO, Random Password Generation

I. INTRODUCTION

Today most of the work at the time of job process in college is done manually by ink and paper, which is very slow and consumes much efforts and time. As the strength of the students is increasing, an alternate way to the manual ink and paper is a must and interactive job service system achieves the purpose. This system deals with the ability to make the job processing faster and simpler by enabling easier and global access. The system has six types of users namely student, admin, company, executive staff, Placement Officer and department coordinators. Since the information is to be kept confidential, authorized access and encrypted password protected is provided for the security. At the beginning of the academic year, the system gives access to students based on their University Student Number (USN), a simple random password generation algorithm is used to generate one-time password for the students to login initially. The users can change the password once they log in. The password is encrypted using hashing technique.

The system ensures that the data once stored can be used for multiple access such as to view the details of a student, academic performance, keep track of approaching deadlines, reminders to remind about any specific event concerned with the job process, check eligibility criteria, check the trends using graphs and find out the students weaknesses. This system aims at overcoming all the disadvantages of the classic pen and paper method and results in much better outcome.

II. EXISTING SYSTEM STUDY

Fig. 1 Study of existing system
The existing system is as shown in the Fig 1. The disadvantages of the existing system is as follows:

- It requires much manpower.
  - Much efforts
  - Much cost
  - Hard to operate
  - Hard to maintain.
- Since, all the work is done in papers so it is very hard to locate a particular student record when it is required.
- Enough care has to be taken to ensure the information is not lost.
- Manual searching has to be done in order to find a record.
- Heavy workload on the administrator
  - No frequency asked question (FAQs) forum
  - Keep track of every company
  - Tough circulation of information
- Tough maintenance
  - Hard to locate records
  - Tougher access of previous records
  - Intense search required

### III. PROPOSED SYSTEM DESIGN

#### Data Flow Diagram

Data Flow diagram in Fig 2 depicts the types of users who can access the job portal. Once the user logs on, they are directed to different pages depending on the depending on the type of user. The rights to access to each user differ widely.

**Fig. 2 Data Flow Diagram of User types**

#### IV. TECHNOLOGY USED

The system was built using HTML (hypertext mark-up language), CSS (Cascading Style Sheets), JS (JavaScript), mySQL (my Structured Query Language), and php (Hypertext Preprocessor) as programming and scripting languages, XAMPP (any operating system, apache, mySQL, perl, php)

1. **HTML**
   - HTML is used in the front end of the website to display the contents such as the text, images, buttons, hyperlinks and to direct to another page. HTML is used widely in developing any website and serves as a best front end language to display various elements of the website.
2. **CSS**
   - CSS is also used in the front end of the system to style various elements in the system such as positioning, color, font size, font type, to make the system appear differently when the cursor is in hover mode or active mode. It basically serves as a tool to make the system look better and much more interactive.
3. **JavaScript**
   - JS is the front end scripting language which performs various validation checks, displays current time, date and calendar, hide few elements and display them on clicking a button, send contents to the server only after it satisfies all validation checks.
4. **mySQL**
   - mySQL is the database that is used in the system. Since the entire system is based on database, mySQL is extremely important. The creation of tables, insertion, deletion, updation into the tables, searching in the database based on user queries is all completely dependent on mySQL. Fig 4 shows the created database.
Fig. 3 MySQL Database

5. PHP

PHP is the backend programming language used since it is a very powerful server-side scripting language. PHP has a wide range of functionalities which makes the programming language easier to understand and implement.

V. IMPLEMENTATION

Implementation includes all those features that make up the system. The system consists of six user types and each having its own uniqueness and features. Various user types are student, Placement Officer, Company, administrator, executive staff and department coordinators.

1. Student Profile

Students form the core of the entire Job portal since without the students, the entire purpose of Job portal loses its purpose. Once the user logs in from the login page (Fig. 5), the student is directed to the Student Home Page. The features of a student is as depicted in the figure Fig. 7 student can view the Message from the desk of Head of department (HOD), calendar, flash news and a message in the home page. The information board consists of notice board where the admin can update the information and downloads which is common to all students. The notification is for specific students only whom the PO (Placement Officer) chooses to send information to. The system provides generalized Curriculum System (CV) format by asking the students to fill the specified questions and providing an option to convert to CV. The company details can be viewed and students can register only for those companies to which they are eligible. Students can also view placement history and currently placed students company-wise or branch-wise.

The student’s portal is one of the most unique features which allow students to share resources among themselves or start a forum question regarding placement or the current technology. The FAQs (frequently asked questions) consists of the questions and answers which are most frequently asked by the students. Students can change their password, security question or photo in the accounts section of the student profile.

Fig. 4 Login Page
2. Placement Officer (PO) Profile

Placement officer is a person in the university who interacts with the companies and invite them to conduct placement in the university. Once the user logs in from the login page (Fig. 5), the user is directed to the Placement officer profile. The features of the placement officer are as shown in the fig 7. The placement officer is the only person who has the right to send messages to the company users and student users. The placement officer can update the students who are placed in a company.

3. Company Profile

The company profile is a temporary profile. A company will be given a user id to log into the portal. The company can communicate with the placement officer through messages in the system. The company coordinator can also upload company details, job profile, company pre-placement presentation, eligibility criteria. The company can also view the previously placed students in their company. The features are as shown in the Fig.8.
4. Executive Staff

Executive Staff is the person in the placement department of the college who are in charge of making regular updation. The executive staffs have all the rights the placement offer except that they cannot send messages to any other user. The home page of Executive staff is as show in the Fig. 8

5. Department Coordinators

Each department in the university has a placement coordinator. The department coordinator can include study materials for students to refer, view their branch student’s details and placement statistics. The home page of Department Coordinators is as depicted in the Fig. 9

6. Administrator

Admin is the only person who can grant access the various users and the system ensure that not much effort is put by the admin in entering all students user id. The login id of the student is their USN(University Student Number). The admin only has to give the starting USN and ending USN of a branch. The system will automatically generate the user ids as shown in the Fig. 10
VI. CONCLUSION

The proposed system overcomes all the disadvantages of the existing classic pen and paper method. The paper proposes a system to enable easier management of large number of student’s data, keep track of all approaching company deadlines, direct only eligible students to the job process, information updated once can be used for various purposes, share knowledge using forums and strict authorization. The entire process is automated and hence results in much better outcome.

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