

## ADVANCED CAMPUS JOB RECRUITMENT SYSTEM WITH AUTOMATIC PROFILE FILTERING AND INSTANT PUSH NOTIFICATIONS FEATURES

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### **ABSTRACT:**

Every academic year, several competitions and placement drives will be conducted in colleges. And to pass information about every opening or selection process from the head of the placement cell to the respective students there will be some human interference required. And also due to human involvement sometimes errors may occur in the filtering based on their eligibility criteria. To prevent these errors and minimize the human interference our solution provides a platform that can be used for placements related activities. This app provides a facility to add student's academic and skill details, and placement heads can post about competition details and placement openings. The company recruiters will be provided direct access to filter students based on their requirements, post details about the placement process and each round results. The student can get push notifications in the website, when any openings or updates are posted for which, they are eligible.

### **I. INTRODUCTION:**

The aim is to provide services to both the Employer and the Graduate by recruiting Graduates in institutions according to the employer specifications.

The three main users involved in this system are

1. Graduate (student)
2. Employer (company recruiter/HR)
3. Administrator (Placement Head)

Graduate is the student who registered for a job in the institution. Employer is a recruiter of the organization who specifies the requirements for the job role in the company. Administrator is

a head of placements cell in the institution and acts as a mediator between the employer and the graduate. Graduate gives his/her Personal, Educational and Skills complete details which can be used for recruitment process. Whenever there is a vacancy, the employer specifies the requirements which can be viewed by the registered graduate. Administrator of the institution is responsible to intimate the eligible students to register for a particular job post through notifications and the employer can update results after each round of placement process.

Push notification is a message that pop-up on user device which consist of a title, an image, a message, and a URL. These will appear on users' browser irrespective of the device (Android/iOS/Laptop) they are using. The push notifications serve as communication channel between the several types of users of an application.

Firestore Cloud Messaging (FCM) is a service containing a set of tools which helps in sending push notifications to different platforms like Android, iOS and web. Using the Firestore Admin SDK or FCM app server protocols, we can send push notifications to the registered users via backend server of our applications.

The Spring Framework is a famous Java Framework which provides comprehensive infrastructure support for development.

Spring Boot is open-source tool for Java-based web applications and microservices. This module of Spring Framework makes the development easier and faster through core capabilities like autoconfiguration, opinionated approach for configuration and ability to create the standalone applications.

Spring Security is a powerful and highly customizable framework that enables a programmer to impose security restrictions to Spring-framework-based Web applications through JEE components. This is primary use is to handle authentication and authorization at both the Web request level and the method invocation level.

## **II. EXISTING SYSTEM:**

Companies specifies their requirements and placement process to the placement officer. The placement officer has to contact each department placement coordinator to get eligible students list and pass on the registration information. Also, for each round of selection process, the selected candidates list again need to be circulated through entire chain.

Drawbacks:

- This process takes more time even for passing small information from company to candidates because of more human interference at multiple levels.
- Due to more human involvement, there might be a chance of inaccurate filtering of students and missing to notify students on time.

## **III. LITERATURE SURVEY:**

**TITLE:** The design of algorithm about the system of college talents recruitment

**AUTHOR:** Jiming Lan; Shengnan Xu

**YEAR:** 2012

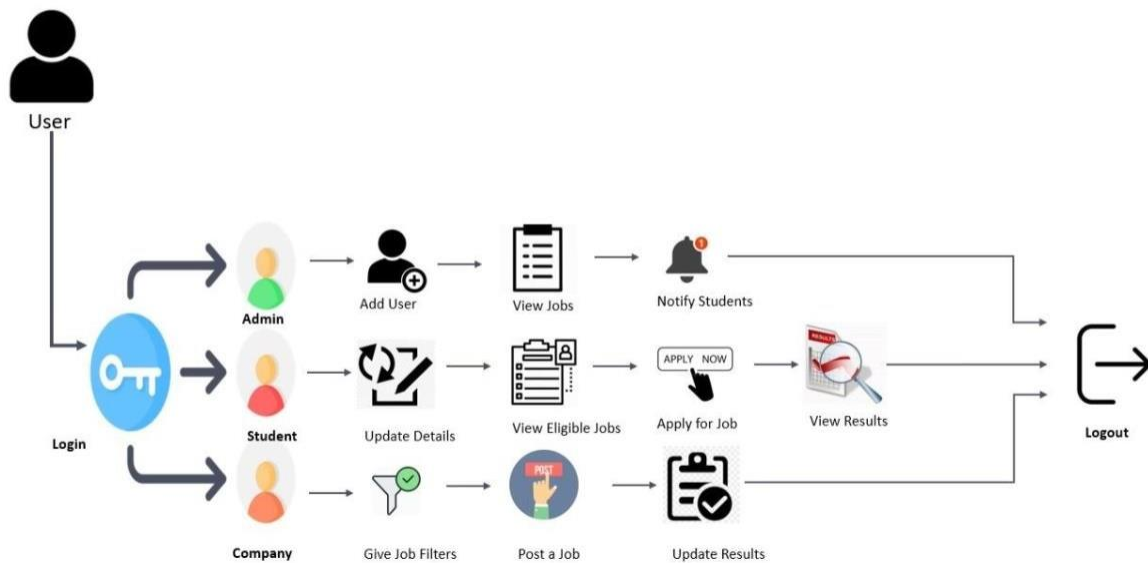
**TITLE:** Decision Support System for Employee Recruitment Using Multifactor Evaluation Process

**AUTHOR:** Wiwi Verina; Muhammad Fauzi; Fina Nasari; Dahriani Hakim Tanjung; Juli Iriani

**YEAR:** 2018

#### IV. PROPOSED SYSTEM:

We present a Full Stack Responsive Web Application to provide a quality service in sending prompt notification at appropriate time to all eligible graduates. The web app contains three interfaces for students, placement head, recruiting company respectively. The company will be provided an option to specify the requirements to filter the students through which the eligible students can get the prompt notification. The students can specify their academic details and skill details in the student interface. Finally, the placement coordinator is the person who maintain the student database (like adding or removing student) and company database (like adding new company for placement).



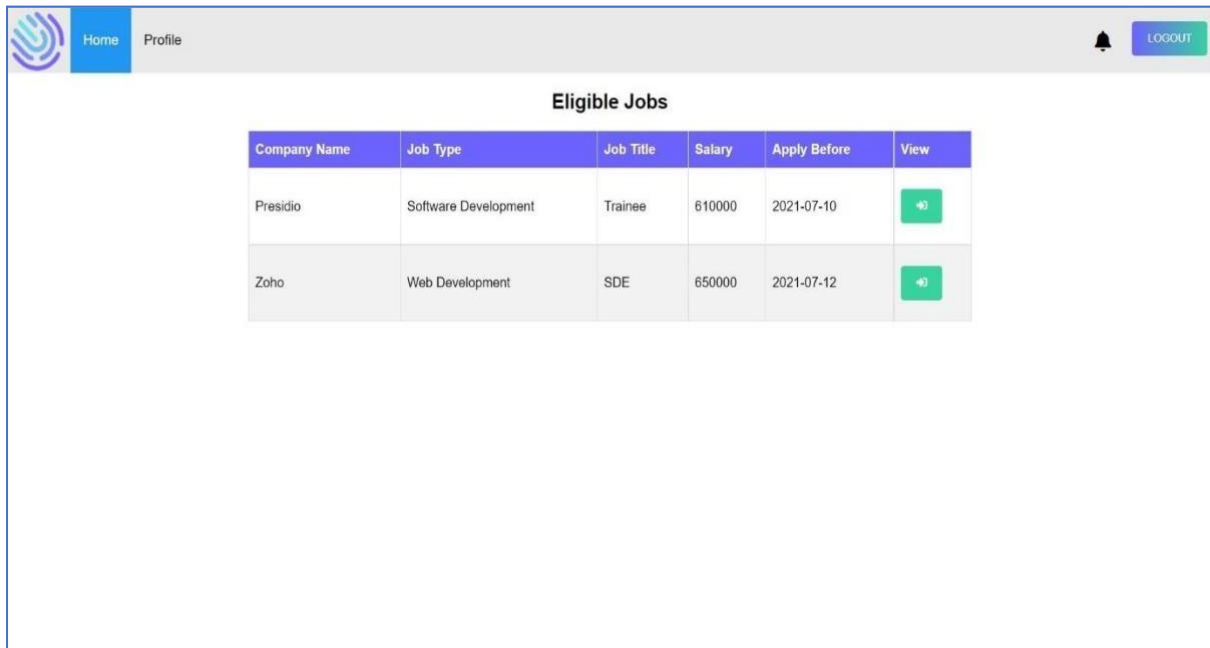
#### System Architecture

##### ○ MODULES

1. Student Module
2. Placement Head/Admin Module
3. Company recruiter Module
4. Push Notifications Module

1. Student Module:

In the student's UI, the student can enter their details like academic details, skill details. They can view the information of the job openings. They also can apply for any job for which they are eligible and can receive the notifications of round results for which they had participated.



Company Name	Job Type	Job Title	Salary	Apply Before	View
Presidio	Software Development	Trainee	610000	2021-07-10	<a href="#">View</a>
Zoho	Web Development	SDE	650000	2021-07-12	<a href="#">View</a>

## 2. Placement Head/Admin Module:

The placement head have the responsibility to add a new student or new company to the platform. They had the ability to send any notifications to both students and company as well. Placement head can also update details of a student or company profile.

Here, the ultimate access to control the database containing student and company records is provided to the placement head. The only user is provided the access to add a new student and a new company or alter the existing records to the database. The user can also send notifications to the student or company i.e., remainder.

The screenshot shows a web application interface for adding a student. At the top, there is a navigation bar with a logo on the left and links for 'Home', 'Add Student', 'Add Company', 'View All Students', and 'View All Companies'. A 'LOGOUT' button is on the right. The main content area contains a form with the following fields:

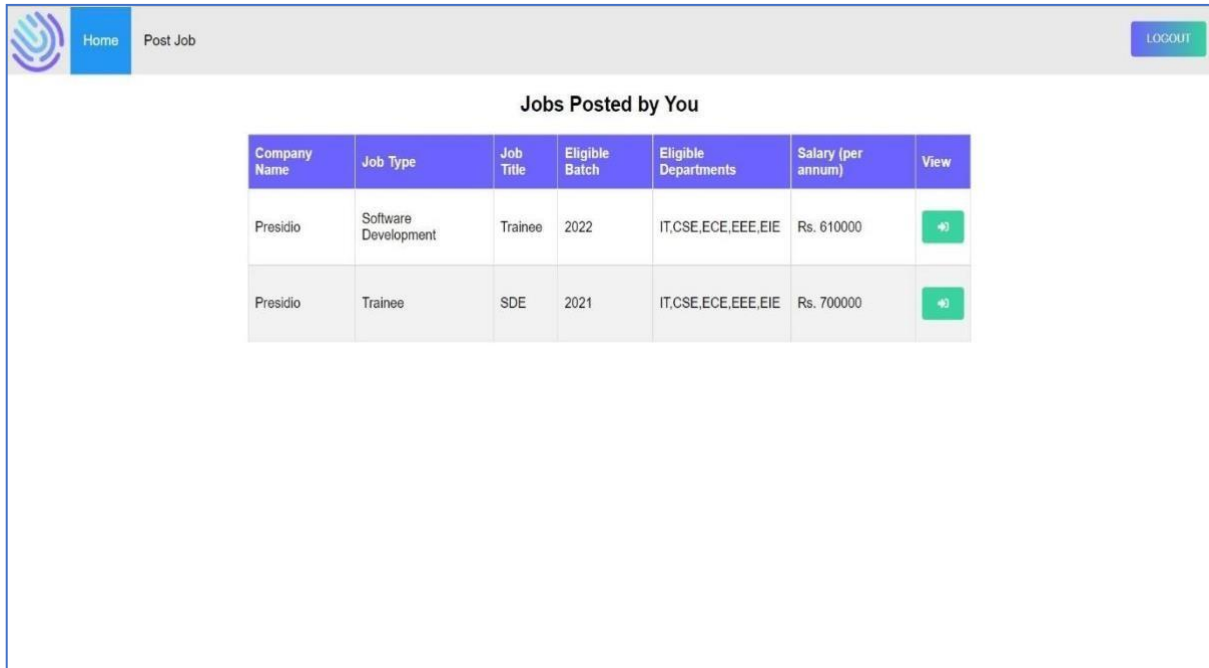
- Name: Enter your name
- Email: Enter your mail id
- Mobile Number: Enter your Mobile Number
- Registration Number: Enter your College Register Number
- First Name: Enter your first name
- Last Name: Enter your last name
- Department: IT (dropdown menu)
- Batch: 2020 (dropdown menu)

At the bottom of the form is a green button labeled 'ADD STUDENT'.

### 3. Company recruiter Module:

In the company's UI, the company's HR or the placement activity conductor is provided the access to specify their requirements in the platform. They can also send notifications like each round details, sharing interview meet link or address, filtered candidates for each round and even the final selected students for the job recruitment they conducted to all eligible students.

In this module, the company can specify their requirements for the placement process in the portal. In the company UI, the user is provided with a form to enter those details. The user also had the option to add custom fields to provide additional requirements for the placement process. The user can send competition details and round results to the students via inbuilt platform notification.



Company Name	Job Type	Job Title	Eligible Batch	Eligible Departments	Salary (per annum)	View
Presidio	Software Development	Trainee	2022	IT,CSE,ECE,EEE,EIE	Rs. 610000	<a href="#">View</a>
Presidio	Trainee	SDE	2021	IT,CSE,ECE,EEE,EIE	Rs. 700000	<a href="#">View</a>

#### 4. Push Notifications Module:

The placement head of the institution can send the push notifications to the eligible students for placement drive registration and participation for each round. The company recruiter can send the notifications regarding each round participation information like timings, test link and many more via this feature.

The company recruiter will be filling the form to provide requirements for placement to be conducted. After entering details and submitting the form, the app will automatically sort the students who fall under the specified requirements. Then the app sends the push notifications to all the eligible students/graduates immediately after submitting the form.

## V. SYSTEM REQUIREMENTS:

### SOFTWARE

#### REQUIREMENTS:

- Operating System: Windows / Linux / Mac
- Software: MySQL, JDK, Spring Framework
- Tools: Spring Tool Suite(STS) and Visual Studio Code

#### HARDWARE REQUIREMENTS:

- RAM: 8GB DDR RAM
- Processor: Intel Core i3 or later version

## **VI. CONCLUSION:**

We proposed a solution for college students, company and the individuals contributing important role in placement activities to manage all the process in the placement process. The simplified platform organizes all the job openings, job application status, and all the corresponding push notifications which are sent instantly to the students which ease the placement related activities associated with it. The normalized database and the user-friendly platform make the application an efficient software for all placement related activities on overcoming the existing software flaws.

## **VI. FUTURE WORK:**

We do have the inbuilt students list filtering facility from the database based on the requirement specified by the recruiter. But the list can be sorted only based on search key value method. To enhance the speed and accuracy of the application in searching, the AI algorithms can be applied in future to get enhanced searching results.

## **VIII. REFERENCES:**

- [1] J. Lan and S. Xu, "The design of algorithm about the system of college talents recruitment," 2012 3rd International Conference on System Science, Engineering Design and Manufacturing Informatization, 2012, pp. 265-268, doi: 10.1109/ICSSEM.2012.6340860.
- [2] W. Verina, M. Fauzi, F. Nasari, D. H. Tanjung and J. Iriani, "Decision Support System for Employee Recruitment Using Multifactor Evaluation Process," 2018 6th International Conference on Cyber and IT Service Management (CITSM), 2018, pp. 1-4, doi: 10.1109/CITSM.2018.8674277.
- [3] L. Haddadi, M. E. A. Tali, F. Bouarab-Dahmani and T. Berkane, "E-recruitment support system based on MOOCs," 2017 International Conference on Mathematics and Information Technology (ICMIT), 2017, pp. 234-238, doi: 10.1109/MATHIT.2017.8259723.
- [4] L. Yang and Y. Wang, "The design of database about the system of college talents recruitment," 2012 3rd International Conference on System Science, Engineering Design and Manufacturing Informatization, 2012, pp. 269-273, doi: 10.1109/ICSSEM.2012.6340861.