International Research Journal of Engineering and Technology (IRJET) e-ISSN: 2395-0056
Volume: 10 Issue: 04 | Apr 2023 www.irjet.net p-ISSN: 2395-0072

Automated Placement System

Mrs. Ashwini G[1], Mr. Harsha M[2], Mr. Mohammed Fawaz[3], Mr. Nishanth N[4], Ms. Tarunya L[5]

[1]*Assistant Professor, Dept. of Computer Science and Engineering, Maharaja Institute of Technology, Thandavapura*
[2,3,4,5]*Students, Dept, of Computer Science and Engineering, Maharaja Institute of Technology, Thandavapura*

Abstract - *Technology plays a vital role in day-to-day activities. and this intern made great changes in many work fields, the Placement process is one that changed a lot of colors in their systematic approaches. The computer-based placement system replaces the manual recruitment operations of an IT company. As recruitment is a round year activity involving thousands of candidates are needed to be evaluated a need has been felt to automate the entire operations. Students are registered through the app, all eligible candidates are sent a link to attend the drive. Thus, the burden of employees who conduct the virtual interview will be reduced, as the task will be done by the system itself.*

***Key Words*: Authorization, Security, Student, Company, Selection, Automation.**

1. INTRODUCTION

The placement allows individuals to obtain valuable industry experience and develop practical skills that are essential for performing the job in their field of expertise. This process involves assigning a precise responsibility to an individual. The selection procedure for any placements typically includes PrePlacement Presentation, Aptitude test, Coding round, technical round, and HR round. Placement involving thousands of candidates, it felts like automating the placement process. Considering all the Applications submitted by the candidates were checked for eligibility. All eligible candidates are allowed to attend the assessment. Most companies go for the main three rounds: aptitude round, coding/technical round, and HR round

Aptitude Round: An aptitude test is a tool used by employers to evaluate the skills and abilities of job candidates by administering various types of assessments such as tests for problem-solving, prioritization, and numerical proficiency, among other competencies.

Technical Round: Technical interviews are essentially required. It is an interview to assess your technical ability for the role, and the depth and breadth of your knowledge in your chosen field.

HR Round: Every company holds an HR interview round to get to know potential candidates personally. An HR interview's main aim is to judge the candidate's personality, background, strengths, and weaknesses and decide whether the candidate suits the specific role.

1.1 OVERVIEW

Automated placement systems are becoming increasingly popular in organizations as they help reduce the workload and time required to complete the placement process. These systems are used to automate the recruitment process, which includes conducting assessment tests, coding rounds, and automated technical interviews. With the proposed system, organizations can conduct technical rounds online without any interaction with interviewers. This helps organizations complete the recruitment process in a shorter period of time. Additionally, the results of each round are displayed immediately, making it easier for organizations to make decisions quickly and efficiently. Overall, automated placement systems are crucial tools that help increase the success rates of organizations in placing students in desirable job positions.

1.2 PROBLEM STATEMENT

Recruiting is a complex process that involves screening and shortlisting candidates, which can take up a lot of time. The delay in screening can cause frustration for both the candidates and the organization, especially when a large number of applications. By providing timely updates to candidates, and conducting structured interviews to ensure fair and consistent evaluation of candidates. By prioritizing these efforts, organizations can improve their recruitment process and attract the best talent for their needs.

2. EXISTING SYSTEM

The placement system has long been a crucial part of the recruitment process, especially in the corporate world. However, it is not without its problems. One of the biggest issues is that it takes a lot of time for the entire process to be completed. This can lead to frustration and anxiety for both the employer and the employee. Additionally, the delay in announcing the results can be detrimental to the morale of the candidates. Another issue with the placement system is that assigning work for a technical round can be a challenge. While this is an important aspect of the recruitment process, it can often be a source of stress for the candidates. It is crucial that the tasks assigned are relevant and challenging, but not too difficult that they feel overwhelmed.

3. PROPOSED SYSTEM

The proposed automated placement system offers numerous advantages to both institutions and students. One of the primary benefits is the reduction in time needed to complete the placement process. With the development of an Android app, students can attend placement drives through their smartphones, making the entire process more efficient. Additionally, results are displayed immediately after the completion of each round, eliminating the need for students to wait for days or even weeks for their results.

Overall, automated placement systems are essential tools that help increase the success rates of organizations in placing students in desirable job positions.

4. MODULE DESCRIPTION

Retrofit: Retrofit is a widely-used module in Java for Android application development. It is a type-safe HTTP client that simplifies the process of consuming RESTful web services. This makes it a popular choice for developers who need to handle network requests in their applications. One of the main advantages of Retrofit is that it allows developers to define high-level abstractions over HTTP requests and responses, which helps reduce the amount of boilerplate code needed. This is achieved through the use of annotations to specify the API endpoint and request parameters, with code generation taking place at compile-time based on the provided interface. Retrofit also supports data serialization and deserialization using popular formats such as JSON and XML, further simplifying the process. Additionally, Retrofit can be easily integrated with other popular libraries in the Android ecosystem, such as OkHttp and RxJava, making it a versatile and powerful tool for Android developers. Overall, Retrofit streamlines the process of handling network requests in Android applications, making it an important tool for developers looking to create highquality application.

Express.Js: It is a web application framework for Node.js that provides a set of features for building web and mobile applications. It simplifies the process of creating server-side web applications and APIs by providing a range of built-in middleware and a powerful routing system. Express is known for its flexibility, allowing developers to choose from a wide range of middleware and third-party modules to add additional functionality to their applications. It also supports a variety of view engines, making it easy to render dynamic content in web applications. With its scalability, flexibility, and easy maintenance, Express is the best choice for developers to create robust and maintainable web applications and APIs. Its lightweight and minimalist design makes it easy to learn and use, even for developers new to Node.js. Overall, Express is a powerful framework that streamlines web development and provides a range of useful features and tools for building web applications and APIs

Complex: The "complex" module is a powerful tool for Node.js developers who need to work with complex numbers in their applications. With its easyto-use API and rich set of features, the module can help developers create fast, efficient, and accurate mathematical calculations involving complex numbers. creates a new "complex number" object, which is a mathematical entity with both a real and imaginary component. The function takes input parameters for the real and imaginary parts of the complex number and uses them to create a new object with those specified values. The module also provides various methods to perform arithmetic operations on complex numbers, such as addition, subtraction, multiplication, and division. Additionally, the module provides methods to calculate the magnitude, conjugate, and argument of a complex number. One of the advantages of the "complex" module is that it allows developers to perform complex mathematical calculations using JavaScript without having to implement their own complex number arithmetic.

5. FLOW CHART

Fig-1: Methodology Flowchart

1. The company is required to register its data before proceeding with the recruitment process.

2. By going through the details of the company, candidates must register by providing the necessary details

3. Candidate attends the following interview rounds.

4. The results will be informed to each candidate very soon.

5. At the end, the final results will be intimated by the company for the selected candidate.

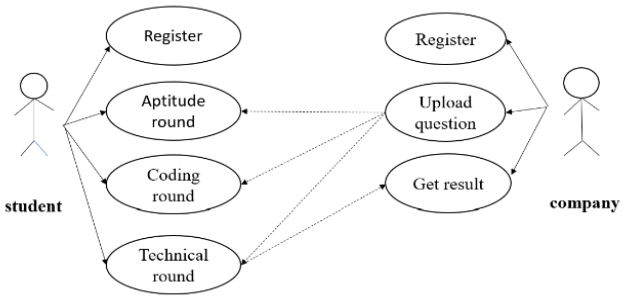

Fig-2: Use Case Diagram

Fig-3: Student Register

Fig-4: Fingerprint Prompt

Fig-5: Student Login

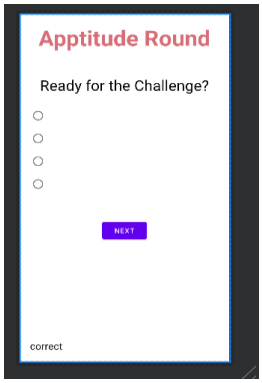

Fig-6: Aptitude Round

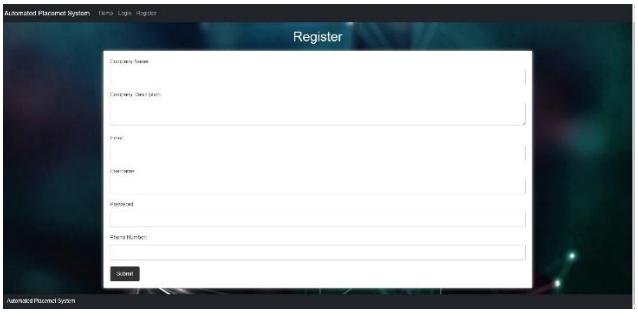

Fig-7: Company Register

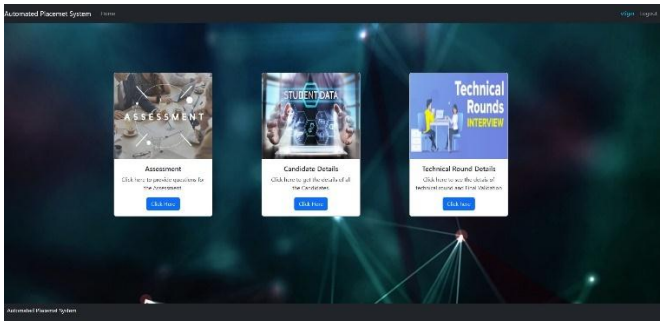

Fig-8: Company Home

6. CONCLUSIONS

Technology has revolutionized many aspects of our daily lives, including the recruitment process. The computer-based placement system has replaced manual operations in the recruitment of IT companies. Automation of the entire recruitment process has become necessary due to the round-year activity involving thousands of candidates that need to be evaluated. The proposed system aims to reduce the workload and time for organizations to complete the placement process. It includes an assessment test, a coding round, and an automated technical interview that is conducted online without any interaction with an interviewer. The results of each round are displayed immediately, allowing the organization to complete the recruitment process in a short period of time. This system is also beneficial for candidates as they can attend the assessments through their smartphones, making it easier and more accessible for them to participate in the recruitment process. The automated placement system is a significant step towards streamlining the recruitment process and ensuring that the best candidates are selected for the job.

ACKNOWLEDGEMENT

We would like to extend our deepest gratitude to our Project Guide, Prof. Ashwini G, who guided us and provided us with her valuable knowledge and suggestions on this project and helped us improve our project beyond our limits. Secondly, we would like to thank our Project coordinators, Dr Ranjit K N and Dr HK Chethan, who helped us finalize this project within the limited time frame and by constantly supporting us. We would also like to express our heartfelt thanks to our Head of Department, Dr Ranjit KN, for providing us with a platform where we can try to work on developing projects and demonstrate the practical applications of our academic curriculum. We would like to express our gratitude to our Principal, Dr Y T Krishne Gowda, who gave us a golden opportunity to do this wonderful project on the topic of 'Automated Placement System', which has also helped us in doing a lot of research and learning their implementation.

REFERENCES

[1] Abrams, K. M., Wang, Z., song, Y. J., & Galindo-Gonzalez, S. (2014). Data Richness Trade-Offs Between Face-to-Face, Online Audiovisual, and Online Text-Only Focus Groups. Social Science Computer Review, 33(1), 80–96. https://doi.org/10.1177/0894439313519733 M. Young, The Technical Writer's Handbook. Mill Valley, CA: University Science, 1989.

[2] Van Bulck L, Kovacs AH, Goossens E, Luyckx K, Jaarsma T, Stro¨mberg A, Moons P. Impact of the COVID-19 pandemic on ongoing cardiovascular research projects: considerations and adaptations. Eur J Cardiovasc Nurs 2020; 19:465–468

[3] Beres A, Baird R, Puligandla PS. Success in the pediatric surgery match: a survey of the 2010 applicant pool. J Pediatr Surg. 2011; 46:957–961

[4] Irani E. The Use of Videoconferencing for Qualitative Interviewing: Opportunities, Challenges, and Considerations. Los Angeles, CA: SAGE; 2019.

[5] Gray, L., Wong, G., Rempel, G., & Cook, K. (2020). Expanding Qualitative Research Interviewing Strategies: Zoom Video Communications. The Qualitative Report, 25(5), 1292–1301. https://doi.org/10.46743/2160-3715/2020.4212