Students Placement Management System

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ABSTRACT

Student Placement Management system for job/internship is a web-based information system where information is given either through internet or intranet using computer system. The main goal of this information system is to effectively get the information about the eligibility of the student for an internship/job through a totally automated system that not only reduce the required time but also obtain fast and accurate results.

The application provides a platform where recruiters can post job listings, view student profiles, and schedule interviews seamlessly. On the other hand, students can create profiles showcasing their skills, educational background, and achievements. They can browse job listings, apply for positions, and track their application status conveniently through the mobile app.

This project demonstrates the importance of automating administrative processes and highlights how digital tools can enhance the placement experience for both students and institutions.

1. INTRODUCTION

The placement process is a crucial phase in a student's academic journey, bridging the gap between education and employment. As institutions grow in size and the number of students and recruiting companies increases, managing placement activities manually becomes inefficient and error-prone. To address these challenges, The Student Placement Management System has been developed as a comprehensive digital solution.This system is designed to automate and streamline the end-to-end placement process in colleges and universities. It provides an integrated platform for placement officers, students, and recruiters to interact and manage placement-related activities efficiently. Key functionalities include student registration, eligibility verification, job posting by companies, application management, interview scheduling, and result tracking.

Existing System

There is no proper application for the students to directly apply for the software job directly. This application will help them to know the vacancies and the eligibilities to apply for a company. The company recruits graduates by maintaining manual records. In order to maintain the information of all the employees and students who applied for jobs a group of employees should be hired.

Proposed System

To address disadvantages of existing system, we consider implementing modern, technology-driven campus recruitment system. In our proposed system we plan to overcome these challenges and enhance the efficiency and effectiveness of campus recruitment process.

2-DESIGN

Design represents the number of components we are using as a part of the project and the flow of request processing i.e., what components in processing the request and in which order. An architecture description is a formal description and representation of a system organized in a way that supports reasoning about the structure of the system.
Architecture

Project architecture represents number of components we are using as a part of our project and the flow of request processing i.e. what components in processing the request and in which order. An architecture description is a formal description and representation of a system organized in a way that supports reasoning about the structure of the system. Architecture is of two types. They are:

- Software Architecture
- Technical Architecture

Software Architecture

Software architecture design tools help to build software that doesn't have security issues. This is key because there are software risks in all areas of the software development process. When teams avoid

software flaws or bugs, they are able to move forward with confidence.

However, since this isn't always possible, software architecture design tools also need to have the ability to find flaws during the creation of software and correct them efficiently. When using software architecture design tools that can identify flaws, you will have the ability to analyse the fundamental software design, assess the chance of an attack, figure out potential threat elements, and identify any weaknesses or gaps in existing security.
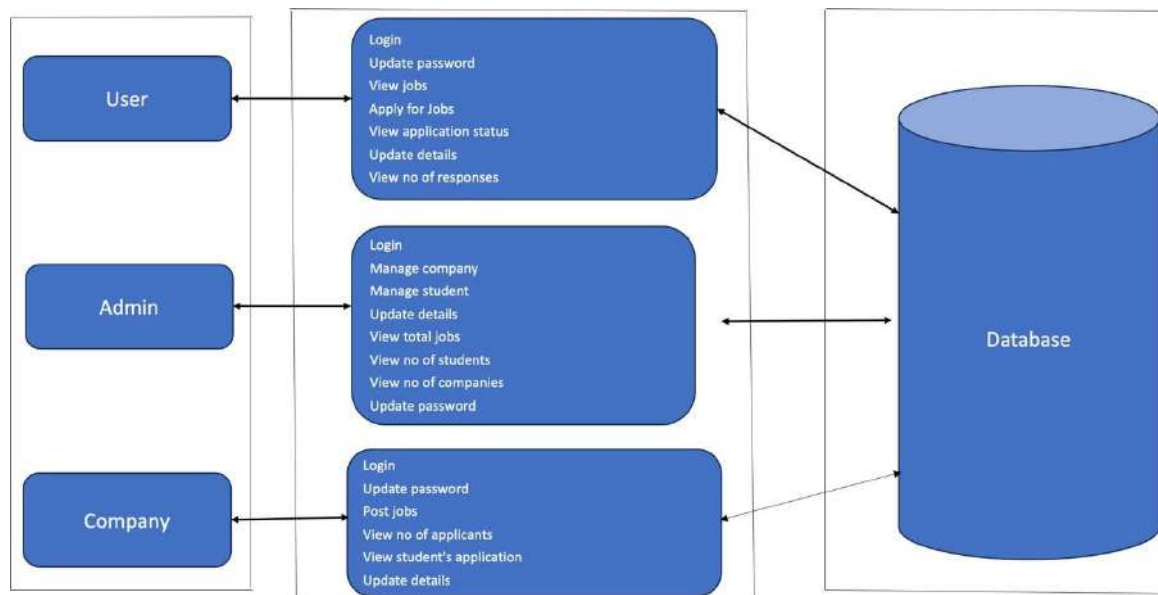
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Fig.3.1 Software Architecture

Technical Architecture

Technical Architecture is a form of IT architecture that is used to design computer systems. It involves the development of a technical blueprint with regard

to the arrangement, interaction, and interdependence of all elements so that system-relevant requirements are met.
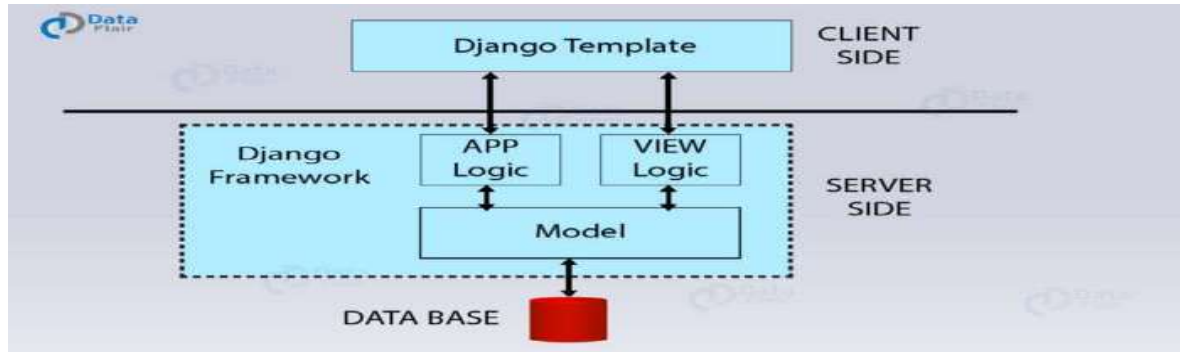
Fig.3.2 Technical Architecture

3-IMPLEMENTATION

JAVA

Python is a high-level, interpreted programming language known for its simplicity and readability. Created by Guido van Rossum and first released in 1991. Python is easy to learn, and its syntax is simple and easy to understand. Python's syntax closely resembles natural language, which makes it intuitive and easy to understand. Python code is executed line by line, which helps with debugging and testing.You don't need to declare variable types explicitly. Python figures out the type at runtime code. This collects the unused objects automatically. Mentation dependencies as possible. It is a general-purpose programming language intended to let programmer. Its high-level built in data structures, combined with dynamic typing and dynamic binding, make it very attractive for Rapid Application Development, as well as for use as a scripting or glue language to connect existing components together. Python's simple, easy to learn syntax emphasizes readability and therefore reduces the cost of program maintenance. Python supports modules and packages, which encourages program modularity and code reuse. The Python interpreter and the extensive standard library are available in source or binary form without charge for all major platforms, and can be freely distributed.Often, programmers fall in love with Python because of the increased productivity it provides. Since there is no compilation step, the edit-test-debug cycle is incredibly fast. Debugging Python programs is easy: a bug or bad input will never cause a segmentation fault. Instead, when the interpreter discovers an error, it raises an exception. When the program doesn't catch the exception, the interpreter prints a stack trace. A source level debugger allows inspection of local and global variables, evaluation of arbitrary expressions, setting breakpoints, stepping through the code a line at a time, and so on. The debugger is written in Python itself, testifying to Python's introspective power. On the other hand, often the quickest way to debug a program is to add a few print statements to the source: the fast edit-test-debug cycle makes this simple approach very effective.Python's versatility and large community support have made it one of the most popular programming languages in the world.

TESTING

Software testing is a process, to evaluate the functionality of a software application with an intent to find whether the developed software met the specified requirements or not and to identify the defects to ensure that the product is defect free in

order to produce the quality product.

As per the current trend, due to constant change and development in digitization, our lives are improving in all areas. The way we work is also changed. We access our bank online we do shop online; we order food online and many more. We rely on software's and systems. We all know that one small bug shows huge impact on business in terms of financial loss and goodwill. To deliver a quality product, we need to have Software Testing in the Software Development Process.

- Cost effectiveness

- Customer Satisfaction

- Security

- Product Quality

Unit Testing

During this first round of testing, the program is submitted to assessments that focus on specific units or components of the software to determine whether each one is fully functional. The main aim of this endeavor is to determine whether the application functions as designed.

In this phase, a unit can refer to a function, individual program or even a procedure, and White box testing method is usually used to get the job done. One of the biggest benefits of this testing phase is that it can be run every time a piece of code is changed, allowing issues to be resolved as quickly as possible. It quite common for software developers to perform unit tests before delivering software to testers for formal testing.

Integration Testing

Integration testing allows individuals the opportunity to combine all of the units within a program and test them as a group. This testing level is designed to find interface defects between the modules/functions. This is particularly beneficial because it determines how efficiently the units are running together. Keep in mind that no matter how efficiently each unit is running, if they properly integrated, it will affect the functionality of the software program. In order to run these types of tests, individuals can make use of various testing methods, but the specific method that will be used to get the job done will depend greatly on the way in which the units are defined.

System Testing

System testing is the first level in which the complete application is tested as a whole. The goal at this level is to evaluate whether the system has complied with all of the outlined requirements and to see that it meets Quality Standards. System testing is undertaken by independent testers who haven't played a role in developing the program. This testing is performed in an environment that closely mirrors production. System Testing is very important because it verifies that the application meets the technical, functional, and business requirements that were set by the customer.
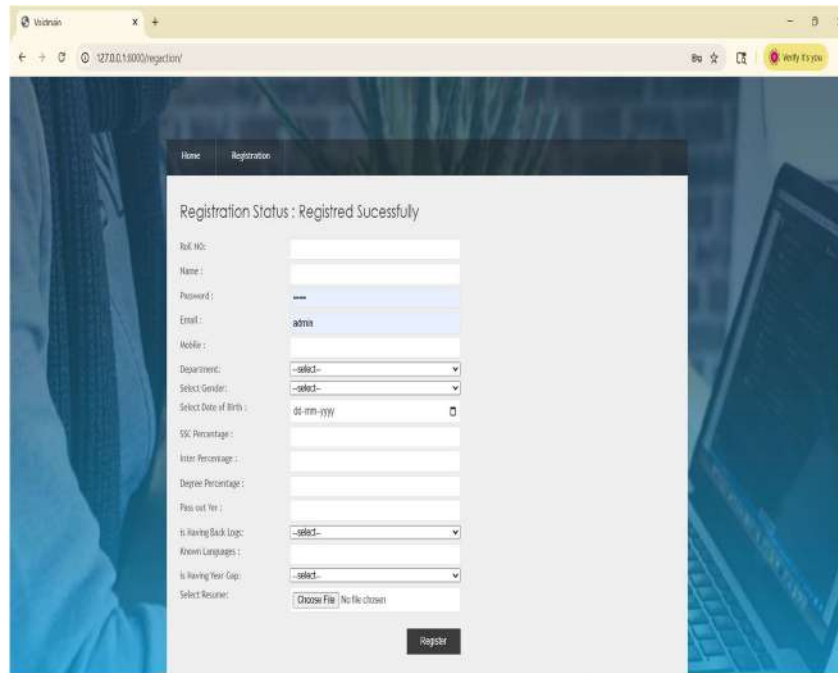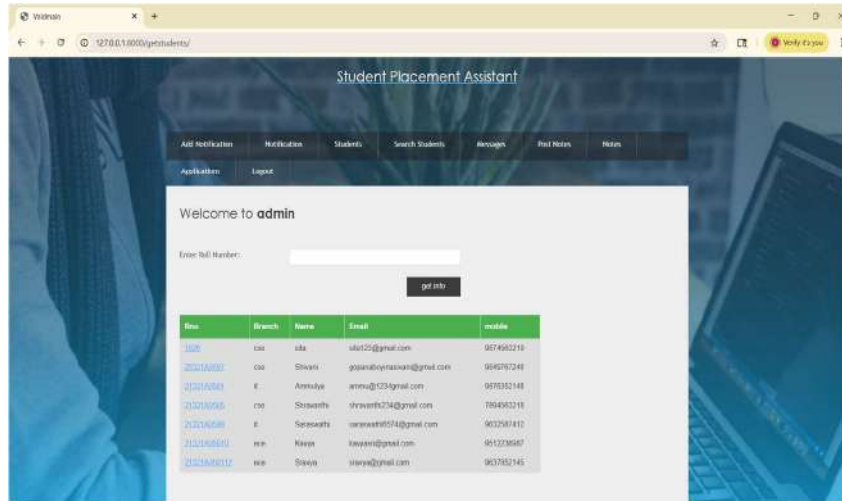
4-SCREENSHOTS
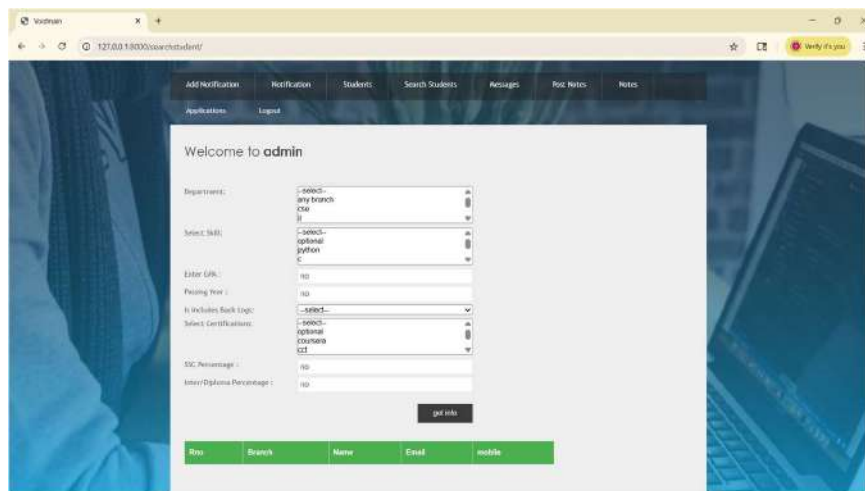
Screenshot 4.1 Admin Login Page
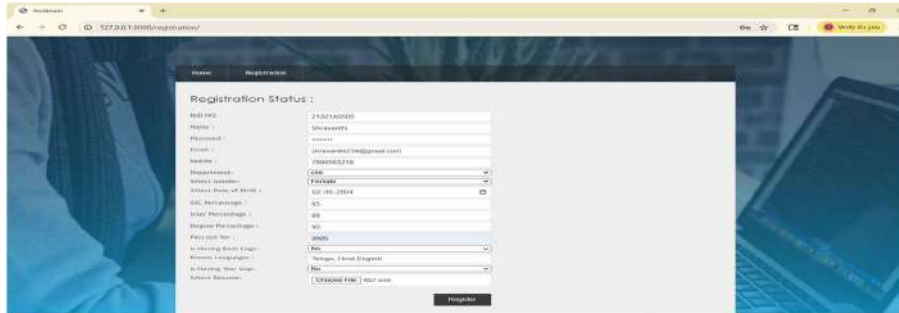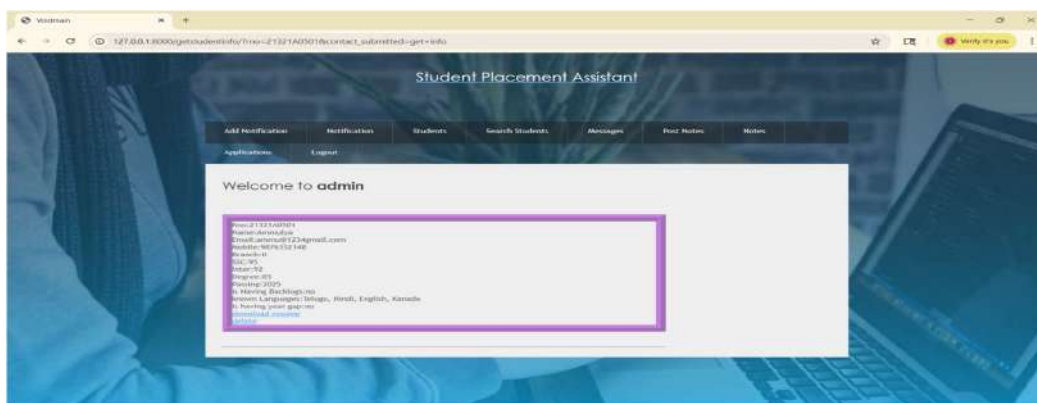

Screenshot 4.2 User Registratiom Page

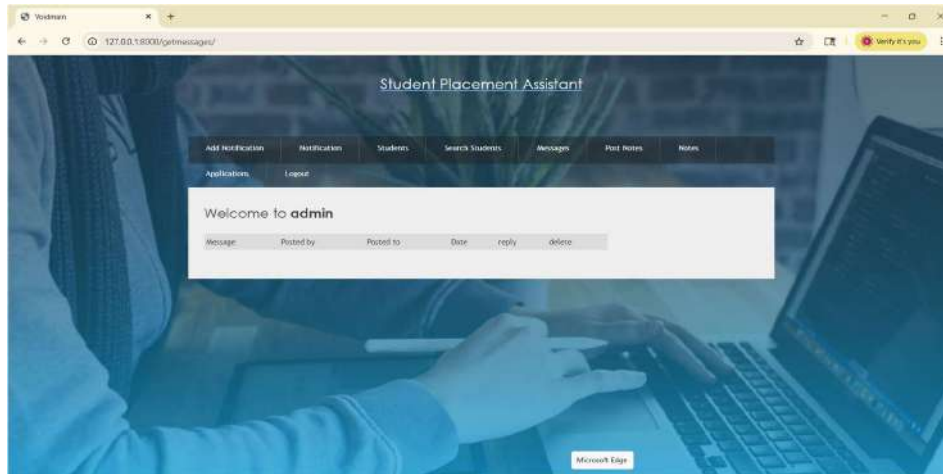Screenshot 4.3 User Registratiom Successful Page

Screenshot 4.4 Students List Page

Screenshot 4.5 Students Search Page

Screenshot 4.6 Student Details Page

Screenshot 4.7 Gets Messages Page

5. CONCLUSION AND FUTURE SCOPE

Conclusion

The 'Students Placement Management System' has been developed in the interest of students and to enhance the placement process. The successful implementation of this project will bring about a drastic change in the placement activity, thereby benefitting all who are involved in it. 'The Students Placement Mangement System' will be a valuable addition to the college facilities. This system serves as a valuable tool for institutions to better manage placements, support student career growth, and maintain strong relationships with recruiting organizations.

Future Scope

- Enhanced Data Analytics: Implementing advanced analytics can provide insights into recruitment trends, candidate preferences, and hiring success rates, enabling better decision-making.

- Integration with AI and Machine Learning: Integrating AI and machine learning algorithms can automate candidate screening, analyse resumes, and predict candidate suitability for specific roles.

- Expansion of Features: Continuously adding features such as chatbots for candidate queries, interview scheduling tools, and virtual job fairs can enrich the user experience and attract more stakeholders.

- Partnerships with Industry: Collaborating with industry partners can facilitate internships, mentorship programs, and skill development initiatives, enriching the overall recruitment ecosystem.

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