

ENHANCING CAMPUS RECRUITMENT TRAINING PLATFORM: A CASE STUDY

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Abstract – Companies visit campus every year for providing placement offers from 6th semester onwards. Students participate in the companies drive and want to crack the campus recruitment and get placed with desired package. To do so they need proper resources to crack the test. Many students clear aptitude test but find it difficult to clear the coding round. Some students don't know what kind of coding questions are coming in the test. This Website is designed based on cloud computing that will help students to prepare for coding questions in the Campus Placement. It is going to ease their work by listing all those previous year coding questions of different companies at one place and in free of cost. Also, their time will be saved as there is no need for them to visit several websites. This Website aims to provide guidance on how to prepare for coding questions and also help them to code in various languages they are comfortable like C, C++, Python, Java.

Key Words: campus placement, training platform, compiler, Django Framework

1. INTRODUCTION

In today's competitive world, getting recruited by top companies is a dream for many students. However, the recruitment process of these companies is highly competitive and often involves multiple rounds of coding tests, technical interviews, and other selection procedures. To succeed in this process, students need to have practical exposure to coding and must possess the necessary skills required by the industry. As the job market becomes increasingly competitive, students must equip themselves with the necessary skills to succeed in the recruitment process. Among these skills, coding has emerged as a crucial requirement for students seeking jobs in the technology sector. However, students often struggle to find the right resources to learn and practice coding. Companies visit campus every year, many students try to crack the campus recruitment and get the desired job, but they find it difficult to gather the resources required to crack the exams. So this website is designed based on cloud computing that will help the students to prepare for coding questions in the upcoming Campus Recruitment Drive. There are many students who are unaware of questions asked in the Campus Recruitment/Placement Drive. It will help the students to access all the previously asked coding questions in the Campus Recruitment/Placement Drive of different companies. As technology continues to advance, the demand for skilled software developers continues to grow. Many companies are looking for candidates with strong coding skills, and campus recruitment has become a critical step in the hiring process. However, students often lack access to the resources they

need to develop their coding skills, making it difficult for them to succeed in the recruitment process. In today's competitive job market, students need to have strong coding skills to succeed in the recruitment process. However, traditional classroom education may not provide students with the hands-on experience they need to develop their coding skills. As a result, many students struggle to perform well in coding interviews during campus recruitment. To address this challenge, a "Campus Recruitment Training Platform" has been proposed. This platform aims to provide students with a comprehensive solution to improve their coding skills. It includes company-specific coding questions, a compiler to run and compile the code, and solutions to the coding questions. Furthermore, the platform offers the flexibility for students to choose their preferred programming language, including C, C++, Java, and Python.

2. Literature Survey

Dr.D.Madan Mohan in his reasearch "A STUDY ON EFFECTIVENESS OF CAMPUS RECRUITMENT TRAINING ONPLACEMENTS" suggests that, Engineering education is one among the premier measures of any developing country as it has toplay a vital role in producing good engineers for the development of the nation in all aspects. Theprospects and development in the higher education sector in India needs a critical examination ina rapidly globalizing world. There is an urgent need to work for the development of the technicaleducational sector to meet the need of the emerging opportunities, increasing youngergeneration population and challenges of the 21st century. The decisions that are going to be implemented are likely to hold the key to India's future as a center of knowledge production. We need higher and technically educated people who are skilled and who can drive our economyforward. If India could provide skilled people to the outside world, then we could transfer ourcountry from a developing nation to a developed nation in a short span.[1]

K.N.NANDURKAR, C.S.MHASDE & P.K.SHAHABADKAR concluded in their research that students enroll to engineering colleges mainly to get good placements. The students of premier institutes like IITs and IIMs do not face the problems of placement as many companies visit their campus for recruitment. However, the private, unaided colleges have to strive hard to bring the companies for campus placement. This is mainly due to the quality of students joining different institutes. An attempt was done by a leading unaided college in Nashik to enhance the placement opportunities for its students. Due to the planned efforts taken by the management, the placement was almost doubled in last three years. The encouraging feedback

received from students as well as employers also helps in branding of the institute. [2]

Dr. V.Samuel Rajkumar, Dr. R. Prabhakara Raya & Dr. P. Ganesan suggests in the research that there has been always confusion between the industry and the educational institutions in finding out the right season for the campus placements. Industry through the NASSCOM and other regulatory bodies has been changing the recruitment season between July and January. There has been no consistency from the industry on the recruitment season. The students feel that June and July would be very early as they would not be prepared for the interviews. October and November months are examination months and after January, they are engaged with their project work and hence these months are less preferred. Most of the companies freeze on their campus recruitment budgets by June / July and hence the HR managers feel that after July will be an ideal period for the recruitments. The months between August and September were perceived to be the ideal months for recruitment by both the recruitment managers and the students. [3]

Qubati, Thiyazan & Tammim, Kamal suggests from their research from the point of view of both graduates and employers, through this study, the researcher came up with the fact that internship programs have a significant impact on enhancing graduates' employability. The results showed a correspondence between the responses of both employers and graduates regarding the importance of employability skills in getting a job. The results of the study also showed that the internship programs greatly helped graduates obtain the skills required to be prepared for obtaining jobs. The objectives of the study have been positively achieved, the questions of the study have been answered, and also the hypotheses have been supported, as the findings proved that the internship programs have acquired the graduates with the employability skills required by employers. The findings also showed that there is no difference between the opinions of both employers and graduates regarding the importance of employability skills for being hired as 68% of graduates said that the internship enhanced their transition into my employer's organization, and 94% of graduates said that the internship has provided them with an advantage in securing employment after graduation.[4]

Dr. Siddhartha Ghosh , Dr. A Padmaja, Mr Y Praveen Kumar concluded in their research that the collaboration between technical institutions and industry is not new, but the way market demand is changing for the best fresh candidates, time has come that each one of us (read – academic institutions) establishes strong Industry Collaborations. The mantra of the hour for us is IIC, CoEs, MoUs and Certifications to fill the best skill gap and enable the students in their dream areas. The skills are not just for job market, but they are equally must for higher studies at foreign universities, and also for entrepreneurship. The journey of VJIT under the umbrella of IIC is opening new gates for it and we feel we are just at the beginning, and hence the need of the hour is to build better relation with the industry. The result till date is highly acceptable and will cherish our young hearts. The overall motto is nothing but the benefit of the students.[5]

3. CRTP Architecture

The architecture of the Campus Recruitment Training Platform is designed to ensure high performance, scalability, and maintainability. The system is built using the Django web framework, which is a popular and widely used Python-based framework for developing web applications.

The architecture of the system is divided into several layers, including the presentation layer, application layer, and data layer. The presentation layer is responsible for rendering the user interface, while the application layer handles the business logic of the system. The data layer is responsible for storing and retrieving data from the system's database.

The system architecture of the "Campus Recruitment Training Platform" is a multi-tier architecture, where each tier serves a specific function and is responsible for performing a set of related tasks. The architecture consists of three main tiers:

- **Presentation tier:** This tier is responsible for providing the user interface for the application. It includes the website's home page, dashboard, company pages, and coding question pages. The presentation tier is implemented using the Django framework, which provides the web server functionality.
- **Application tier:** This tier contains the core business logic of the application. It handles all the user requests and processes the data. The application tier is implemented using Django, which provides the application server functionality.
- **Data tier:** This tier is responsible for storing and retrieving data from the database. It includes the user account information, company information, and coding questions. The data tier is implemented using a database management system (DBMS), such as MySQL or PostgreSQL.

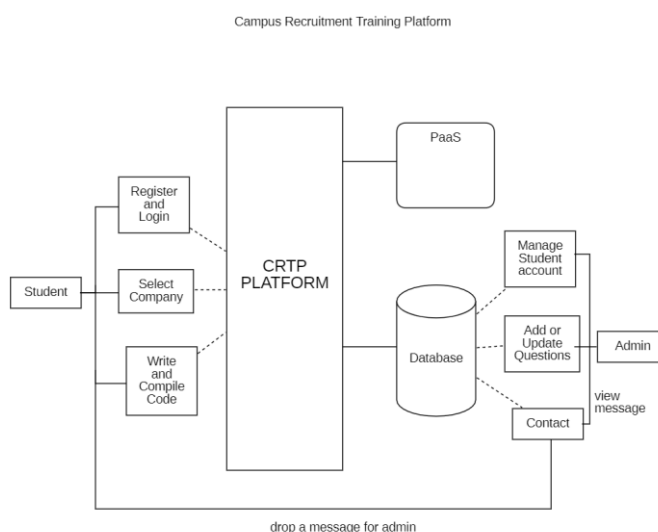


Fig -1: CRTP Architecture

4. Django Architecture

Django is a high-level web framework that follows the Model-View-Controller (MVC) architectural pattern. The "Campus Recruitment Training Platform" is built using the Django framework, which enables the platform to have a robust and scalable architecture.

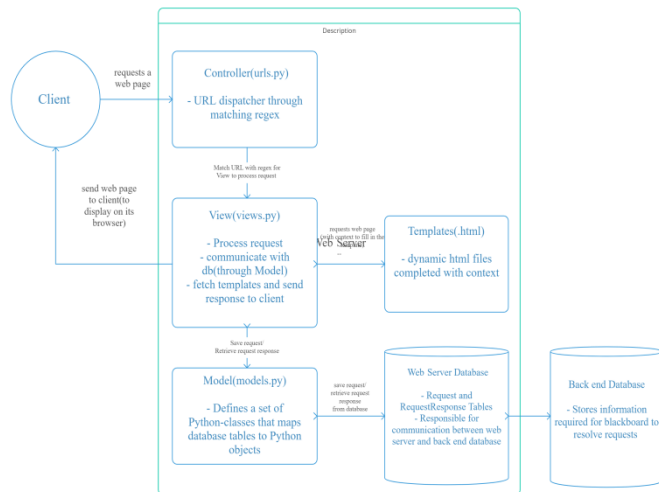


Fig -2: Django Architecture

The Django architecture flowchart for the "Campus Recruitment Training Platform" can be broken down into the following components:

- **User Interface:** The user interface layer is responsible for displaying the content of the web application to the user. The user interface of the "Campus Recruitment Training Platform" includes the home page, login page, registration page, and the dashboard page.
- **Views:** The views layer is responsible for handling user requests and rendering the appropriate response. In the "Campus Recruitment Training Platform," the views handle user requests for logging in, registering, and accessing the dashboard, practice questions, and performance data.
- **Templates:** The templates layer is responsible for generating dynamic HTML pages that are displayed to the user. The templates used in the "Campus Recruitment Training Platform" are written using Django's template language and include the HTML, CSS, and JavaScript code.
- **Models:** The models layer is responsible for defining the data models for the application. In the "Campus Recruitment Training Platform," the models include the user model, company model, practice log model, and performance data model.
- **Forms:** The forms layer is responsible for handling user input and validation. In the "Campus Recruitment Training Platform," the forms are used for user registration and login.
- **Database:** The database layer is responsible for storing and retrieving data from the database. In the "Campus Recruitment Training Platform," the database is used to store user accounts, practice logs, and performance data.
- **Admin Interface:** The admin interface layer is

responsible for providing a graphical user interface for the admin to manage the platform. In the "Campus Recruitment Training Platform," the admin interface is used to manage companies, user accounts, and practice logs.

5. Use Case Diagram

The use case diagram of the "Campus Recruitment Training Platform" illustrates the various actors involved in the system and their interactions with the system. The use case diagram is a graphical representation of the system's functionality, focusing on what the system does rather than how it does it. The use case diagram represents the functional requirements of the system and the actors that interact with it. In the "Campus Recruitment Training Platform," there are three main actors - User, Admin, and Compiler. The User is the primary actor who uses the platform to practice coding questions and improve their skills. The User can register and log in to the platform to access the practice questions. They can select a company to practice for and attempt coding questions using the compiler. The User can view their practice history and performance data.

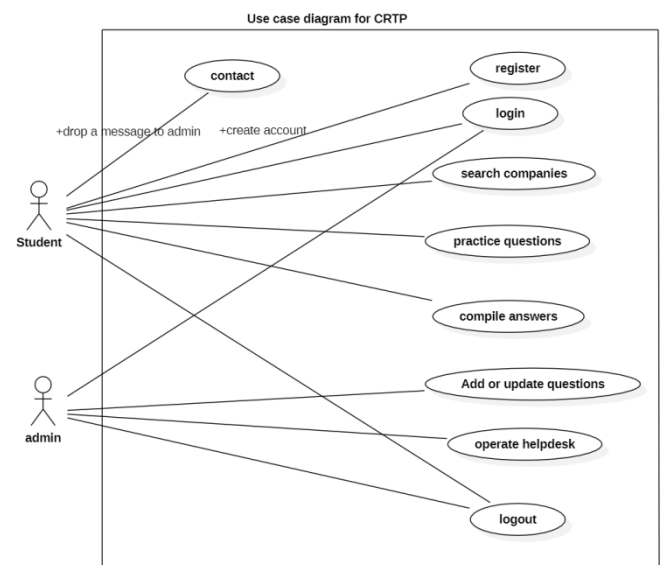


Fig -3: Use Case Diagram

The Admin is responsible for managing the system, including managing companies, users, and practice logs. The Admin can add or remove companies from the system, view and manage user accounts, and view practice logs.

The Compiler is a subsystem of the platform that allows users to attempt coding questions and generates output based on the code entered by the user. The Compiler supports multiple coding languages and provides a platform for users to practice their coding skills.

6. Flow Chart of Compiler

A flowchart diagram of a compiler is a graphical representation of the different stages involved in the compilation process of a computer program. The flowchart diagram provides a visual representation of the various steps involved in compiling a source code into executable code.

In the "Campus Recruitment Training Platform," the compiler plays an important role in allowing users to practice coding questions from different companies.

The compiler is a software component that takes in source code written in various programming languages, compiles it, and produces executable code. It provides an interface that allows users to write and run code directly from within the platform, without the need to install any additional software or development environments on their own computers.

The compiler supports multiple programming languages such as C, C++, Python, and Java. This allows users to practice coding questions in the language of their choice, and also provides a valuable opportunity for users to learn and practice new programming languages.

practice, and a user-friendly interface that allows users to track their progress.

Throughout the course of this project, we have implemented various technologies to create reliable and efficient system architecture, including Django as our framework of choice. We have designed and implemented several diagrams including use case, data flow, and system architecture to ensure the proper functionality of the platform.

Furthermore, we have identified several potential areas for future work, including the addition of a verbal and aptitude section, improving the user experience, adding more features to the compiler, and deploying the website. These future goals would enhance the platform's value for users and help them prepare for a wider range of recruitment tests.

Overall, the Campus Recruitment Training Platform has the potential to significantly benefit students who are preparing for campus recruitment. By providing a comprehensive and easy-to-use platform for honing technical skills, students can improve their chances of success and be better prepared to enter the job market

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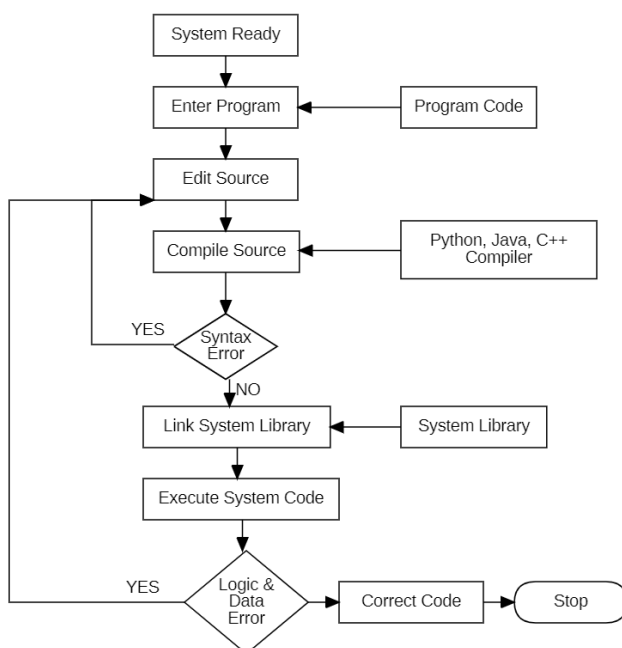


Fig -5: Flow Chart of Compiler

The compiler also provides an online IDE (Integrated Development Environment) that allows users to write, edit, and test their code directly in the platform. It provides a user-friendly interface with features such as syntax highlighting and error detection, making it easier for users to write and debug their code. Once the user has written their code, the compiler runs it and provides output to the user. The user can then view the output and check whether their code is correct or not. This process allows users to practice coding questions, test their code, and receive immediate feedback on their performance.

CONCLUSION

The "Campus Recruitment Training Platform" is a web application designed to help students prepare for campus recruitment by providing them with a range of resources to improve their technical skills. The website offers a variety of features including a compiler with support for multiple programming languages, previous year coding questions for

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