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Development of Web Application for Sharing Interview Experiences & Materials

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ABSTRACT- An interview is a structured conversation where one participant asks questions, and the other provides answers. In common parlance, the word "interview" refers to a one-on-one conversation between an interviewer and an interviewee. Every interviewee must know how interviews happen, what type of questions are asked in an interview, experience of placed student in a specific company, etc. We present a web application for sharing interview experiences and materials, it is a web application where placed students can share their interview experiences and best sources to prepare for the placement. Prior work on such web application consists of all the company's related stuffs. Instead, we created this for a particular institution, no need to prepare extra or unnecessary things. Students can prepare for those companies which comes in their institution. Since the whole web application consists of both interview experience and placement materials, it can be used for sharing as well as knowing the interview experiences of other students.

KEYWORDS: interview experience, placement, company specific interview, placement material

I. INTRODUCTION

Our web application provides a platform for interview preparations. It provides interview questions related to specific companies, materials to study for placement, way to contact placed students, we can ask queries, like the post, etc. There are many applications similar to this but there is no such application as of yet in the market which provides all these facilities for particular college. Our goal is to contribute to the field of career development by providing a simplified web portal and to make a product which is actually helpful in the field of study and is needed by every student in our college.

The purpose of this project is to gain an understanding of project management and to provide students with appropriate resources for Interview preparations. To update students about the previous year criteria, questions, proper material, way to contact placed students in specific company. For example, a student has to prepare for a specific company say infocepts, NICE systems so there is very less material available on internet to prepare for such companies. In such a situation, our platform will provide them correct path that from where to start preparing and for what to prepare, what not to prepare as their seniors will be posting their own latest experience. It would be much easier for students to prepare according to the expectations of the company from our college students. Like no one wants to

invest their time on unnecessary things or the things which are not going to be asked by the company.

Our web application is supported to eliminate and in some cases reduce the hardships faced by the students and faculties. Moreover, this web application will be designed for the need of the students in the university to gather information about previous year interview experiences in a smooth and effective manner. No formal knowledge is needed for the user to use this web application. Thus, by this all it proves it is user-friendly. It will help students as well as faculties in better utilization of resources that will be provided on this platform.

Innovation is the key to betterment of education and students in the University put a lot of efforts to get placement as job is the ultimate goal of almost every student. So, to reduce their efforts and as everyone is not able to communicate with seniors to get information of their interview experience, there should be a single platform where students can get all these stuffs like previous years interview questions, best resources to prepare, way to connect to the placed students, also company specific criteria, eligibility, package, etc.

Goals or Objectives:

- To get guidance directly from seniors.
- To provide students with appropriate resources for Interview preparations.
- To provide students a portal to start preparation for specific companies.

II. BACKGROUND

A. *Next.js:*

Next.js is a React framework that enables several extra features, including server-side rendering and generating static websites. React is a JavaScript library that is traditionally used to build web applications rendered in the client's browser with JavaScript. Developers recognize several problems with this strategy however, such as not catering to users who do not have access to JavaScript or have disabled it, potential security issues, significantly extended page loading times, and harm to the site's overall search engine optimization.

Frameworks such as Next.js sidestep these problems by allowing some or all of the website to be rendered on the server-side before being sent to the client. Next.js is one of the most popular frameworks for React. It is one of several recommended "toolchains" available when starting a new app, all of which provide a layer of abstraction to aid in common tasks. Next.js requires Node.js and can be initialized using Node Package Manager

B. *Node.js:*

Node.js is a cross-platform, open-source server environment that can run on Windows, Linux, Unix, macOS, and more. Node.js is a back-end JavaScript runtime environment, runs on the V8 JavaScript Engine, and executes JavaScript code outside a web browser.

Node.js lets developers use JavaScript to write command line tools and for server-side scripting. The ability to run JavaScript code on the server is often used to generate dynamic web page content before the page is sent to the user's web browser. Consequently, Node.js represents a "JavaScript everywhere" paradigm, unifying web-application development around a single programming language, as opposed to using different languages for the server- versus client-side programming.

C. *MySQL:*

MySQL is an open-source relational database management system (RDBMS). Its name is a combination of "My", the name of co-founder Michael Widenius's daughter My, and "SQL", the acronym for Structured Query Language. A relational database organizes data into one or more data tables in which data may be related to each other; these relations help structure the data. SQL is a language programmers use to create, modify and extract data from the relational database, as well as control user access to the database. In addition to relational databases and SQL, an RDBMS like MySQL works with an operating system to implement a relational database in a computer's storage system, manages users, allows for network access and facilitates testing database integrity and creation of backups..

III. LITERATURE SURVEY

"Ethical Interviews in Software Engineering,"- This paper states that first, by learning from previous experiences and listening to the authority of existing guidelines in the more mature field of medicine as well as in software engineering, a comprehensive set of checklists for interview studies was distilled. The elements of an interview study were identified and ethical considerations and recommendations for each step were produced, in particular with respect to anonymization. Important ethical principles are: consent, beneficence, confidentiality, scientific value, researcher skill, justice, respect for law, ethical reviews. The most important & crucial contribution of this study is the set of checklists for ethical interview studies. Future work is needed to refine these guidelines with respect to legal aspects and ethical boards.[1].

"Exposing Early CS Majors to Coding Interview Practices: An HBCU Case Study," Coding interview exercises are one notable practice. Aspects of this particular practice have been examined in academic settings. However, there is a lack of current studies that examine this type of practice at earlier stages of a CS curriculum. This article discusses a case study for exposing early CS majors to relative coding interview practices in the form of whiteboard problem solving. During the Fall 2020 semester, a PRE and POST virtual whiteboard problem-solving exercise were conducted on a CS2 and Object-Oriented Programming course at a Mid-Atlantic HBCU in the United States. The results revealed that majority of the students in both courses were able to complete the problem sets for both exercises successfully. Likewise, both groups expressed a favorable perception about these exercises, and exhibited adequate levels of comfort

for completing these exercises. However, both groups also showed adequate levels of anxiety. [2]

“Work in progress: alumni mentoring of engineers in a technical communication course”, This paper states that The purpose was to increase students' knowledge about the importance of technical communication at work, to teach them report writing skills, and to provide an ongoing networking opportunity with alumni. In this paper we have learned from our own experiences and listened to the authority of existing guidelines, in order to distill a comprehensive guide for interview studies. In particular, we suggest how to hands-on anonymize interview data in the transcription process.[3]

“Mock Interview Strategy: An action research study of administrator and teacher candidates”, This paper provides an idea to be an effective interviewee. In this, student survey were completed and results indicated that self-confidence was improved and sharing experience was worthwhile. This extension of this study could provide more information for improving candidate preparation courses and field experience. Students need to be aware of current trends. Therefore, to solve this problem, you can use a Web based application with MEAN Stack to make this process easier, more secure, and less error-prone. This system provides more efficient information[4].

“College Management Web Application System Using Mean Stack.”. This paper provides a perspective that it is important to communicate faster and easier between students using new formats such as mobile phone technology, as well as web application. The central idea of this project is the implementation of a web-based campus application for further development of educational institutions, educational systems and students. At the same time, searching for information is difficult to access and takes a long time to search on different existing websites.[5]

“Web development evolution: the assimilation of web engineering security”. This paper provides the purpose of the methodology is to integrate with an organization’s existing development process while providing the necessary structure to create and implement secure applications. Security should be designed into the application development process upfront through an independent flexible methodology that contains customizable components. [6]

"How to ace an interview and other job-hunting tips," This paper provides a study or research partner, job-search buddies hold each other accountable for what to do when looking for a job and preparing for an interview. “A buddy helps keep you focused” in terms of looking for employment, identifying new areas of employment to scout, applying for a position, preparing for an interview, and following up on an interview.[7].

"Experiences from conducting semi-structured interviews in empirical software engineering research" In this paper, , we have shown that semi-structured interviews are frequently used as a data collection technique within the field of software engineering. Semi-structured interviews involve high costs, and the quality of the collected data is related to how the interviews are conducted. In addition, it may be challenging to ensure that the interviewees experience the interview in a positive way.[8].

"Supporting student career development of undergraduate engineering," In this paper, findings from the Professional Engineering Pathways Study, a study of career placement processes of undergraduate engineering majors at six diverse US institutions will be presented, and small group discussions guiding the application of the findings to the institutions represented by the audience will be led. [9]

IV. MODULES

A. *Flow of the System:*

The user will first go to our web application. After this, user need to login on our portal. If user is new, then he/she needs to register first then login. Here, we have two different logins for user and for admin.

If the user is a student, then he/she will get two tabs interview experience and placement material. Students can share their interview experience if they are placed otherwise can get benefits from viewing placed student’s experience.

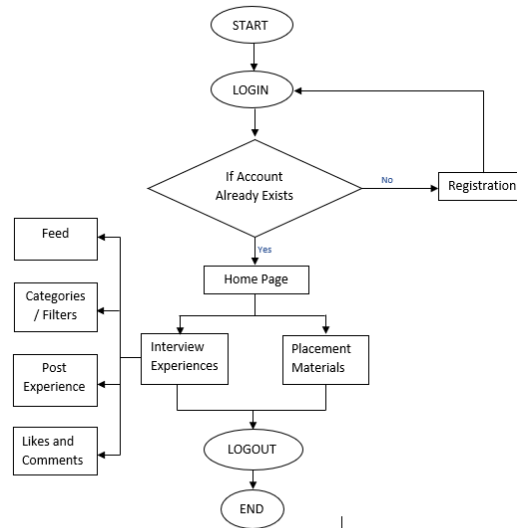


Fig.3.2 Flowchart for viewing interview experience page and placement materials page

On interview experience page, user will get to see two options i.e. feed and post experience. Students can like other students post also in case of any query they can comment on a post. Also, User can view posts according to their choice like most liked, year wise, most commented, company specific, according to packages, etc.

On placement material page, user will get the materials to prepare for placement that is uploaded by the admin section. Also, if placed students want to share some resources, then he/she can also share the links from the post experience section.

In case of admin, after successful login he/she will also get two tabs interview experience and placement material. Here, admin has access to upload the placement material.

B. Functional Modules:

The whole system is divided into two modules. User and Admin are the two modules. Both the modules are having different or the same functionalities to perform. The intent of our project is to provide students with appropriate resources for Interview preparations. To update students about the previous year criteria, questions, proper material, way to contact placed students in specific company.

1) User:

User has the ability to view and post the interview questions and placement material. User can do the following activities to visit and get benefits from our portal.

- a. User Authentication – Sign up and login
- b. Interview Experience – create feed and view feed
- c. Placement material – view materials and visit links

2) Admin:

Admin can do the following activities to visit our web application.

- a. Admin Authentication – Sign up and login
- b. Interview Experience – create feed and view feed
- c. Placement material – view materials, visit links and upload materials

V. APPLICATIONS

- The major application of this project is to provide a right path to follow for any kind of Interview preparation.
- Seniors can also share their notes and some helpful links from web which were really helpful to them when they were preparing and also can write a blog sharing their preparation journey or else can provide the links for the same.

- This can be used to build a strong connection between the alumni's and the students so that in future if they need any help they can connect to them directly and can resolve their doubts and problems

VI. RESULT & DISCUSSION

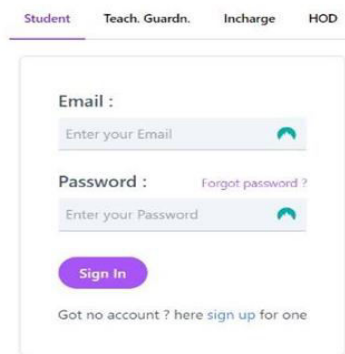


Fig. – 1 Login Page

This is the Login page of our web app where Students and Faculties can Login and be redirected towards the Home Page.

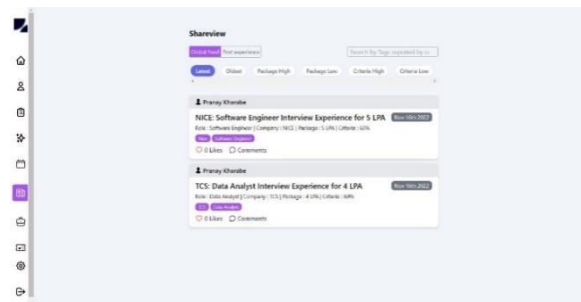


Fig. –2 Feed Page

This is the Feed page of our web application having a brief description regarding the company's interview experience.

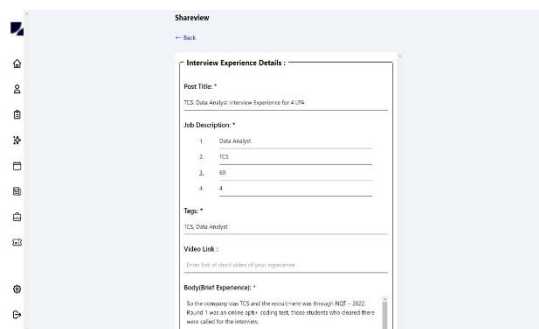


Fig.-3 Interview Experience Form with inputs

This is how our Interview Experience Form will look like after the inputs are given.

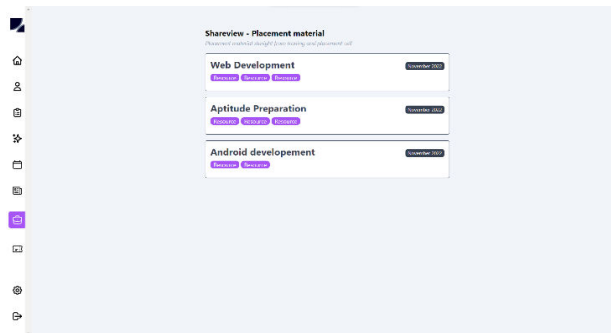


Fig. – 4 Description of Interview Experience

This is the page will show the description of particular company interview experience.

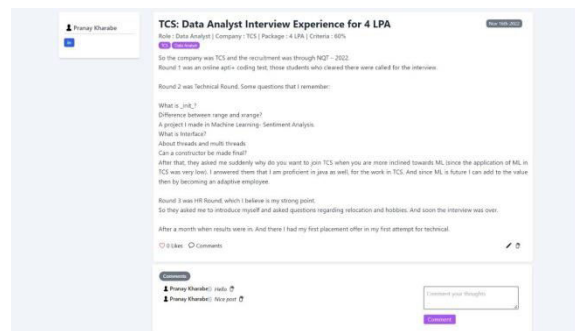


Fig. – 5 Materials Page

This is the Material Feed page of our web application having different course materials regarding placement preparations posted by T&P dept.

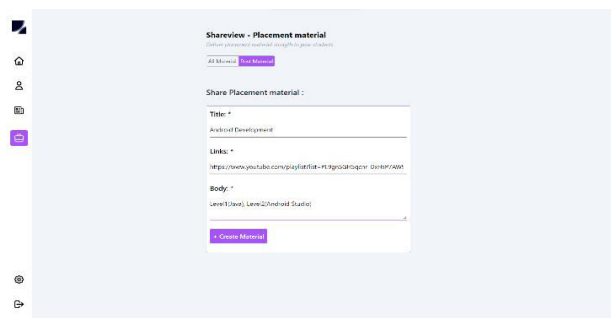


Fig.-6 Placement Material Form with inputs

This is how our Placement Material Form will look like after the inputs are given.



Fig. – 7 Details of Placement Material

This is the page will show the description of particular Placement Material Course in a Tabular Format

VII. CONCLUSION

This research paper helped us in the development of a web application for helping students with their placement preparation. It has helped us to explore various applications that were previously developed for the placement of students. With this paper and study, we developed an application for students who need assistance for their placement preparation.

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