Interview Experience Portal Using MERN Stack

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Abstract—**In colleges and universities, a number of companies arrive in campus to select candidates for a job position. These candidates are asked a variety of questions to find whether they fit for the given role or not. Each one has their own experience to tell about the interview process. However, their juniors as well as batch mates who aspire for the same company are curious to take reviews from them but they are unable to communicate with every candidate and this portal is aimed to fulfil this purpose by providing them the necessary resources for the interview preparation.**

Keywords— NodeJs, ExpressJs, ReactJS, Mongo DB, MERN Stack, Axios

I. INTRODUCTION

An interview experience portal is a platform that provides a space for job seekers to share their interview experiences with other job seekers. It can be useful to both the employers in addition to job seekers. By understanding what candidates think of their interview process, employers can identify areas for improvement and make changes to enhance the candidate experience. It is a wonderful resource for job seekers and employers alike, providing openness and insight into the interview process and helping to enhance the whole recruitment process.

The proposed system is a web page which consists of various features like particular company's interview questions, FAQs, HR questions and much more, it also has an online code editor where students can practice coding problems, it has a resume builder application which helps you to build a perfect resume for company interview .It also has a discussion forum where students can discuss and debate on latest trending topics and coding question doubts, it also has a experience section where students can read the experiences of selected persons in particular company.

II. LITERATURE SURVEY

This paper presents a portal site for information on arts and crafts along with interview videos on intellectuals. The interview videos are shared on this portal to show how an intellectual person acts in his interview by showing their gestures and mannerisms. Also along with the videos, this portal shares metadata on the subject, transcription of the interview and more things. [1]

This paper presents its mock interview platform (MIP) which provides its user with up to date information on its questions and feedback on the same. Also this platform utilizes the video interviews to analyze the emotions, posture and the body language of the interviewee. Also it gives AI feedback on every interview to get valuable feedback. From a technical point of view, this portal uses regression analysis of interviews to get the emotion, voice, expression and other things of the interviewee. [2]

In this paper, a review of various aspects of Mongo DB is discussed and key issues are framed .In future research can be done on any of the issues. So this paper opens some areas for research in Mongo DB database. [3]

NoSQL databases provide more scalability and heterogeneity when compared to RDBMS. Mongo DB, a NoSQL database provides high scalability, performance and availability. Mongo DB is a document based NoSQL database designed for Internet and web based applications. Data model of Mongo DB is easy to build on due to its inherent support for unstructured data. This paper describes advantages of Mongo DB when compared to other NoSQL databases.[4]

This paper proposes an approach to make interviews fair to all candidates. They provide a web application built using Node.js and Express.js which contains essential functionality required for an interview. The features in this portal includes a real-time collaborative code editor that uses an algorithm which allows users to code in real time with each other; a video/audio conferencing feature using Peer JS; a chat box for communication. A real-time collaborative whiteboard is also added that lets users design or draw diagrams. This feature is added so that students cannot switch between the tabs to avoid malpractices. [5]

The paper "A resume generator with augmented reality features" discusses about the essentials of resume for job seekers. In this paper creators have created a web based platform with AR features making it to name an A resume. This application helps job applicants to develop their resume from scratch, who are trying to to attempt ' one- size fits all ' approach. They have used Ar.js and A- frame as the main libraries. This web based ar platform puts links and QR codes in the resume which makes it easy for hiring manager to review the resumes. The generated resume is embedded with QR code and ar marks, and the QR code directly takes it to ar scanner website. In the web page users are also able to move scanner form marker to marker to view different content such as videos, photos and documents. [6]

The paper "Analytical Resume Builder - A web application for creating a resume which gives a best impact in competitive world" has developed a platform for helping students who are struggling to make their own resume. This platform not only provides them framework to and structures to build their own resume but also provides them the resumes of graduated students who are placed in companies, from which they can take reference and make their own. It also alerts them to future campus placements and industry drives. [7]

The paper online code editor on private cloud computing discusses about a web application running on the Private cloud computing. The editor's features work with web programming languages, e.g. HTML, PHP, CSS, and JavaScript. The editor is able to isolate programming languages by highlighting syntax of programs. [8]

This paper discusses about collaborative ide for students, where they can work in group to write multiple programs. Students frequently struggle to work together, share resources, review code, and discuss ideas, especially when the group is unable to agree on a time and place for in-person meetings. [9]

SCOPE OF THE PROJECT

The key benefit of the proposed application is that the end user can see the latest interview experiences and can also add their own experience to the benefit of others. Many more features like video conferencing with seniors for preparation guidance, live sessions between groups of students, a community where seniors can help guide juniors and company recommendations can be added. The community building aspect of the discussion forum can also aspire groups of students to work on similar projects and grow together.

OBJECTIVES OF THE SYSTEM

1. Providing a system which will help users to see the latest interview experiences.
2. This website also allows to add a person's own interview experience to help others.
3. This system also provides an option to build their resume using the resume-builder.

4. This network of contacts created by individuals with the goal of interview preparation creates a group of students for campus recruitment.

III. DESIGN AND IMPLEMENTATION

"Interview Preparation Portal" is a collection of many components aimed to make the process of interview preparation that much easier. The sections in the site includes the Interview collection section, the main section which shows all the interview experiences in a list manner and a resume-builder feature.

This is a web application that responds to screen size and may be used on desktop and mobile browsers. The MERN Stack, which includes Mongoose, ExpressJs, ReactJs, and NodeJs, is used to create this application. The front-end is developed using ReactJs which is a NodeJs library. The html element is used to render the many views of the program, which are constructed as separate components. Each component has a unique set of html tags called jsx elements that can be rendered in that component. Every component's functionality is taken care of by NodeJs. It includes methods and libraries that may perform the necessary functions for each component. The library ExpressJs, which serves as the application's server, is used to build the backend server.

The user data is kept in a Mongo DB database. Every time a user asks data from the database, the client sends a http request to the server, which then retrieves the requested data from the database and returns it to the user. Axios, a library that helps with client-server communication, and Mongoose, an ODM for Mongo DB, are used by the server to retrieve data from the database.
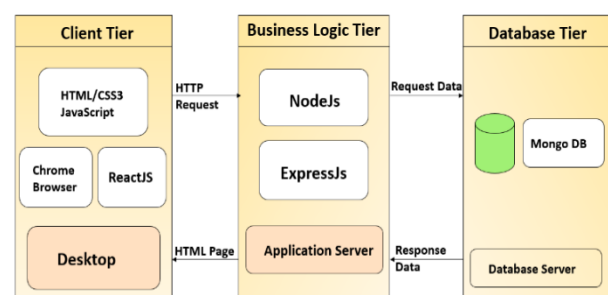
3.1 SYSTEM ARCHITECTURE

Figure 1 System Architecture of the application

The architecture of our application is based on the MERN Stack development model. The Client tier is written using HTML/CSS/JavaScript where ReactJS is used as the java script framework. This tier allows users to see and interact with the application.

The Business Logic Tier uses NodeJS and ExpressJs, and this tier is used to communicate between the client side and the database. This tier accepts the user requests from the client tier and performs the appropriate functions.

The Database Tier uses Mongo DB as the database to store all the crucial data of the application. This tier works in cooperation with the business logic tier as it responds with the HTTP requests that the client tier requires which is conveyed through the business logic tier.

3.2 PROPOSED SYSTEM

1. Interview Experience Collections:

The interview experiences' collections are done through asking a survey of questions and displaying the same in the main section. The form consists of questions like name, email, company conducting the interview, about the company, number of rounds, conduction of each round, questions asked and the overall experience of the interview. The form collects this data to display in the main section of the website. This part of the site was built with MERN stack where Mongo DB is used as the database to store the data. EJS was built for major part of this development. The main site. This part shows all the experiences collected in a listed manner. The experiences are taken from the database from the get data API applied on the database.

2. Resume-Builder:
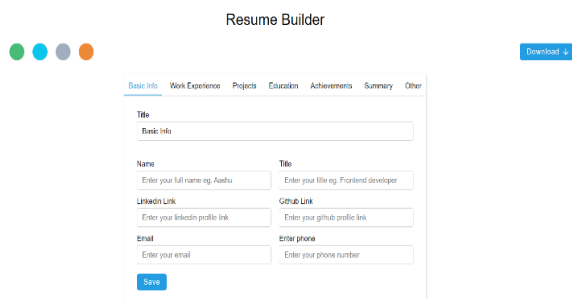
Figure 2 Resume Builder Portal

This part was added to reflect on improving the users' own CV while looking at these experiences. The resume builder takes your personal and professional details along with the user's skills and achievements to generate the CV. ReactJS is used to create the resume-builder portal.

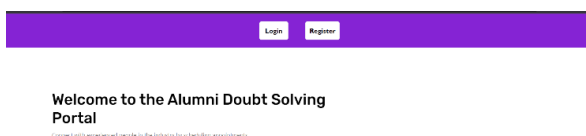### 3. Doubt Solving Portal:

Figure 3 Appointment-Scheduler for doubt solving

Register and Login option for companies was built. Profile page was created for the alumni of college from that companies. The scheduler is added so that students can take appointment of the alumni in their free time.
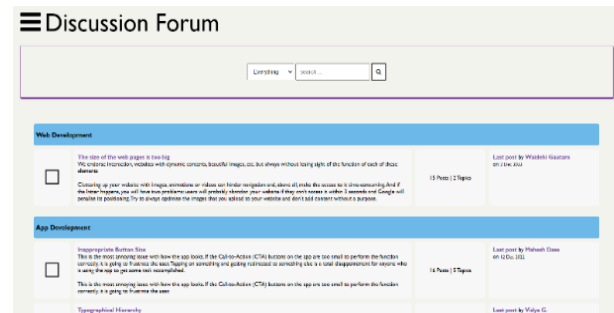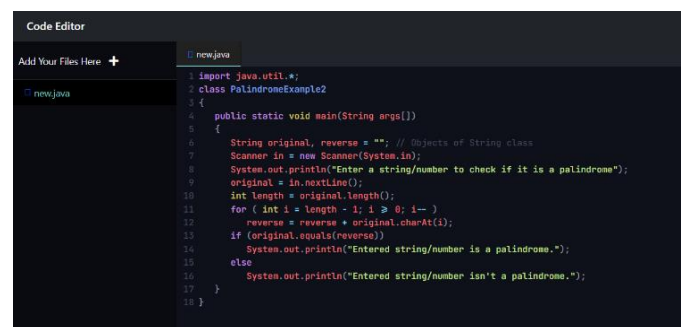
4. Discussion Forum:

Figure 4 Discussion Forum

A discussion forum is a platform included in our website where individuals can engage in online conversations and exchange ideas and information on a particular topic. Discussion forums offer a unique opportunity for users to connect with others who share similar interests and experiences, and to participate in lively debates and discussions. They provide a space for individuals to share their knowledge, opinions, and insights, and to learn from others.

5. Real Time Code Editor:

Figure 5 A real-time code editor is added which works simultaneously on more than one devices to code collaboratively.

This allows a group of students or a senior student and a junior student to code together. JavaScript is used to create a text area to write code which would be displayed on a link created by the user. The text area would be visible to users with the shared link only. The text area is supported with the codemirror.js library which allows the code sharing as well as different colors for different languages. In future scope, an IDE can be added for popular languages to run the code itself.

3.3 IMPLEMENTATION

The system's implementation involves elements of programming and fundamental logic. It includes the following, each of which is described in further detail.
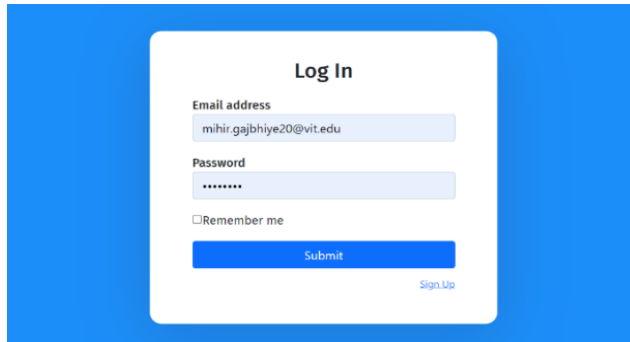
1. Registering/Validating users:

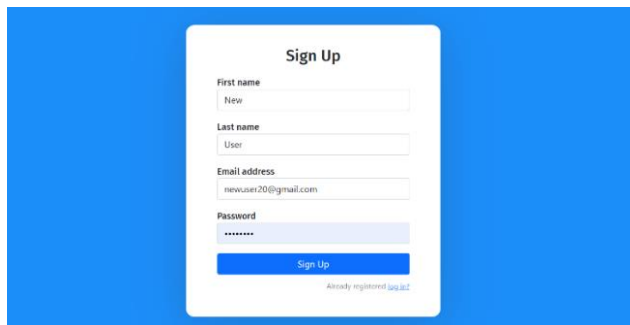**Figure 6** Login Page to login existing users

Figure 7 Signup page to register new users

This part of the system is used for verification of the users where new users are registered using the signup page(Fig 7) and the existing users can access the system using the login page(Fig 6).
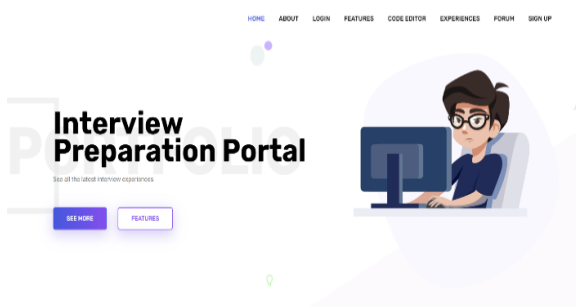
2. Homepage:

Figure 8 Front-page of the website.

This is the main front-page of the website which acts as the starting point for the website showing all the features the system provides.
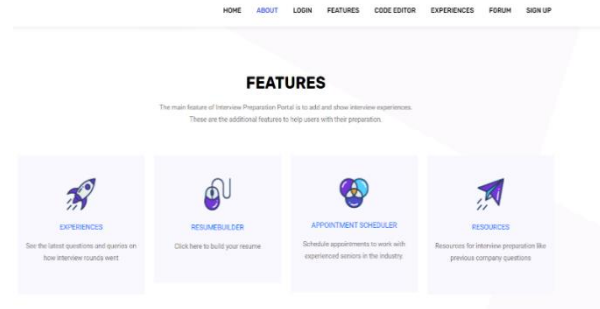

Figure 9 Features of the system

Above figure shows the about section of the website which provides context of the contents present inside the website.

3. Experience Portal:

Figure 10 Experience collection form

Figure 10 shows the experience collection form which collects students' data.

Figure 11 Experience portal

Figure 11 shows all the experiences collected by experience collection forms. The experiences are arranged in tabular format with attributes including candidate name, company name and interview type.

IV. CONCLUSION

This portal is a one stop solution for students who want to prepare for technical interviews of any companies from scratch. The portal provides all the necessities required by the students for preparation on one place whether it be senior's guidance to technical and HR questions. As more job seekers turn to these portals for information, employers will have to pay closer attention to the feedback they receive and make the required changes to improve their recruitment process. Overall, it has provided valuable service to make the interview process transparent and efficient.

V. FUTURE WORK

The proposed application's main advantage is that the user can see the latest interview experiences and can also add their own experience to the benefit of others. Many more features like video conferencing with seniors for preparation guidance, live sessions between groups of students, a community where seniors can help guide juniors and company recommendations can be added. The community building aspect can also aspire groups of students to work on similar projects and grow together

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