



## MOCK INTERVIEW PORTAL

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**Abstract.** The mock interview portal aims to provide a good and secure environment to conduct an interview. Interviews are crucial moments in one's career. Theoretical knowledge of interview questions isn't enough when you actually face an interview. Too often fear takes over our performance in job interviews. Mock Interviews are built on the premise that practice & preparation are crucial to get over your anxieties when attending an interview. As the saying goes - "practice makes perfect!" Mock interviews by our Mock Interview Portal gives students a platform to prepare, practice and experience firsthand how a real-life job interview feels and helps them to familiarize themselves with the interview environment beforehand and get over their anxieties. The mock interview portal aims to provide a good and secure environment to conduct an interview. It consists of two panels i.e, Admin panel and user panel. In the admin panel, the admin enters his/her credentials and enters the interview session. In the user panel, first the user registers for an interview then during the interview, he enters his credentials and login. In the meantime the user undergoes a login page after which he enters into the interview. To proceed further in an interview we create a chat window to display the questions which need to be answered by the user. In this way we create an easy communication channel. In this portal we added an extra feature called recording, wherein the entire interview will be recorded. The recorded session can be sent to higher officials to scrutinize.

**Keywords:** mock interview, Panels.

### 1. Introduction

#### 1.1 About Project

Interviews are crucial moments in one's career. Theoretical knowledge of interview questions isn't enough when you actually face an interview. Too often fear takes over our performance in job interviews. Mock Interview portal is built on the premise that practice & preparation are crucial to get over your anxieties when attending an interview. Mock interviews by our web Portal gives students a platform to prepare, practice and experience firsthand how a real-life job interview feels and helps them to familiarize themselves with the interview environment beforehand and get over their anxieties.

Mock interview portal contains following modules :

1. Login
2. Registration



3. Dashboard(Student dashboard, Admin dashboard)
4. Interview Process

## 1. LOGIN

A login page is a web page or an entry page to a website that requires user identification and authentication, regularly performed by entering a username and password combination. Logins may provide access to an entire site or part of a website. Logging in not only provides site access for the user, but also allows the website to track user actions and behavior. There is a quality login window because this is more secure than other login forms as in a normal login window there are multiple logins available so that more than one person can access to test with their individual login. But in this project there is only one login id i.e. administrator id and password by which a person enters the site. Hence it is more secure and reliable than previously used on-line test simulators. As soon as the website is opened we will be navigated to the login page. To get into the user panel first student should login with their credentials or if a student did not register till now they can register themselves and login to the user panel. At the login page, we will be able to see user email and password text areas and submit button to verify credentials.

## 2. REGISTRATION

Registration only happens the first time you access the system. It is a way to check your credentials. Every time after your initial registration, you will log on to the system using the username and password you created. The registration page is only for the users and not for the admin. Admin can directly login with his credentials. If a student did not register earlier he can register by clicking on the registration button.

Registration page contains following areas:

- Name
- Email Id
- Mobile No
- Password
- Re-enter password

By giving all the details mentioned above correctly you can register yourself as a student.

## 3. DASHBOARD

There are two Dashboards in this portal: Student dashboard and Admin dashboard



### **3.1 STUDENT DASHBOARD**

When a student logs into the portal he will be able to see the Student dashboard. It consists of a List of assignments that are given by the admin and it will have a button named attempt to redirect into the interview page. When we enter the interview page we will be able to see Question, start and stop buttons. When we start recording we will be able to see our video, when we click the stop button the recording gets stopped. After recording our video we can submit that for further evaluation. Then by clicking on go back we can redirect to the user panel. We can log out by using the logout icon.

### **3.2 ADMIN DASHBOARD**

Admin logs into the Admin dashboard using his credentials. Admin has the ability to give any permission to others under the Authentication and authorization section. Under the assignment section he can give the assignment title by using add tag and by using change tag Admin can change assignment. Under the assignment attempt section, the admin can search for an assignment that he wants to evaluate. Admin can even delete the attempts that are done by students. He can evaluate assignments by clicking on the link which is generated after a student recorded his answer. He can give a score based on the performance of the student. At the right side of the assignment attempt section we find an add tag to add an assignment attempt made by the student. Under the assignment question section we can add questions by choosing assignment titles. Next section is the user management section, admin has the power to delete users and add a user at any time.

## **4. INTERVIEW PROCESS**

Users can choose any of the assignments among all the given assignments. They can answer the questions provided by the admin. Every question should be answered within a given time limit. Finally click on the submit button to submit the recording. The recordings will be available to users as well as to admin. By watching their own performance they can improve themselves for the next interview or next assignment.

They will be able to assess their performance.

### **1.2 Objectives of the Project**

The main goal of the Mock Interview portal is to develop a portal that will help students to get prepared for job interviews.

## 1.3 Scope of the Project

Scope of this project is very broad in terms of other manually taking exams. Few of them are:-

- This can be used in educational institutions as well as in the corporate world.
- Can be used anywhere any time as it is a web based application(user Location doesn't matter).
- No restriction that the examiner has to be present when the candidate takes the test.

## 2. Literature Survey

### 2.1 Existing System

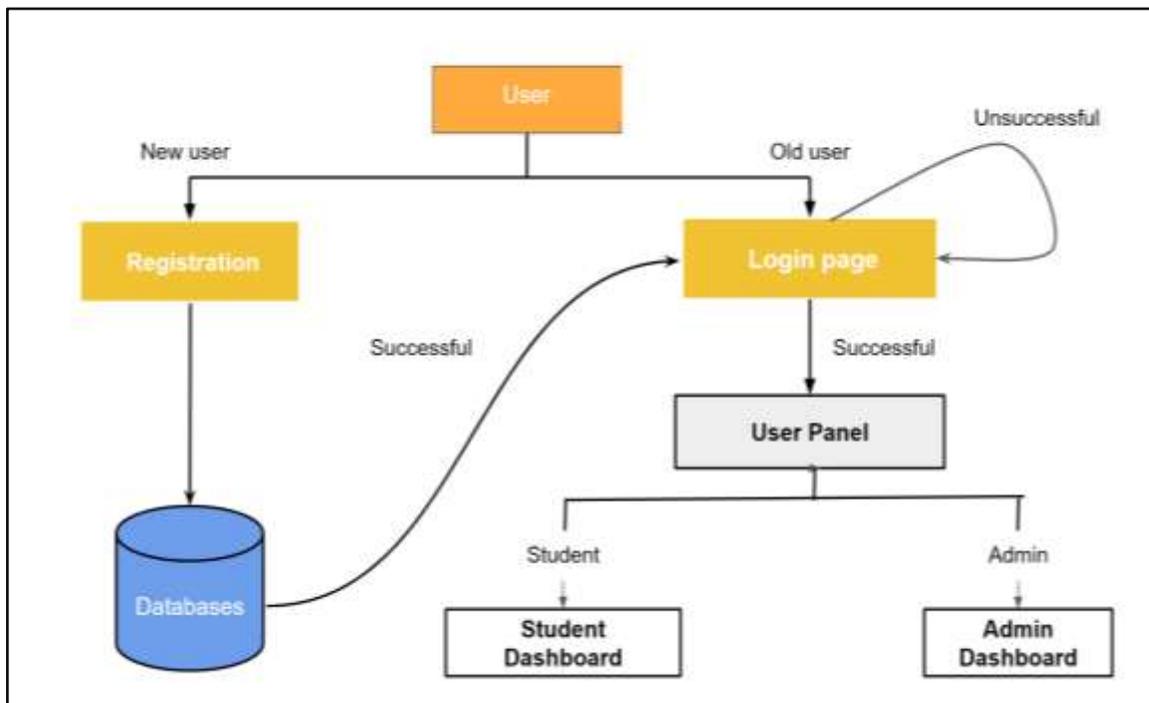
Existing system for mock interviews involves face to face interaction with the interviewer. The major disadvantage of this type is that the interviewer has to make time and schedule the interview which the student has to follow. If a student could not attend the interview for any reason he/she has to wait for the interviewer to schedule another meeting, this is a time consuming process and students can feel overwhelmed. The current system is very time consuming. If there are more students then it will be overwhelming for a single / less number of interviewers to handle all of them. Hence with increase in number of students the need for more interviewers also increases hence more interviewers have to be recruited, which increases overall cost.

### 2.2 Proposed System

The proposed system presents an efficient way to overcome the problems of existing systems. Through Mock Interview Portal students can attend interviews without the interviewer actually being present at the time of interview. Through this portal, students can write the test from any remote location. For attending interview students should login to their portal account which will lead them to a user panel where a list of interviews that student can attend are present. The candidate can choose the interview of his choice for the given list. Once the student selects the interviews he or she wants to attend questions will be visible on the screen one after other and student answer will be recorded in the video format and after submission of test the recorded video will be set to interviewer /admin how evaluates it and gives a constructive feedback which can be accessed by student. In this manner a single interviewer/admin can handle several students thereby reducing the cost of recruiting more interviewers as the number of students increases. Students can attend available interviews at any time feasible to them.

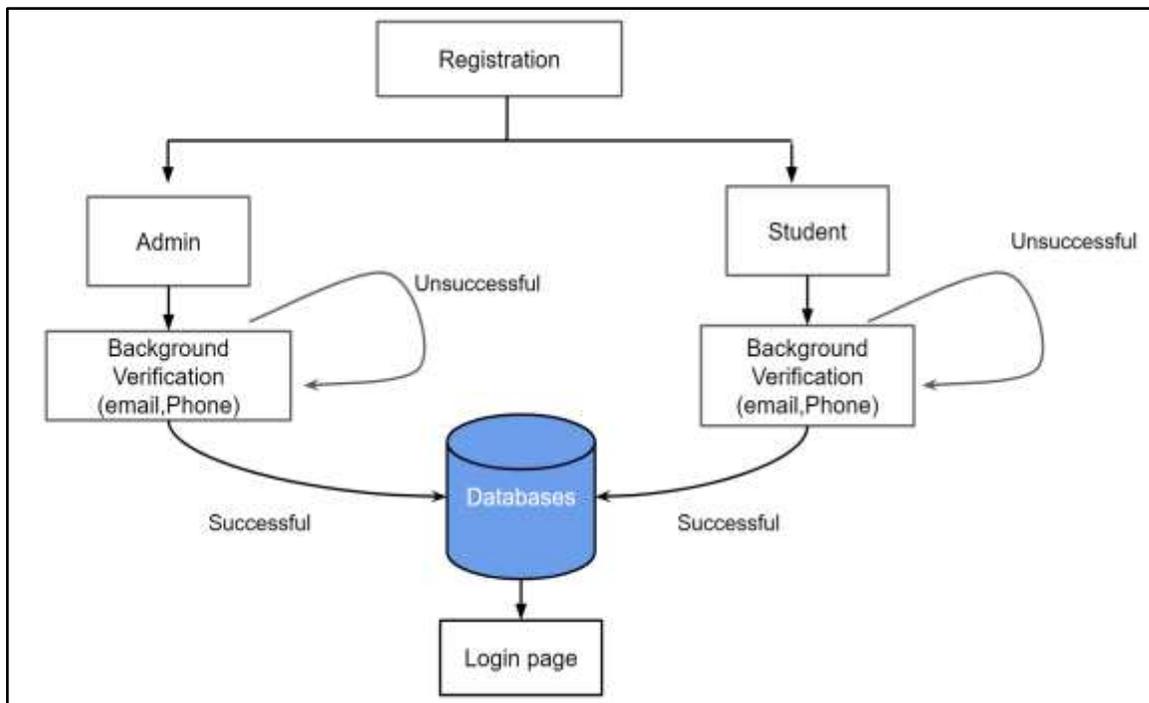
### 3. Proposed Architecture

#### 3.1 BLOCK DIAGRAM OF MOCK INTERVIEW PORTAL:



Users can enter the portal through the login page by entering correct login credentials given during registration. If the user is new to the portal he can register through the registration page. In the registration page the user will be asked to give his information and credentials and after verification of the details an account will be created for the user and he will be redirected to the login page. Registration only happens the first time you access the system. It is a way to check your credentials. Every time after your initial registration, you will log on to the system using the username and password you created. The registration page is only for the users and not for the admin. Admin can directly login with his credentials. After successful registration the details of the students will be stored in the database as shown in the **Figure 3.1**. After successful login if the user is a student then he will be redirected to the student dashboard if the user is an admin when he will be redirected to admin dashboard.

## 1. REGISTRATION PAGE :



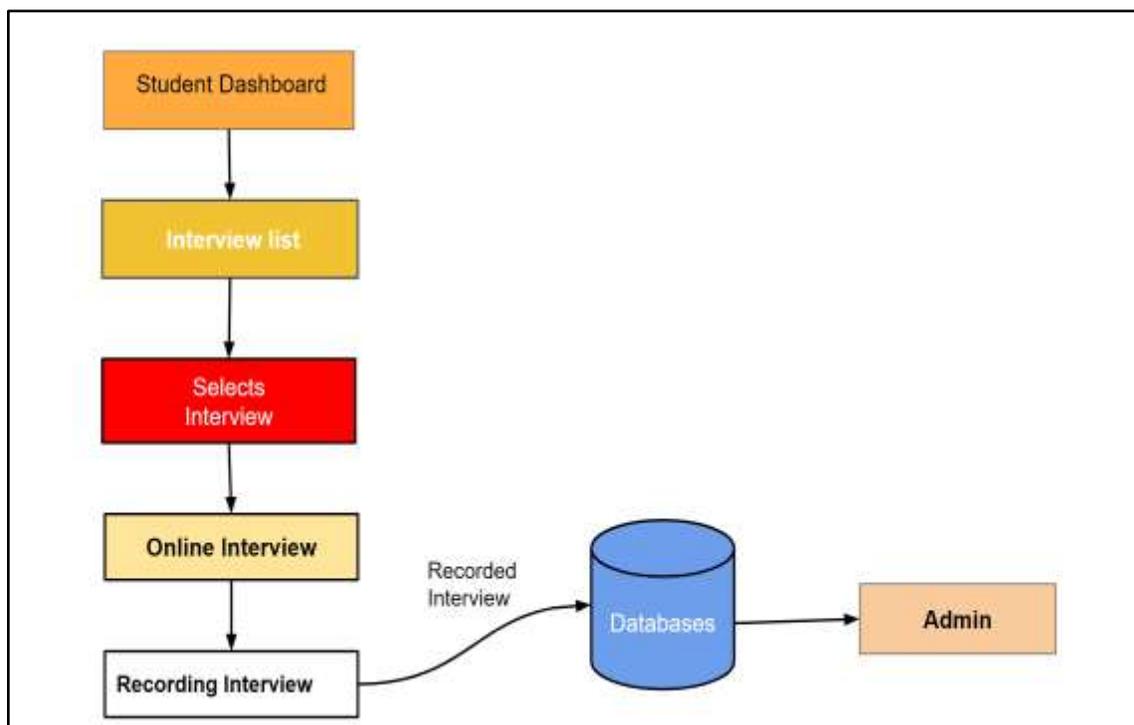
The registration page is only for the users and not for the admin. Admin can directly login with his credentials. If a student did not register earlier he can register by clicking on the registration button.

Registration page contains following areas:

- Name
- Email Id
- Mobile No
- Password
- Re-enter password

By giving all the details mentioned above correctly you can register yourself as a student.

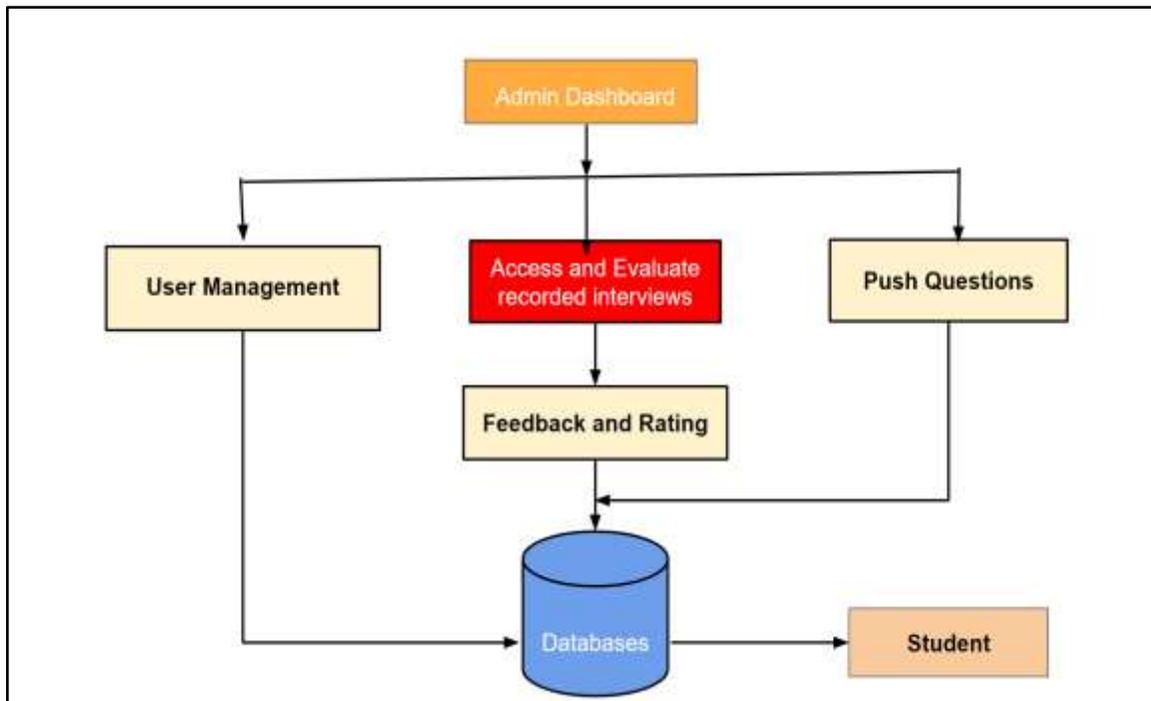
## 2. STUDENT DASHBOARD :



When a student logs into the portal he will be able to see the Student dashboard. In the student dashboard a list of interviews that a student can attend are available. Students can choose one of the interviews of his choice from the available interview that they would like to attend. After selecting the interview online interview will be started and questions will be visible on the screen for each question start and stop buttons will be available through which students

can record their answers. After students click on the submit button recorded answers will be stored in the database which will be accessible to the admin for an evaluation .

### 3. ADMIN DASHBOARD :



Admin logs into the Admin dashboard using his credentials. Admin has the ability to Manage user details admin has authority to add or remove any users. Admin can access the details of the user. Through the admin dashboard admin can access the recorded interview videos which were attempted by the students. After evaluating the video admin can give feedback and suggestions to respective students on the basis of their recorded interviews. Admin can add questions and create interviews that students can attempt.

## 4. Implementation

### 4.1 Algorithm

1. Import all the necessary libraries.
2. Define views / methods that are implemented in our model so that whenever a user requests for that functionality that particular method will be executed.

3. Whenever users request login, the signup application should take him to the respective pages.
4. If admin requests to login, add challenges then application should take him to the respective page.
5. Method to define functionality of attempting an interview where the user can accept the challenge given by the admin.
6. Method to get feedback where the user can view the feedback given by Admin to that student.
7. Method to view interviews through which the user can know whether he has already attempted or not. That is, if he attempted the interview, the result button would be visible to him, else if he did not attempt the interview then the attempt button would be visible.
8. Method to view users where admin can view number of registered users.
9. Method for User Login Action where the necessary credentials of the user are collected from the signup process.
10. Method for Sign Up action where user has to give the necessary details like username, email, password, contact number and address.
11. Method to Add new mock interviews where different interview ids will be generated for different mock interviews.
12. Method to accept a challenge where if code is successfully executed the user can submit and get a popup that your answer is accepted.
13. Method to get a recorded interview so that admin can receive the video and evaluate answers submitted by the user.
14. Method to give feedback to candidates.

## 4.2 Code Implementation

### 4.2.1 HYPERTEXT MARKUP LANGUAGE(HTML)

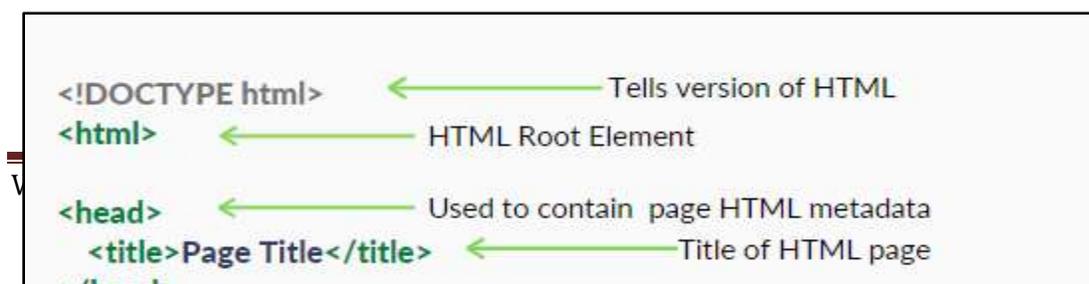
HTML stands for HyperText Markup Language. It is used to design web pages using a markup language. HTML is the combination of Hypertext and Markup language. Hypertext defines the link between the web pages.

A markup language is used to define the text document within a tag which defines the structure of web pages. This language is used to annotate (make notes for the computer) text so that a machine can understand it and manipulate text accordingly. Most markup languages (e.g. HTML) are human-readable. The language uses tags to define what manipulation has to be done on the text.

HTML is a markup language used by the browser to manipulate text, images, and other content, in order to display it in the required format. HTML was created by Tim Berners-Lee in 1991. The first-ever version of HTML was HTML 1.0, but the first standard version was HTML 2.0, published in 1999.

- **HTML PAGE STRUCTURE**

The basic structure of an HTML page is laid out below. It contains the essential building-block elements (i.e. doctype declaration, HTML, head, title, and body elements) upon which all web pages are created.





## 1. <DOCTYPE! html> :

This is the document type declaration (not technically a tag). It declares a document as being an HTML document. The doctype declaration is not case-sensitive. A doctype or document type declaration is an instruction that tells the web browser about the markup language in which the current page is written. The Doctype is not an element or tag, it lets the browser know about the version of or standard of HTML or any other markup language that is being used in the document.

## 2. <html> :

This is called the HTML root element. All other elements are contained within it. The <html> tag in HTML is used to define the root of HTML and XHTML documents. The <html> tag tells the browser that it is an HTML document. It is the second outer container for everything that appears in an HTML document followed by the <!DOCTYPE> tag. The <html> tag requires a starting and end tag.

## 3. <head> :

The head tag contains the “behind the scenes” elements for a webpage. Elements within the head aren’t visible on the front-end of a webpage. The <head> tag in HTML is used to define the head portion of the document which contains information related to the document. The <head> tag contains other head elements such as <title>, <meta>, <link>, <style> <link> etc.

## 4. <body>:

The body tag is used to enclose all the visible content of a webpage. In other words, the body content is what the browser will show on the front-end. The <body> tag in HTML is used to define the main content present inside an HTML page. It is always enclosed within <html>tag. The <body> tag is the last child of <html> tag. A body tag contains a starting as well as an ending tag.

### 4.2.2 PYTHON

Python is an interpreted, object-oriented, high-level programming language with dynamic semantics. 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. Python emerged three decades ago. Its inventor, Dutch programmer, Guido van Rossum, named it after his favorite comedy group at the time, Monty Python's Flying Circus. Since then, it has attracted a vibrant community of enthusiasts who work on fixing potential bugs and extending capabilities of the code. Python is known for being powerful, fast and for making programming more fun. Python coders can dynamically type variables without having to explain what the variable is supposed to be. Users can download Python at no cost and start learning to code with it right away. The source code is freely available and open for modification and reuse. Python adoption is widespread because of its clear syntax and readability. Used often in data analytics, machine learning (ML) and web development, Python yields code that is easy to read, understand and learn. Python's indentation requirements for source statements help make the code consistent and easy to read. Applications developed with Python code tend to be smaller than software built with programming languages like Java. Programmers generally have to type less code.

#### **4.2.3 AMAZON WEB SERVICES(AWS)**

Amazon web service is an online platform that provides scalable and cost-effective cloud computing solutions. AWS is a broadly adopted cloud platform that offers several on-demand operations like compute power, database storage, content delivery, etc., to help corporations scale and grow.

It is a platform that offers flexible, reliable, scalable, easy-to-use and cost-effective cloud computing solutions. AWS is a comprehensive, easy to use computing platform offered by Amazon. The platform is developed with a combination of infrastructure as a service (IaaS), platform as a service (PaaS) and packaged software as a service (SaaS) offerings.

- **APPLICATIONS OF AWS**

AWS enables businesses to build a number of sophisticated applications. Organizations of every industry and of every size, can run every imaginable use case on AWS. Here are some of the most common applications of AWS :-

**1. Storage and Backup :**One of the reasons why many businesses use AWS is because it offers multiple types of storage to choose from and is easily accessible as well. It can be used for storage and file indexing as well as to run critical business applications.

**2. Websites :**Businesses can host their websites on the AWS cloud, similar to other web applications.

**3. Gaming :**There is a lot of computing power needed to run gaming applications. AWS makes it easier to provide the best online gaming experience to gamers across the world.

**4. Mobile, Web and Social Applications :**A feature that separates AWS from other cloud services is its capability to launch and scale mobile, e-commerce, and SaaS applications. API-driven code on AWS can enable companies to build uncompromisingly scalable applications without requiring any OS and other systems.

**5 Companies using AWS:**Whether it's technology giants, startups, government, food manufacturers or retail organizations, there are so many companies across the world using AWS to develop, deploy and host applications. According to Amazon, the number of active AWS users exceeds 1,000,000. Here is a list of companies using AWS:

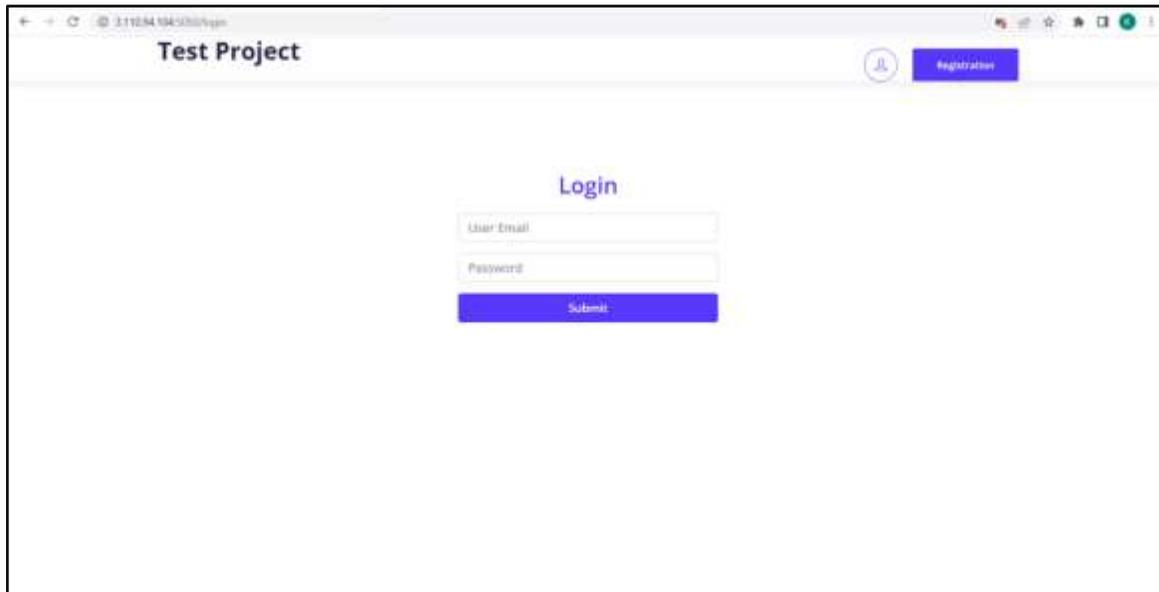
- Netflix
- Finra
- Johnson & Johnson
- Capital One
- Adobe
- Hitachi

AWS offers low, pay-as-you-go pricing with no up-front expenses or long-term commitments. We are able to build and manage a global infrastructure at scale, and pass the cost saving benefits onto you in the form of lower prices.

AWS provides a massive global cloud infrastructure that allows you to quickly innovate, experiment and iterate. Instead of waiting weeks or months for hardware, you can instantly deploy new applications, instantly scale up as your workload grows, and instantly scale down based on demand.

## **5. Result**

## 5.1 USER LOGIN PAGE



**Fig 5.1 User Login**

- The above figure shows a login page wherein the user enters his credentials and gets logged into account.
- As soon as the website is opened we will be navigated to the login page. To get into the user panel first student should login with their credentials or if a student did not register till now they can register themselves and login to the user panel.

## 5.2 USER REGISTRATION PAGE

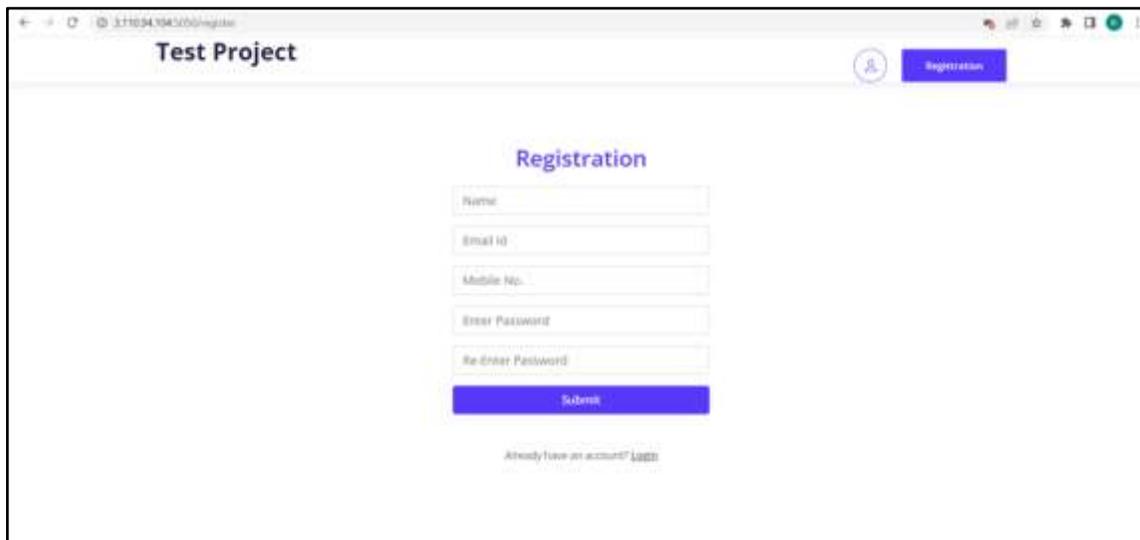
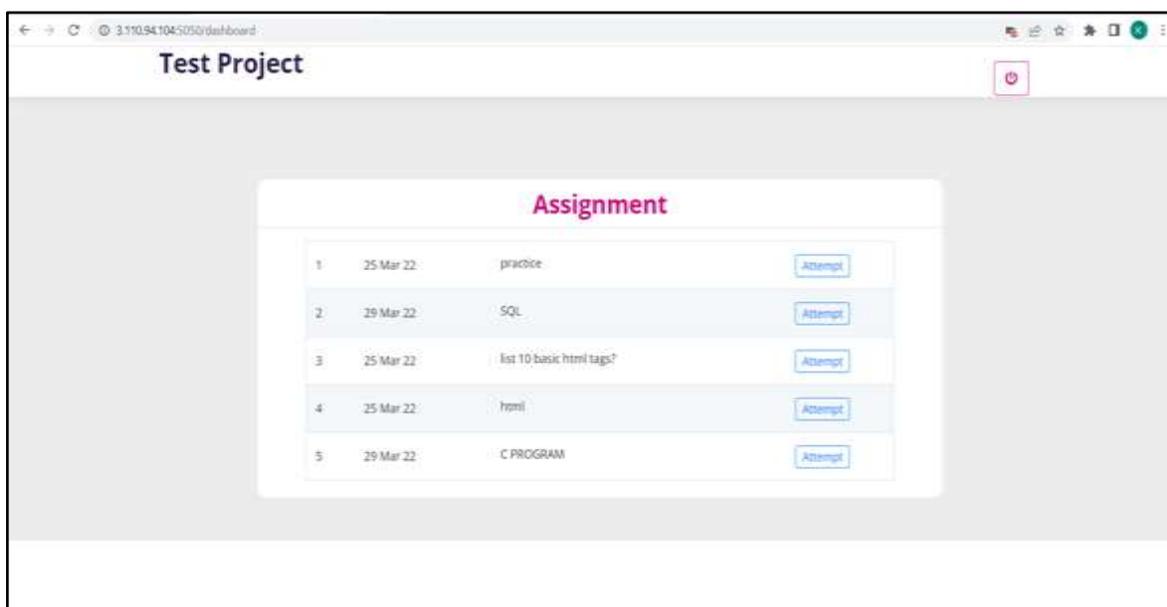


Fig 5.2 User Registration

- The above figure shows user registration where the user can register himself to appear in a mock interview.
- The registration page is only for the users and not for the admin. Admin can directly login with his credentials.
- Registration only happens the first time you access the system. It is a way to check your credentials.

### 5.3 USER DASHBOARD



**Fig 5.3 User Dashboard**

- The above figure illustrates the User Dashboard where the user attempts the test and after attempting the test and admin evaluation the result will be displayed in the user panel itself .
- When a student logs into the portal he will be able to see the user dashboard. It consists of a List of assignments that are given by the admin and it will have a button named attempt to redirect into the interview page.

## 5.4 MOCK INTERVIEW PAGE



**Fig 5.4: Mock Interview Page**

- The above figure represents the Mock Interview page where a user will start reciting the answer by clicking the start button and clicking the stop button after completing recitation.
- After answering the given question, the candidate will upload, then the recorded video will be displayed beside and press the submit button to submit the test.

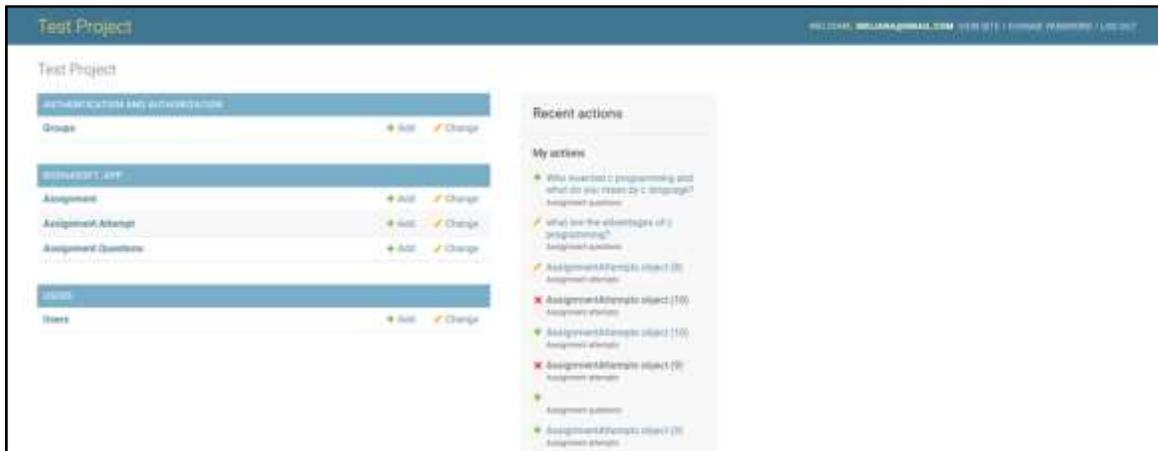
## 5.5 ADMIN LOGIN PAGE



**Fig 5.5: Admin Login**

- The above figure illustrates the admin panel wherein the admin enters his credentials and logs in to view the tests taken up by the users.

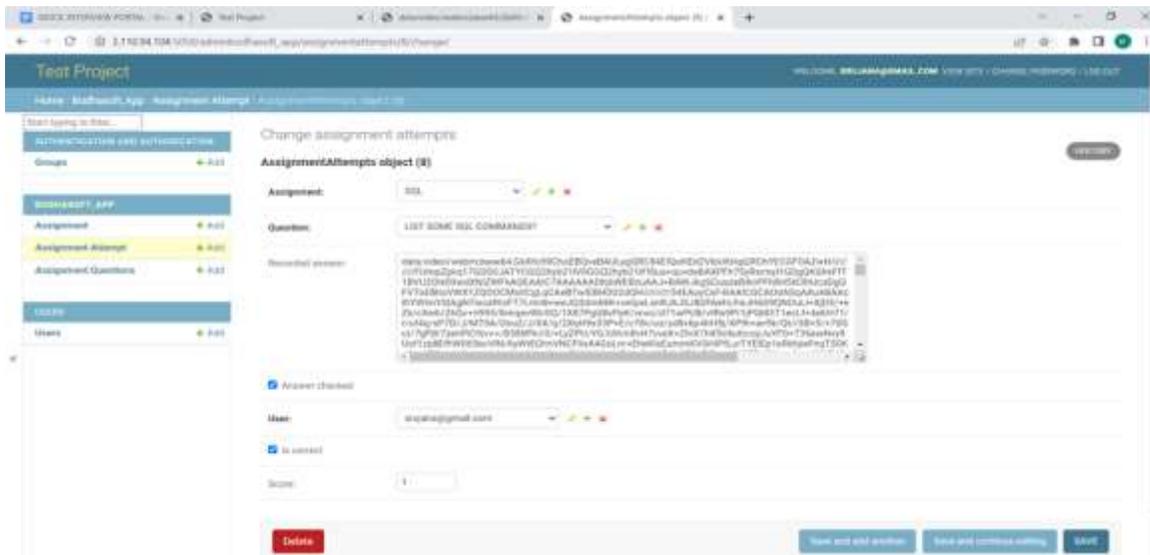
## 5.6 TEST ASSIGNMENT PAGE



**Fig 5.6: Test Assignment Panel**

- The above figure represents the Test Assignment Panel where the admin pushes the questions regarding specific subjects and posts the score for a particular assignment.

## 5.7 ADMIN ASSIGNING MARKS



**Fig 5.8: Admin assigning marks**

- The above figure shows the admin is checking the users video and assigning marks to them.

## 6. Conclusion

In this report, we presented an approach that allows the virtual user to take mock interviews in a comfortable way and assess their performance. The ultimate goal of our system is to help young people improve soft skills and technological skills pertinent to job interviews. In order to achieve seamless interaction, our system will recite the questions and record the entire session. Then the session will be evaluated by the admin and provide feedback. Further, the user can check their feedback in their respective panel and assess their performance and can overcome the mistakes. After creation of each separate panel our immediate next step was to integrate those panels and build into a single project. With the help of this project, we can help the underprivileged people receive feedback on job interviews that require a significant amount of soft skills and technological skills.

## 7. Future Scope

As a part of our future work, we might focus on two major areas. First, we could include the recognition module to allow it to detect social cues, such as voice features, eye gaze or laughter. Extending our current head gaze detection with eye gaze information will drastically increase the precision in detecting when the user is looking away. Eye gaze will also allow us to determine more subtle social cues. Secondly, we can create a path that the system reacts and adapts to the user's actions. For example, we could plan so that the evaluator knows the scenario and adapt the user's performance and emotional state.

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