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## Online Interview Assessment System

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**Abstract:** Although there are various ways to interact with one another, online meeting platforms are thought to be particularly crucial amid sudden natural disasters, epidemics, and pandemics. The Covid-19 Pandemic breakout and the emergence of a new normal led to an enormous increase in the creation of online meeting platforms to address the issue. These virtual meeting tools are being used for formal meetings in the commercial and educational sectors, in addition to informal get-togethers with friends and family. The organizations may use this application especially for interview purposes.

This Interview Assessment Application software, allows individuals to visually communicate with one another. Users of existing virtual video conferencing software experience issues with internet connectivity, which affects audio and visual quality. Various browsers and operating systems are incompatible with many applications. In this application, security plays a crucial role.

**Index Terms - Communication, Video Conferencing, WebRTC, Interview Process, OIAS(Online Interview Assessment System)**

### I. INTRODUCTION

Video conferencing is a communication system in which audio, video, and data indicators are transmitted electronically to allow real-time conversation between two or more participants. Videoconferencing employs audio and video telecommunications to connect people in diverse locations.

Understanding what is required for video conferencing and its application has become one of the most important subjects studied by numerous educational institutions and entrepreneurs. Nonetheless, the use of video conferencing for interviews has increased. Companies and candidates with easy access to services and comfort can potentially attend and participate in the meetings. We are developing a video conferencing application to aid in the smooth completion of the interview process. Using the WebRTC tool for our application would allow us to overcome some of the disadvantages associated with video conferencing, such as network issues, audio and visual quality, and so on.

### II. LITERATURE SURVEY

#### A. WEBRTC ROLE IN REAL-TIME COMMUNICATION AND VIDEO CONFERENCING

REAL-TIME COMMUNICATION (RTC) IS AN ENTIRELY NEW INDUSTRY STANDARD THAT BROADENS THE CONCEPT OF ONLINE BROWSING BY ENABLING ACCESS TO DATA IN DOMAINS LIKE SOCIAL NETWORKING, CHAT, AND VIDEO CONFERENCING. HOWEVER, THERE ARE NUMEROUS PROPRIETARY PROTOCOLS AND CODECS THAT CAN BE UTILISED TO CONSTRUCT MULTIPPOINT VIDEO-CONFERENCE SYSTEMS BUT ARE NOT EASILY SCALABLE OR COMPATIBLE. WITH THE USE OF JAVASCRIPT APIS (APPLICATION PROGRAMMING INTERFACES) AND CUTTING-EDGE OPEN TECHNOLOGY, WEBRTC (WEB REAL-TIME COMMUNICATION) OFFERS REAL-TIME COMMUNICATION CAPABILITIES IN VOICE, VIDEO, AND DATA TRANSMISSION VIA WEB BROWSERS.

#### B. A REVIEW OF MYFRAME- VIDEO CONFERENCING WEB APPLICATION USING WEBRTC

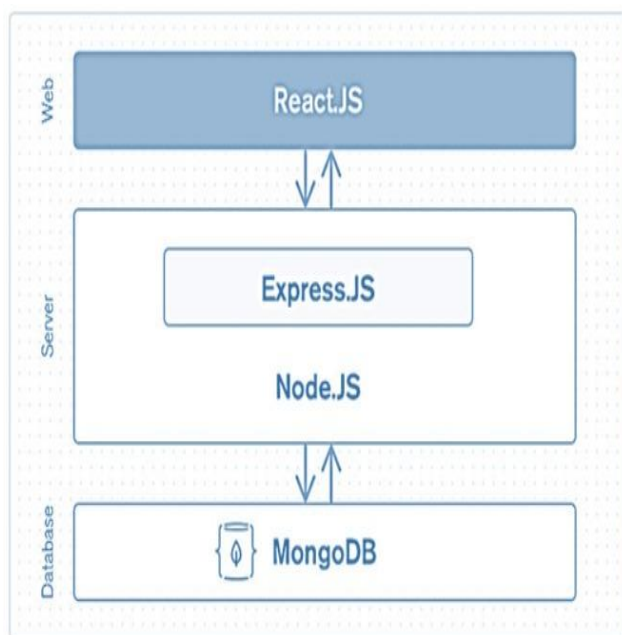
ONE OF THE MOST OFTEN USED TECHNOLOGIES IN HIGHER EDUCATION FOR ENCOURAGING LEARNERS' SELF-DIRECTED USE OF TECHNOLOGY IS VIDEOCONFERENCING, WHICH CAN BE ACCESSIBLE BY WEB, DESKTOP, OR MOBILE. DIFFERENT FORMS OF COMMUNICATION CAN BE USED WITHIN AND ACROSS DIVERSE LEARNING SITUATIONS TO AFFECT HOW INDIVIDUALS LEARN.

### III. PROBLEM STATEMENT

The "Online Interview Assessment System" project uses the MERN (MongoDB, Express.js, React.js, Node.js) stack to streamline and improve the interview process. With the help of this solution, interviewers can conduct interviews remotely while receiving real-time responses from candidates. A built-in real-time code editor and compiler are available for coding interviews, allowing applicants to write and test their code while being interviewed. The system also has an administrative panel where interviewers may set up interviews and candidates can receive links to interviews via email or other channels of communication. This project offers a practical and effective platform for conducting online interviews and assessments by utilising the strength of the MERN stack.

### IV. SYSTEM ARCHITECTURE

The present scenario includes a variety of hardware platforms. The operating systems are located above these hardware. The programmes developed on top of the operating systems connect with the hardware platform and underlying operating system through application programming interfaces, which are placed above the operating systems.



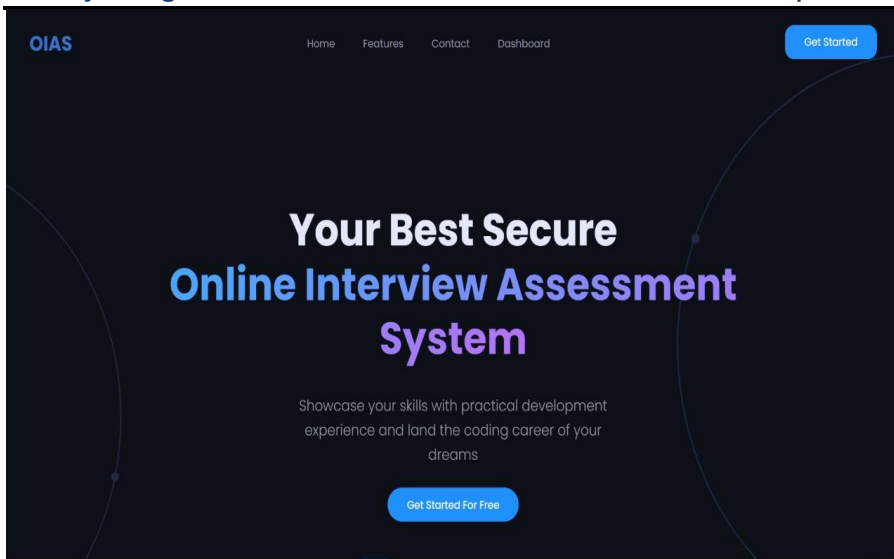
System Architecture

### V. RESULTS

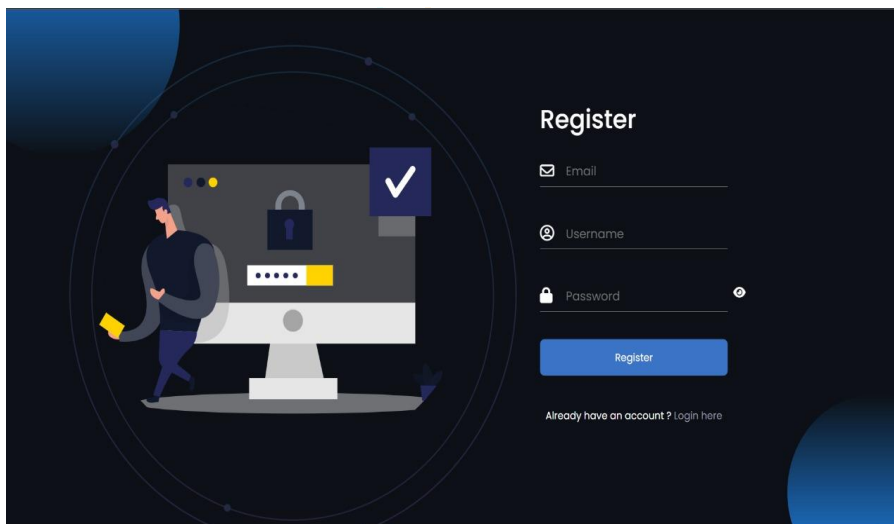
We proposed a system resembling a video conferencing application specifically designed to take interviews. The Online Interview Assessment system is easy to use with user friendly interface that can be accessible by users especially for the interview purpose.

The system can generate the meeting and conduct the tech interviews online while also providing the coding environment to the candidate. The real time code editor makes it easy to see the changes made at one end to the other at run time.

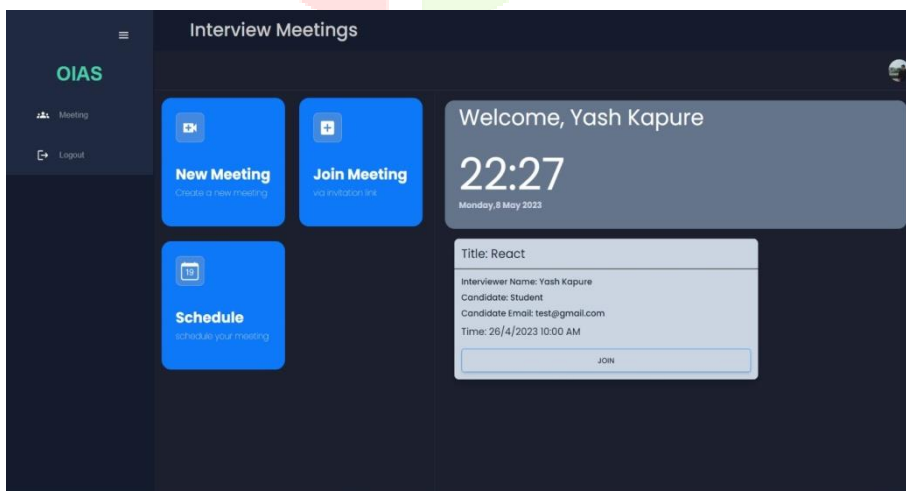
Here as some snapshots of Online Interview Assessment System:



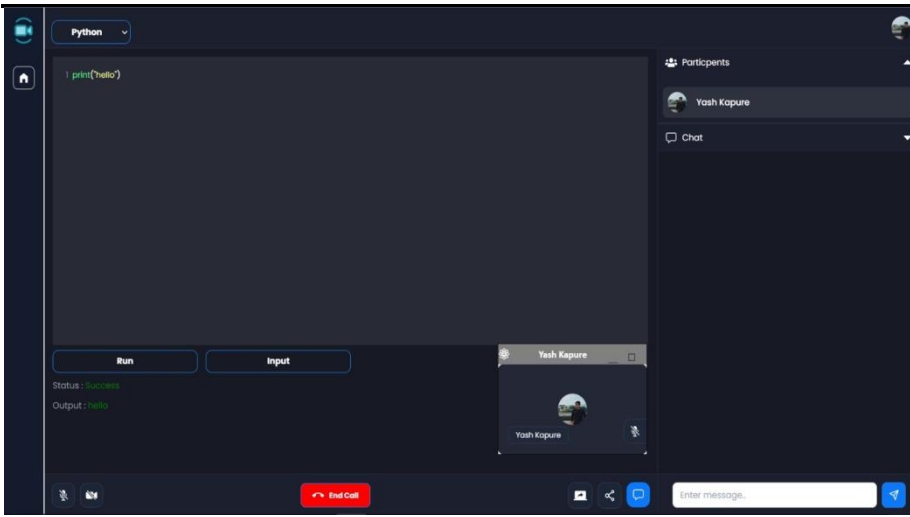
Home Page



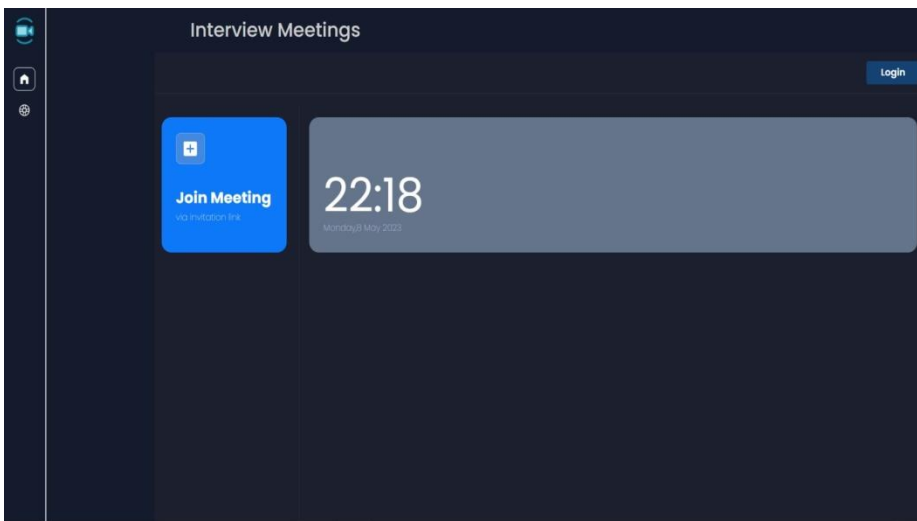
Log in module



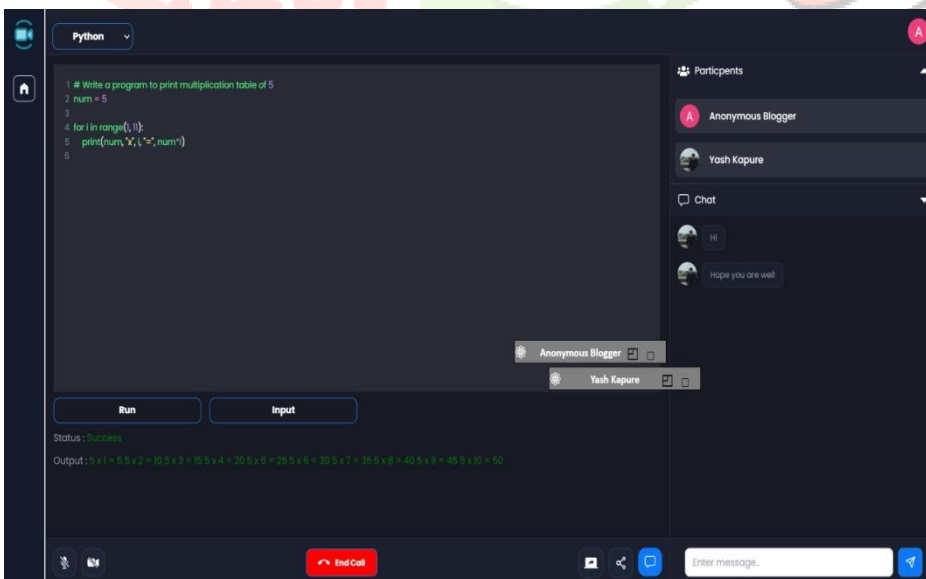
Admin user Dashboard



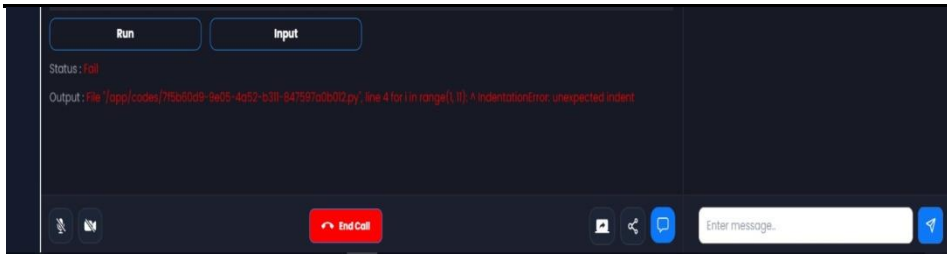
Meeting Window



Candidate user Dashboard



Real time code editor running successfully



Error detected for incorrect code

## V. ADVANTAGES

- The online interview assessment system is easy to use and comprehend. By logging in to the system, we are able to easily browse through the programme.
- The system offers a simple and interactive user interface that makes it user friendly.
- The system's primary advantage is that it is transparent to both end users. The modifications performed at one end are open at the other.

## VI. CONCLUSION

Video conferencing enabled professionals such as financial advisors, therapists, tutors, and lawyers to meet with their clients and conduct one-on-one consultations. We assessed the need for the Online Interview Assessment Application and conducted extensive studies and research. We understood the requirements of the Interview assessment and decided to create an application that would meet those requirements while also making the users' jobs easier.

## VII. FUTURE SCOPE

The future of Online Interview Assessment System is bright, as it is becoming evident that remote work and virtual meetings are here to stay. The following are some possible growth areas:

- It is possible to add functions like file sharing and screen recording as well as a compiler for query languages like SQL.
- The application will probably become even more cross-platform compatible in the future, enabling users to communicate with coworkers and clients across a variety of devices and platforms.
- Through the integration of AI and machine learning, various aspects of virtual meetings can be automated and improved, including transcription, translation, and noise reduction.

## VIII. ACKNOWLEDGEMENT

We would like to express our deepest gratitude to the individuals that have contributed to the completion of this research project. It brings us great pleasure to share the project report on "Online Interview Assessment System".

First and foremost, we would like to thank our guide, Dr. Priti Metange, for their guidance, support, and invaluable insights throughout the entire research process. Their expertise and encouragement have been instrumental in shaping this study and pushing us to excel.

We are also grateful to the members of our research team for their diligent work and collaboration. Their contributions and commitment have significantly enriched the quality of our findings.

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