

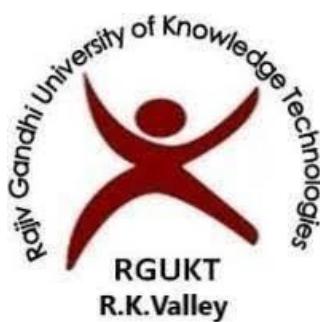
**Project report
on
INTERVIEWEASE**

**Project report submitted in partial fulfilment of the requirement for the award
of the Degree of
BACHELOR OF TECHNOLOGY
IN
COMPUTER SCIENCE AND ENGINEERING**

Submitted By

M.Likitha[R200105]

**Under the Esteemed Guidance of
Mr.R.Sreenivasulu, Assistant Professor**



RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES(AP IIIT)

R.K Valley, Vempalli, Kadapa(Dist) – 516 330

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

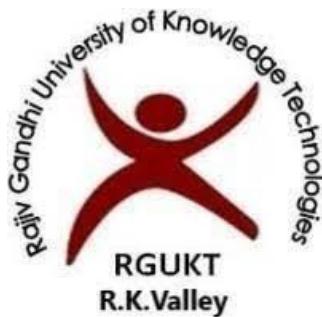
2025-2026

RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES (AP IIIT)

R.K Valley, Vempalli(M), Kadapa(Dist) – 516330

DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING

2025-2026



CERTIFICATE

This is to certify that the project report entitled “*INTERVIEWEASE*” being submitted by **M.LIKITHA** under my guidance and supervision and is submitted to **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING** in partial fulfilment of requirements for the award of Bachelor of Technology in Computer Science during the academic year 2025-2026 and it has been found worthy of Acceptance According to the requirements of the University.

Signature of Internal Guide
R. Sreenivasulu
Assistant Professor
Department of CSE

Signature of HOD
Dr.Ch. Ratna Kumari
Assistant Professor
Department of CSE

Signature of External Examiner

ACKNOWLEDGEMENT

I wish to express our sincere thanks to various personalities who were responsible for the successful completion of the main project.

I am grateful to **Dr. CH. RATNA KUMARI**, Head of the Department, for her motivation and encouragement in completing the project in specified time.

I express my deepfelt gratitude to **Mr. R. SREENIVASULU**, internal guide for his valuable guidance and encouragement which enabled me to successful completion of project in time.

I express my sincere thanks to all other faculty members of CSE Department for extending their helping hands and valuable suggestion when in need.

Finally, my heartfelt thanks to my parents for giving me all I ever needed to be a successful student and individual. Because of their hard work and dedication, I have had opportunities beyond my wildest dreams.

WITH SINCERE REGARDS

M.LIKITHA [R200105]

DECLARATION

Hereby declare that this project work entitled “***INTERVIEWEASE***” submitted to **DEPARTMENT OF COMPUTER SCIENCE AND ENGINEERING** is a genuine work carried out by me, for the fulfilment of Bachelor of Technology in the Department of Computer Science & Engineering during the academic year 2025-2026 under the supervision of my project guide **Mr. R. SREENIVASULU Assistant Professor, Department of Computer Science & Engineering** in **RAJIV GANDHI UNIVERSITY OF KNOWLEDGE TECHNOLOGIES(AP IIIT), R.K. Valley .**

WITH SINCERE REGARDS
M.LIKITHA [R200105]

ABSTRACT

The traditional recruitment process often suffers from inefficiencies, bias, and communication barriers between candidates and interviewers. To address these challenges, **InterviewEase – AI-Enhanced Interview Management Platform** has been developed as a comprehensive, intelligent system designed to streamline and enhance the entire interview experience. The platform integrates artificial intelligence with modern web technologies to automate scheduling, enable real-time video interviews, and provide AI-driven insights into candidate performance.

The proposed system is built using a **React-based frontend** and a **Spring Boot backend**, ensuring scalability, security, and responsiveness. It offers seamless real-time video communication using **WebRTC**, along with features like **interview recording, AI chat assistance, and skill-based evaluation**. The AI chatbot assists both interviewers and candidates by answering queries and offering adaptive interview question suggestions, while analytics modules evaluate candidate responses to provide data-driven feedback. This combination of automation and intelligence enhances decision-making accuracy and reduces recruitment time.

Experimental deployment of InterviewEase demonstrates improved interview management efficiency, better user engagement, and smoother coordination between candidates and recruiters. The solution not only simplifies recruitment workflows but also contributes to the growing trend of **AI-powered human resource management**. Future enhancements include integrating **natural language processing for sentiment and communication analysis**, and expanding to **multi-language and enterprise-level interview management**.

Keywords: InterviewEase, Artificial Intelligence, Recruitment Automation, WebRTC, Spring Boot, React, AI Chatbot, Real-Time Interviews, Candidate Evaluation.

INTERNSHIP DESCRIPTION

I am currently pursuing my internship at **TechVedika Pvt. Ltd.**, Hyderabad, as part of my academic curriculum. The internship has provided me with a valuable opportunity to gain practical industry experience in the field of **software development and artificial intelligence-based applications**.

During my internship, I have been working on the project titled “**InterviewEase – AI-Enhanced Interview Management Platform**”, which is also being presented as my **major project** for the fulfillment of my undergraduate degree requirements. The project is being developed under the mentorship of professionals at TechVedika, who have guided me throughout the design and implementation stages.

TechVedika Pvt. Ltd. is a technology solutions company that specializes in providing innovative software products and services in areas such as **AI/ML, cloud computing, data analytics, and full-stack application development**. The organization focuses on delivering intelligent digital solutions to global clients using cutting-edge technologies and agile methodologies. Working in such an environment has significantly enhanced my understanding of professional software development practices, collaborative teamwork, and real-world problem solving.

The **InterviewEase** platform developed during this internship aims to simplify and modernize the interview process through AI-driven automation. It integrates modules such as **real-time video interviews (WebRTC), role-based dashboards for interviewers and candidates, AI-based mock interviews, chatbot assistance, and intelligent feedback generation**. My contribution primarily involved designing the system architecture, developing the frontend using **React.js**, building the backend services with **Spring Boot**, and integrating APIs for seamless data flow between components.

This report represents the complete documentation of the project I have undertaken during my internship at **TechVedika Pvt. Ltd.**, and it demonstrates how my academic learning has been effectively applied to develop an innovative, industry-oriented solution.

OFFER LETTER



Agile in Transformation | Ahead in Technology

Tech Vedika Software Pvt Ltd.

CIN: U72900TG2010PTC070935



Date: 15-Sep-2025

INTERN OFFER LETTER

Ms. Bathini Venkata Tejasri,
Email ID: rr200091@ruktrkv.ac.in
Mobile: 91 8187004952

Dear Tejasri,

We are pleased to formally offer you a position as an Intern at Tech Vedika Software Pvt Ltd as per the following terms and conditions:

1. Your primary area of operation will be as an intern from date of joining 22nd Sep 2025 with a stipend of Rs.12,000 per month.TDS amount will be deducted based on your IT investment declaration.
2. On successful completion of your internship and based on your performance meeting/exceeding expectations, you will be absorbed as Associate Software Engineer (Band E2) along with formal employment benefits including Medical Insurance, Provident and Gratuity Fund etc.
3. By accepting this offer letter, you are committing to work for Tech Vedika for a minimum period of 24 months post completion of your internship period.
4. You are required to give a minimum notice of one month or salary in lieu thereof, in case you wish to leave the organization any time during the tenure.
5. At the time of joining, you are required to submit the following:
 - Copy of highest academic degree
 - Copy of age Certificate
 - ID Proof (Driving License, Voter Id, Passport)
 - Pan Card and Aadhar are mandatory
 - Provide two references (name and contact information)
 - Two latest passport size photographs
6. Upon joining Tech Vedika Software Private Limited, you will be required to sign a confidentiality agreement.

I look forward to a mutually rewarding working relationship and to your many contributions to the team's success.

Sincerely,
For Tech Vedika Software Pvt Ltd.

Sai Sridhar Sangineni,
Managing Director

I accept the offer as detailed above:

Signature

Date

Reg Office:Tech Vedika Software Pvt Ltd My Home Hub, 1st Block, 2nd Floor, Hyderabad - 500018 INDIA
Tel: 91-40-4222 4000, www.techvedika.com

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Chapter – 1

INTRODUCTION

The rapid advancement of **Artificial Intelligence (AI)** and **Machine Learning (ML)** has significantly transformed the recruitment and human resource (HR) sectors in recent years. Traditional interview and hiring processes often face challenges such as time inefficiency, communication gaps, subjective evaluation, and lack of coordination between candidates and recruiters. These limitations have created the need for an intelligent, automated, and collaborative system that can streamline the end-to-end interview process while ensuring fairness, accuracy, and improved decision-making.

InterviewEase – AI-Enhanced Interview Management Platform is designed to address these challenges by providing an all-in-one intelligent solution for conducting, managing, and analyzing interviews efficiently. The platform integrates cutting-edge web technologies with AI-driven components to enhance the recruitment workflow through automation and real-time communication. It aims to simplify the interviewing process for both interviewers and candidates, reducing manual effort while increasing transparency and performance analysis.

InterviewEase leverages a **React.js-based frontend** and a **Spring Boot-based backend** to deliver a seamless, secure, and scalable user experience. It integrates **Jitsi Api** for real-time video communication between candidates and interviewers, allowing for smooth, high-quality virtual interviews. Additionally, it provides **AI chatbot assistance** to guide users, automate FAQs, and suggest context-based interview questions dynamically. The system also incorporates intelligent analytics modules to assess candidate performance through behavioral cues, response timing, and skill-based metrics.

This project represents a significant step toward creating a smart, AI-empowered recruitment ecosystem. By integrating **real-time video interviews, automated assistance, and AI-based evaluation**, InterviewEase not only enhances operational efficiency but also brings fairness and objectivity to modern hiring practices. Future enhancements aim to integrate **Natural Language Processing (NLP)** for sentiment and communication analysis, **automated skill gap detection**, and **multi-language support** to expand the platform's global applicability.

1.1 INTRODUCTION TO INTERVIEWEASE

In the modern digital era, recruitment and talent acquisition have evolved beyond traditional in-person interviews. Organizations today seek smarter, faster, and more reliable ways to evaluate candidates, especially with the growing trend of remote work and global hiring. Manual scheduling, coordination issues, and subjective evaluation methods often lead to inefficiency and bias in the hiring process. To overcome these limitations, intelligent interview management systems powered by **Artificial Intelligence (AI)** have emerged as a revolutionary solution.

InterviewEase – AI-Enhanced Interview Management Platform is designed to automate and simplify the interview process by integrating AI-driven insights, real-time communication, and user-friendly interfaces. It serves as a bridge between candidates and recruiters, providing a centralized platform for scheduling, conducting, and analyzing interviews seamlessly. The platform ensures a smooth experience for both parties by combining automation, analytics, and communication technologies.

InterviewEase integrates the power of **React.js** for an interactive frontend and **Spring Boot** for a secure, scalable backend. It uses **Jitsi Api** for real-time video conferencing, enabling high-quality virtual interviews with options for recording and playback. Additionally, the platform features an **AI-powered chatbot** that assists candidates and interviewers during the process, providing instant guidance, answering questions, and even suggesting interview questions based on job roles and skill sets.

By combining AI assistance, live interviews, and analytics, InterviewEase transforms traditional hiring into a **data-driven and intelligent recruitment experience**, improving both efficiency and candidate engagement. It eliminates repetitive tasks, reduces bias, and empowers organizations to make smarter hiring decisions.

1.2 PROBLEM STATEMENT AND OBJECTIVES

Problem Statement:

Traditional recruitment processes often involve complex scheduling, subjective evaluations, and inconsistent communication between candidates and interviewers. These inefficiencies result in delays, poor candidate experience, and higher recruitment costs. Additionally, in remote hiring scenarios, the lack of real-time collaboration and performance analytics limits effective decision-making. There is a need for an intelligent system that integrates automation, video communication, and AI-based analysis to create a streamlined and transparent interview process.

InterviewEase – AI-Enhanced Interview Management Platform aims to address these challenges by building a comprehensive solution that automates scheduling, facilitates real-time interviews, and leverages AI to provide actionable insights into candidate performance. The platform bridges the gap between human resource management and intelligent automation, enhancing both efficiency and accuracy in hiring decisions.

Project Objectives:

- To design and develop a **full-stack interview management platform** using React.js (frontend) and Spring Boot(backend).
- To integrate **Jitsi** for seamless, high-quality **real-time video interviews** with recording support.
- To implement an **AI chatbot** that interacts with candidates and interviewers for automated assistance and guidance.
- To provide **automated scheduling and notification systems** for interview coordination.
- To analyze interview sessions using **AI-driven insights**, including behavioral and performance evaluation.
- To ensure secure data management, authentication, and role-based access for all users.
- To create an intuitive and responsive user interface for easy navigation and accessibility.
- To deploy and test the platform for **real-time performance and scalability** under practical conditions.

1.3 APPLICATIONS AND SCOPE

Real-World Applications:

The InterviewEase platform has wide-ranging applications across various industries and recruitment scenarios, including:

Corporate Recruitment: Enables HR departments to schedule, conduct, and evaluate interviews for multiple candidates efficiently.

Educational Institutions: Facilitates placement interviews, mock interview sessions, and automated evaluation for students.

Freelance and Remote Hiring: Allows organizations to assess freelancers or remote employees through live virtual interviews.

Consultancy and Staffing Agencies: Simplifies coordination between clients, candidates, and consultants within a single platform.

Government and Public Sector Recruitment: Ensures transparency, efficiency, and equal

opportunity in the hiring process.

Scope for Research and Development:

The architecture of InterviewEase is modular, extensible, and adaptable for future AI-driven enhancements. Possible research and development extensions include:

- Integration of **Natural Language Processing (NLP)** for sentiment and communication tone analysis.
- Incorporation of **Facial Expression Recognition (FER)** for emotion-based evaluation during interviews.
- Development of **automated scoring algorithms** to assess responses based on clarity, confidence, and technical accuracy.
- Expansion to **multi-language support** for global recruitment.
- Integration with **AI-based resume analysis** to recommend best-fit candidates for roles.
- Deployment on **cloud infrastructure** to support large-scale enterprise usage and data security.
- Addition of **AI-driven bias detection modules** to ensure fair and ethical recruitment practices.

Conclusion of Introduction

In conclusion, **InterviewEase – AI-Enhanced Interview Management Platform** represents a transformative step in modern recruitment technology. By combining **real-time video interviews, AI-powered chatbot support, and data-driven evaluation**, the system eliminates inefficiencies in traditional hiring workflows. Its scalable architecture, robust backend, and intelligent automation make it a reliable solution for organizations of all sizes. As AI continues to reshape the future of human resource management, InterviewEase positions itself as a next-generation recruitment platform, fostering efficiency, fairness, and innovation in the hiring landscape.

Chapter – 2

MODEL BUILDING AND DEVELOPMENT

The core objective of InterviewEase is to design and build a **full-stack, AI-driven interview management system** that simplifies and enhances the recruitment process through automation, real-time interaction, and intelligent evaluation. The platform integrates live video interviews, AI-powered feedback, role-based dashboards, and resume matching to support both candidates and interviewers in a secure and scalable environment.

The development process included five major stages:

1. Gathering system requirements and platform specifications
2. Frontend UI/UX design and implementation
3. Backend API development with business logic and AI integration
4. AI service creation for interview evaluation and chat assistance
5. Deployment, model integration, and system testing

Each stage was implemented carefully to ensure the platform is usable, maintainable, and supports the key features of InterviewEase.

3.1 Gathering Requirements & Data Sources

Before development, requirements were collected by studying recruiter workflows, candidate experiences, and interview logistics. The data sources used include:

- **User roles:** Candidate, Interviewer, Administrator
- **Interview data:** Live session logs, resume uploads, candidate responses
- **AI datasets:** Pre-existing interview question-answer pairs, candidate evaluation metrics
- **Notification data:** Email schedules, reminders

These inputs shaped modules such as scheduling, video sessions, AI evaluation, resume matching, and dashboards.

3.2 System Architecture and Design

InterviewEase uses a **three-tier architecture**:

- **Frontend (React.js)**: Provides role-based interfaces, live video call UI, and AI chat widget
- **Backend (Spring Boot)**: Manages authentication, scheduling, interview logic, AI service communication
- **Database (MySQL)**: Stores users, interviews, feedback, chat logs

Architecture flow:

User → Frontend (React) → Backend APIs (Spring Boot) → Database & AI Microservice (Flask) → Frontend visualization

This separation ensures the system is modular, scalable, and each component can evolve independently.

3.3 Frontend Implementation (React.js)

The frontend was built to deliver a smooth and intuitive user experience using reusable UI components.

Key modules include:

- **Authentication Pages**: Sign-up, login, and role selection
- **Dashboards**:
 - Candidate: Explore jobs, apply, join scheduled interviews
 - Interviewer: Create interview slots, join sessions, review feedback
- **Live Interview Interface**: Integrated with Jitsi API for video calling, with chat and recording support
- **AI Chatbot Widget**: Helps users with queries, suggests questions, and guides candidates

Technologies: React.js, WebRTC (via Jitsi), Tailwind CSS, Framer Motion for animations.

3.4 Backend Implementation (Spring Boot + AI Microservice)

Backend services:

- **User Service:** Handles registration, login, roles.
- **Interview Service:** Manages scheduling, status updates, links to video sessions
- **AI Integration:** Connects to the Flask microservice for candidate evaluation and chatbot responses
- **Notification Service:** Sends Emails for interview invites, reminders

AI Microservice (Flask):

- Processes candidate responses (text or video)
- Generates evaluation feedback and scores
- Exposed via REST endpoints consumed by the backend

Data flow:

Frontend Request → Backend API → AI Microservice → Response → Frontend

3.5 AI Evaluation and Visualization

The AI evaluation component and visual feedback modules are key for InterviewEase's intelligent value proposition.

Evaluation modules include:

- **Chatbot module:** Provides dynamic Q&A based on job role and candidate input
- **Performance analysis:** Evaluates candidate response clarity, technical correctness, communication score

Conclusion of Model Building and Development

InterviewEase was built as a **modular, scalable, and intelligent interview management platform** that addresses key challenges in hiring today. By combining a React frontend, Spring Boot backend, AI evaluation service, and live video capabilities, the system offers recruiters and candidates a modern, efficient, and data-driven experience. The architecture supports future enhancements such as deeper AI analytics, multi-language .

Chapter - 3

TESTING AND VALIDATION

Testing and validation are key steps in ensuring InterviewEase works correctly and reliably for real users.

4.1 Testing

We tested main parts of the system—frontend, backend, video interview module, and AI chatbot—to confirm they work as expected.

- **Frontend (React):** Verified login/signup pages, user dashboards, upload resume functionality, and interview joining work correctly on desktop and mobile.
- **Backend (Spring Boot + MySQL):** Tested APIs for user creation, scheduling interviews, fetching data, and storing results.
- **Video Interview Module (WebRTC/Jitsi):** Tested live video interview sessions for connectivity, audio/video sync, and recording.
- **AI Chatbot & Evaluation Module (Flask microservice):** Tested basic queries, interview feedback generation, and correct integration with backend.
- **Integration Testing:** From signup → scheduling → interview → feedback flow was executed to ensure end-to-end functionality.

4.2 Validation

Validation confirms that the system meets its objectives for functionality and usability.

- Checked that different user roles (Admin, Interviewer, Candidate) have correct access and views.
- Ensured interview scheduling and notifications (emails/links) function properly.
- Confirmed AI chatbot responds relevantly and evaluation results are presented clearly in dashboards.
- Verified the UI is user-friendly and works on multiple devices and browsers.

4.3 Reliability Measures

To maintain reliability in real use, we implemented:

- Error handling for failed API calls or missing inputs.
- Basic performance checks for video sessions and backend API latency.
- Cross-browser testing to ensure consistent behaviour on Chrome, Firefox, Edge.
- Secure authentication with role-based access and encrypted passwords.

Conclusion

The testing and validation steps for InterviewEase show that key features—user management, scheduling, video interviews, AI evaluation—are functioning as intended. This gives confidence that the platform is ready for use and can support real-world interview processes.

chapter -4

IMPLEMENTATION AND RESULTS

The **InterviewEase – AI-Enhanced Interview Management Platform** is a full-stack web application developed to simplify and automate the interview process. It connects **interviewers** and **candidates** on a single platform where they can manage interviews, track progress, and analyze performance using AI-enhanced features.

This chapter explains how the system was implemented and describes each module in a simple and clear way.

4.1 Implementation Overview

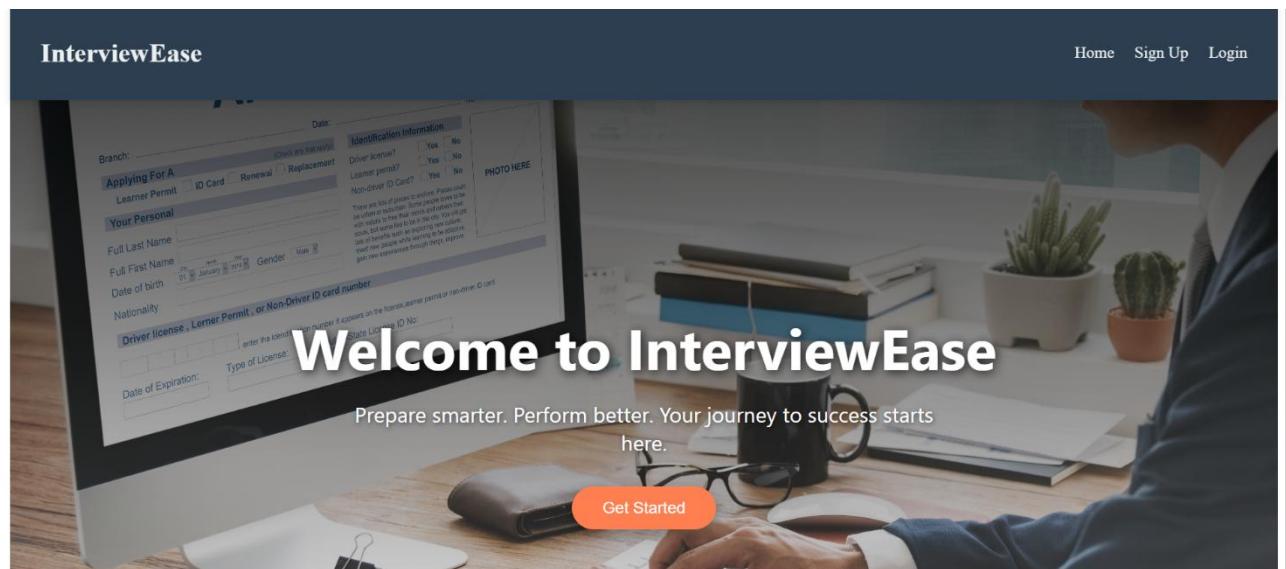
The system is implemented using:

- **Frontend:** React.js
- **Backend:** Spring Boot
- **Database:** MySQL
- **AI Features:** Chatbot integration and resume analysis
- **Other Tools:** WebRTC for real-time communication and REST APIs for data exchange

The entire application is divided into two major dashboards:

1. **Interviewer Dashboard**
2. **Candidate Dashboard**

Each dashboard contains multiple modules that help automate tasks like scheduling, conducting, and evaluating interviews.



4.2 System Architecture

The architecture of InterviewEase follows a **client-server model**.

- The **React frontend** sends requests to the **Spring Boot backend** through REST APIs.
- The **backend** handles business logic and interacts with the **MySQL database** to store and retrieve data.
- AI modules like the chatbot enhance the user experience.
- The system ensures secure authentication and smooth communication between users.

4.3 Major Modules

The application consists of the following major modules:

4.3.1 User Authentication Module

This module allows users (interviewers and candidates) to **sign up and log in** securely.

Features:

- Registration with unique email ID
- Password encryption and validation
- Separate dashboards for interviewer and candidate after login

4.3.2 Candidate Dashboard Module

After logging in, candidates can access their dashboard to manage various activities.

Features:

- **Book Interviews:** Candidates can select available time slots and schedule interviews.
- **Resume Builder:** Helps candidates create or upload resumes directly on the platform.
- **Internship Tracker:** Allows tracking of internship progress and performance.
- **Mock Interview:** Enables practice interviews with automated evaluation.
- **AI Chatbot Assistance:** Helps users with FAQs and guidance.

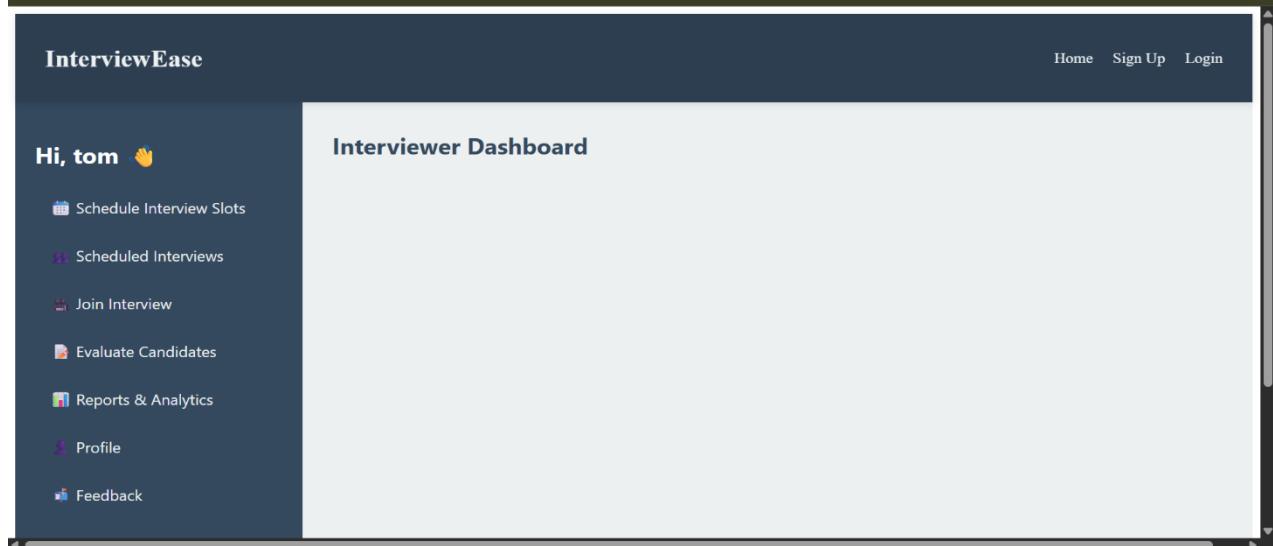


4.3.3 Interviewer Dashboard Module

The interviewer dashboard allows recruiters to manage interview sessions and evaluate candidates.

Features:

- **Schedule Interviews:** Add and manage available interview slots.
- **Join Interviews:** Connect with candidates through video calls.
- **Evaluate Candidates:** Record feedback and ratings after each session.
- **View Reports:** Analyze candidate performance using AI-based analytics.



4.3.4 Live Interview Module (WebRTC)

This module enables **real-time video interviews** between interviewers and candidates. It is implemented using **WebRTC**, allowing smooth audio-video communication without third-party tools.

Features:

- High-quality video and audio calls
- Screen sharing and recording support



4.3.6 Resume Builder and Analyzer

This module allows candidates to **build resumes** within the platform or upload existing ones for analysis. The AI-based system evaluates resumes and gives feedback on structure, keywords, and completeness.

The screenshot shows the InterviewEase Candidate Dashboard. On the left sidebar, under the 'Resume Builder' section, there is a green button labeled '+ Add Skill'. Below it, there are sections for 'Education' (Degree, Institution, Year) and 'Projects' (Title, Description). The main content area is titled 'Advanced Resume Builder' and contains fields for 'Full Name', 'Email', 'Phone', 'LinkedIn', 'GitHub', and 'Objective'.

4.3.7 Internship Tracker Module

This module helps candidates monitor their internship progress, tasks, and goals. It also allows mentors/interviewers to review reports and give performance feedback.

The first screenshot shows the 'Auto Apply for Internships' section, which includes fields for 'Skills (comma separated)', 'Preferred Location', 'Internship Type (remote/in office)', and a file upload field. The second screenshot shows the 'Internship Tracker' section, which displays a list of applied internships, such as 'ML Intern at DataBrains' (Location: Bangalore, Type: Remote, Status: Applied) and 'Web Developer Intern at TechCorp' (Location: Hyderabad, Type: Remote).

4.3.8 AI-Powered Mock Interview Module

This module provides candidates with an **AI-generated mock interview experience** to help them prepare effectively for real interviews. The system automatically **generates relevant interview questions** based on the candidate's selected job role or skill area.

Features:

- The AI generates a **set of customized interview questions** dynamically.
- Candidates can **answer the questions directly** within the interface.
- The system **analyzes the candidate's responses** and provides **automated feedback** highlighting strengths and areas for improvement.
- Helps candidates gain **real-time insights** into their performance and communication skills.

The screenshot shows the InterviewEase Candidate Dashboard. On the left, there is a sidebar with a user profile 'Hi, likki' and various navigation options: Interview Booking, My Bookings, Resume Builder, Auto Apply, Internship Tracker, Saved Internships, Profile, Feedback, and a prominent green 'Mock Interview' button. The main content area is titled 'Candidate Dashboard' and 'AI-Powered Mock Interview'. It features a search bar with 'data scientist' and a 'Generate Interview Questions' button. Below this, a section titled 'Question 1 of 10' asks 'Tell me about your experience relevant to the data scientist position.' It includes a 'Start Recording' button and navigation arrows for 'Previous' and 'Next' questions.

4.6 Conclusion

The implementation of **InterviewEase** successfully integrates multiple modules to create a smart, interactive, and automated interview platform. Each module works together to make the recruitment process faster, smoother, and more efficient for both interviewers and candidates.

Chapter – 5

FUTURE ENHANCEMENTS AND IMPROVEMENTS

The *InterviewEase* platform can be improved and expanded with the following future enhancements:

1. AI-Based Evaluation

Implementing advanced AI models to automatically analyze candidates' responses during interviews and provide detailed performance insights.

2. Real-Time Feedback System

Enhancing the mock interview module to give instant feedback on communication skills, confidence, and technical accuracy using natural language processing.

3. VideoRecording and Analysis

Introducing a feature to record interviews and generate summaries or reports for both candidates and interviewers.

4. Recommendation System

Adding intelligent recommendations for job roles, internships, or skill improvement based on the user's profile and performance.

5. Chatbot Assistance

Integrating an AI chatbot to guide users throughout the platform — from scheduling interviews to preparing for them.

CONCLUSION

The *InterviewEase – AI-Enhanced Interview Management Platform* successfully simplifies and automates the recruitment and interview process. It provides separate dashboards for interviewers and candidates, supports AI-powered mock interviews, resume building, scheduling, and feedback — all in one platform.

In conclusion, this project provides a strong foundation for digital interview management and can be further enhanced to meet the needs of organizations and job seekers in the AI-driven era.

Chapter - 6

REFERENCES

1. React Official Documentation – <https://react.dev>
2. Spring Boot Official Documentation – <https://spring.io/projects/spring-boot>
3. Mozilla Developer Network (MDN). *Web Technologies Documentation*.
4. W3Schools. *HTML, CSS, and JavaScript Tutorials*.
5. WebRTC Official Documentation – <https://webrtc.org>
6. OpenAI API Documentation – *Integrating AI features in web applications*.
7. GeeksforGeeks. *Building Full Stack Web Applications with React and Spring Boot*.
8. Stack Overflow Discussions – *Community-based solutions for React and Spring Boot integration*.
9. Medium Articles – *AI-Powered Interview Preparation Tools and Techniques*.

BOOKS

1. *Spring Boot in Action* – Craig Walls, Manning Publications.
2. *Pro React 18* – Cassio de Sousa Antonio, Apress.
3. *Clean Code: A Handbook of Agile Software Craftsmanship* – Robert C. Martin, Prentice Hall.
4. *Artificial Intelligence: A Modern Approach* – Stuart Russell and Peter Norvig, Pearson.