**Tech Ahead   
  
  
Project Title: Access Hiring Organization: Tech Ahead   
Project Duration: January- March 2025**

**Date: January 30, 2025   
  
  
  
  
  
  
  
  
Prepared By:**

**Jasmine Kaur, Shubham Shubham, Sukhpreet Kaur, Komalpreet Kaur, Prajwal Gautam, Ronish Maharjan, Suraj Dhungana, Surinder Choudhary**

1/30/2025

Jasmine Kaur

[Jasmineji2004@gmail.com](mailto:Jasmineji2004@gmail.com)

437- xxx-xxx

January 30th, 2025

Dear client,

I am pleased to submit my project proposal for the development of an HR Recruitment Web App, Access Hiring, designed to streamline and enhance the hiring process for HR professionals. This proposal outlines the objectives, features, and benefits of the application, as well as the technologies that will be utilized in its development.

The HR Recruitment App aims to simplify the management of job postings, candidate tracking, and communication between recruiters and applicants. By leveraging modern web technologies such as HTML, CSS, JavaScript, React, and MongoDB, the app will provide a user-friendly interface that improves efficiency and productivity in the recruitment process.

I believe this project will significantly benefit your organization by enabling faster and more informed hiring decisions. I look forward to your feedback and the opportunity to discuss this proposal further.

Thank you for considering my project proposal.

Sincerely,

Jasmine Kaur

Project Coordinator

Tech Ahead

**TABLE OF CONTENTS**

[**1.0 Introduction** 3](#_Toc189172118)

[**1.1 Overview** 3](#_Toc189172119)

[**1.2 Significance** 3](#_Toc189172120)

[**1.3 Goals and Objectives** 3](#_Toc189172121)

[**1.4 How the HR System Works** 4](#_Toc189172122)

[**2.0 Project Scope:** 4](#_Toc189172123)

[**2.1 Features & Functionality** 4](#_Toc189172124)

[**2.2 Potential Risks** 5](#_Toc189172125)

[**2.3 Potential Benefits** 5](#_Toc189172126)

[**3.0 PROJECT BACKGROUND & RELATED WORK** 6](#_Toc189172127)

[**3.1 Workable** 6](#_Toc189172128)

[**3.2 Greenhouse** 6](#_Toc189172129)

[**3.3 Lever** 6](#_Toc189172130)

[**3.4 BambooHR** 6](#_Toc189172131)

[**3.5 Jobvite** 7](#_Toc189172132)

[**3.6 HireVue** 7](#_Toc189172133)

[**3.7 Vervoe** 7](#_Toc189172134)

[**3.8 SmartRecruiters** 7](#_Toc189172135)

[**3.9 Zoho Recruit** 7](#_Toc189172136)

[**3.10 Bullhorn** 8](#_Toc189172137)

[**3.11 Differentiation:** 8](#_Toc189172138)

[**4.0 COMPANY DETAILS** 9](#_Toc189172139)

[**4.1 Team Members and Roles** 9](#_Toc189172140)

[**5.0 Project Plan** 11](#_Toc189172141)

[**5.1** **Timeline & Milestones:** 11](#_Toc189172142)

[**6.0 Software Requirement Specifications:** 13](#_Toc189172143)

[**6.1 Dataflow Diagram:** 13](#_Toc189172144)

[**6.2 Justification for Software Tools Selection** 13](#_Toc189172145)

[**6.3 Non-functional Requirements-** 14](#_Toc189172146)

[**6.4 Functional requirements:** 14](#_Toc189172147)

[**7.0 CONCLUSION:** 16](#_Toc189172148)

[**REFERENCES** 17](#_Toc189172149)

# 

# **1.0 Introduction**

## **1.1 Overview**

TechAhead is creating an Automated HR Recruitment Cycle Web App to make hiring easier and more efficient for organizations. This system automates key tasks like job postings, candidate screening, interview scheduling, and offer management. It uses AI to screen resumes, schedule interviews, and track candidates in real-time, improving the experience for both recruiters and job seekers.

The web app will be built using HTML, CSS, JavaScript, React, Node.js, and MongoDB, ensuring it is strong and scalable. The goal is to provide a smooth, end-to-end recruitment process, reducing hiring time and helping HR professionals make better decisions.

## **1.2 Significance**

Recruitment is often time-consuming and complex, involving many stakeholders, lots of documentation, and repetitive tasks. The Automated HR Recruitment Cycle Web App aims to:

* Reduce Hiring Time: Automate resume filtering, job posting, and interview scheduling to speed up the hiring process.
* Improve Decision-Making: Use AI analytics to help recruiters shortlist the best candidates based on set criteria.
* Enhance Candidate Experience: Improve communication, real-time application tracking, and automated interview scheduling for a better applicant journey.
* Increase Efficiency for HR Teams: Eliminate the need for manual tracking, boosting productivity for HR professionals.
* Ensure Scalability: Handle a growing number of job applications and company needs, ensuring long-term usability.

## **1.3 Goals and Objectives**

* Develop an Efficient Recruitment Process: Automate key hiring stages, from job posting to onboarding.
* Enhance Candidate Matching: Use AI-based resume screening and applicant tracking to ensure the best-fit hiring.
* User-Friendly Interface: Provide a seamless and intuitive experience for both recruiters and job seekers.
* Seamless Integration: Allow integration with third-party HR tools, LinkedIn, and applicant tracking systems (ATS).
* Security and Compliance: Ensure data privacy, GDPR compliance, and secure handling of candidate information.

## **1.4 How the HR System Works**

* AI Integration: AI evaluates resumes, screens candidates based on set criteria and recommends the best candidates.
* Automation: Routine tasks like interview scheduling are automated to reduce manual effort and increase speed.
* Seamless Integration: The system integrates directly with existing HR software, ensuring smooth and consistent recruitment operations.

# **2.0 Project Scope:**

TechAhead is developing an Automated HR Recruitment Cycle Web App to streamline and automate the hiring process. This web-based solution will handle job postings, resume screening, interview scheduling, automated feedback collection, and offer management, making the process more efficient for HR teams.

## **2.1 Features & Functionality**

**For HR Professionals & Recruiters:**

* Job Posting Dashboard: Create and manage job listings with automated sharing to external platforms.
* AI-Powered Resume Screening: Filter applications based on skills, experience, and job role.
* Automated Interview Scheduling: Sync calendars and schedule interviews automatically.
* Candidate Tracking System (ATS): Monitor applicant progress, send automated status updates, and manage interview feedback.
* Offer Management: Generate digital offer letters and handle documentation.

**For Job Seekers:**

* Profile Creation & Resume Upload: Create profiles and upload resumes for job applications.
* Application Tracking: Get real-time updates on application progress.
* Automated Interview Scheduling: Receive interview invitations based on HR availability.
* AI-Driven Job Recommendations: Get personalized job suggestions based on skills and experience.

## **2.2 Potential Risks**

* Data Privacy & Security: Handling sensitive data requires strong encryption and security measures.
* Technical Challenges: Integrating AI-powered resume screening and calendar synchronization may need extensive testing.
* User Adoption: HR teams may need training to shift from traditional hiring methods to an automated platform.
* System Scalability: The platform must handle increasing numbers of job postings and applicants without performance issues.

## **2.3 Potential Benefits**

* Reduced Hiring Time: Automates the recruitment cycle, reducing time spent on manual tasks.
* Improved Hiring Decisions: AI-based resume screening and applicant tracking provide data-driven insights.
* Enhanced Candidate Experience: Streamlined job applications and real-time tracking improve applicant engagement.
* Cost Efficiency: Reduces HR operational costs by minimizing manual intervention.

# **3.0 PROJECT BACKGROUND & RELATED WORK**

## **3.1 Workable**

* **Key features** include job posting automation across several platforms, resume screening, interview scheduling, and candidate tracking.
* **Ideal for:** Small to medium-sized enterprises searching for a straightforward, all-in-one recruiting solution.
* **What It Does:** Facilitates hiring through a collaborative ATS, AI-assisted candidate matching, and simple workflow management.

## **3.2 Greenhouse**

* **Key features** include structured interview protocols, job board integrations, and configurable candidate evaluations.
* **Best for:** Medium to big businesses that require a rigorous, data-driven recruitment process.
* **What It Does:** To ensure consistent hiring, the system includes thorough candidate tracking, detailed reporting, and scheduled interviews.

## **3.3 Lever**

* **Key features** include collaborative recruiting, candidate relationship management (CRM), reporting, and scheduling tools.
* **Best for:** Teams seeking a collaborative, easy hiring process with excellent reporting and analytics.
* **What It Does:** Streamlines recruitment through real-time collaboration and analytics; works nicely with other tools.

## **3.4 BambooHR**

* **Key Features:** Applicant Tracking System (ATS), employee data management, automated onboarding, reporting, and analytics.
* **Best For:** Small to medium-sized businesses seeking a comprehensive HR and recruitment solution.
* **What It Does:** Simplifies recruitment and employee management processes, from job postings to onboarding, with an intuitive interface.

## **3.5 Jobvite**

* **Key Features:** End-to-end recruiting, AI-powered candidate recommendations, video interviews, and onboarding tools.
* **Best For:** Medium to large companies requiring advanced features and scalability.
* **What It Does:** Streamlines recruitment from sourcing to hiring with AI tools that enhance candidate selection and experience.

## **3.6 HireVue**

* **Key Features:** AI-enhanced video interviews, candidate assessments, interview scheduling, and feedback sharing.
* **Best For:** Large companies hiring at scale or focusing on video interviews and data-driven hiring decisions.
* **What It Does:** Leverages video and AI to optimize interviews and assessments, boosting hiring efficiency and accuracy.

## **3.7 Vervoe**

* **Key Features:** Skill-based assessments, customizable testing, and AI-driven candidate ranking.
* **Best For:** Companies prioritizing skill-based hiring over resumes.
* **What It Does:** Automates candidate screening based on practical abilities, identifying top talent through performance-focused evaluations.

## **3.8 SmartRecruiters**

* **Key Features:** Automated job postings, candidate sourcing, interview scheduling, and analytics.
* **Best For:** Medium to large businesses seeking a scalable and adaptable recruitment platform.
* **What It Does:** Automates hiring workflows while providing analytics to enhance recruitment strategies.

## **3.9 Zoho Recruit**

* **Key Features:** ATS, resume parsing, interview scheduling, candidate pipeline management, and integrations.
* **Best For:** Small to medium-sized businesses seeking a budget-friendly recruitment solution.
* **What It Does:** Delivers an all-in-one recruitment platform with automation for job postings, candidate screening, and hiring management.

## **3.10 Bullhorn**

* **Key Features:** Recruitment-focused ATS, CRM integration, sourcing automation, and interview scheduling.
* **Best For:** Recruitment agencies and large organizations with high-volume hiring demands.
* **What It Does:** Streamlines recruitment processes by managing candidates, client relationships, and performance metrics efficiently.

## **3.11 Differentiation:**

* **Personalized & Automated Hiring:**Our program will save time and effort by automating the screening of resumes, scheduling of interviews, and follow-ups. Additionally, businesses will be able to modify procedures to meet their own hiring requirements.
* **Improved Experience for Candidates:**By offering chatbots, interactive dashboards, and real-time feedback—features that many other apps do not—we will guarantee a better applicant experience.
* **Smooth Integration with Human Resources Tools:**In contrast to certain current platforms, we will provide seamless connection with performance monitoring, payroll, and onboarding systems, improving the effectiveness of the hiring process.
* **Inclusive & Bias-Free Hiring:**In order to encourage equitable and diverse hiring, which is sometimes lacking in older apps, we will incorporate blind hiring capabilities and AI-driven prejudice detection tools.
* **Quicker & More Economical:**We will drastically cut down on hiring time and expenses with one-click job posts, AI-driven screening, and automated interview coordination.
* **Making Decisions Based on Data:**In order to help HR teams make better hiring decisions, we will offer real-time statistics and forecast hiring trends.

# **4.0 COMPANY DETAILS**

## **4.1 Team Members and Roles**

**1. Project Coordinator – [Jasmine Kaur]**

**Responsibilities:**

* Oversee the entire project to ensure timely delivery and smooth execution.
* Facilitate communication between team members and stakeholders.
* Monitor project progress, milestones, and deadlines.
* Conduct regular review meetings and track team performance.
* Maintain project documentation and reports.

**Relevant Skills:**

* Strong leadership and organizational skills.
* Excellent communication and problem-solving abilities.
* Ability to manage timelines and multitask efficiently.

**2. Frontend Developer – [Shubham Shubham, Suraj Dhungana]**

**Responsibilities:**

* Develop and design the front end using **React, HTML, CSS, and JavaScript**.
* Implement UI components and ensure a responsive, user-friendly interface.
* Collaborate with UI/UX designers to bring wireframes and mock-ups to life.
* Optimize website performance and ensure cross-browser compatibility.
* Integrate APIs to connect with the backend.

**Relevant Skills:**

* Proficiency in **React.js, JavaScript, HTML, CSS**.
* Strong understanding of **responsive design** and front-end frameworks.
* Ability to work with REST APIs and ensure smooth front-end interactions.

**3. Backend Developer – [Prajwal Gautam, Ronish Maharjan]**

**Responsibilities:**

* Develop and maintain server-side logic using **Node.js and Express.js**.
* Design and manage the database using **MongoDB**.
* Implement authentication, authorization, and security measures.
* Develop and integrate RESTful APIs for front-end communication.
* Ensure database efficiency, scalability, and security.

**Relevant Skills:**

* Proficiency in **Node.js, Express.js, and MongoDB**.
* Experience with API development and database management.
* Understanding of authentication and security best practices.

**4. UI/UX Designer – [Sukhpreet Kaur]**

**Responsibilities:**

* Design a user-friendly and intuitive web app interface.
* Create wireframes, prototypes, and mock-ups based on user requirements.
* Ensure the user experience is seamless and visually appealing.
* Work with frontend developers to implement UI elements.
* Conduct user testing and gather feedback for improvements.

**Relevant Skills:**

* Proficiency in design tools like Figma, Adobe XD, or similar.
* Understanding of UI/UX principles and responsive design.
* Ability to translate user needs into functional designs.

**5. Quality Assurance (QA) Tester – [Komalpreet Kaur, Surinder Choudhary]**

**Responsibilities:**

* Test the app manually and automatically to find bugs and issues.
* Perform tests to check functionality, usability, and performance.
* Document and report defects, ensuring they are fixed before release.
* Ensure the app meets quality standards and user needs.
* Work closely with developers to fix identified issues.

**Relevant Skills:**

* Attention to detail and problem-solving skills.
* Experience with testing tools and methods.
* Strong analytical and documentation skills.

# **5.0 Project Plan**

## **Timeline & Milestones:**

**1. Requirement Gathering**

1. Stakeholder Identification- HR managers, recruiters, payroll staff, and other HR professionals will be key stakeholders, as they'll use the app daily.

2. Technical Requirements- Determining whether the app will be built on a particular platform (e.g., React for the frontend, Node.js for the backend).

3. Implementation Timeline- Some features might need to be delivered earlier than others depending on business needs.

**2 Front Design**

1.Database Design- Ensure data consistency and enforce referential integrity (e.g., foreign keys between employees and performance reviews).

2. Security Considerations- Ensure role-based access control (RBAC) is implemented, so only authorized personnel can access sensitive information like payroll data or employee performance reviews.

**3 Back-end design**

1. interlinking the data with front end to back end

2. Authentication and authorization will be considered

**4 Testing**

1. Continuously testing the area that needs to be maintained before finalizing.

A screenshot of a computer

Description automatically generated

**6.0 Software Requirement Specifications:**

## **6.1 Dataflow Diagram:**

A screenshot of a computer

Description automatically generated

## **6.2 Justification for Software Tools Selection**

**1 Programming Language:**

Chosen Tools: JavaScript, html (React for front-end), json (for back-end).

Justification: React is chosen for its component-based approach for building dynamic and responsive UIs. Json is selected for its scalability, security features, and ease of rapid development.

**2 Version Control:**

Chosen Tool: Git with GitHub or GitLab.

Justification: Git is the industry standard for version control, making it easy to manage and collaborate on code. GitHub or GitLab offers additional features like continuous integration (CI) and collaboration tools.

## **6.3 Non-functional Requirements-**

* **Scalability:** The system should be capable of supporting thousands of users simultaneously with minimal latency.
* **Security:** User data must be encrypted, and the platform must adhere to all relevant data protection regulations. Also, could you implement role-based access control (RBAC) to make sure administrative privileges are restricted to authorized users only.
* **Performance:** Ensure quick load times and seamless gameplay across all devices.
* **Responsive Design:** The application must be fully responsive, offering a smooth experience on desktops, tablets, and mobile devices.
* **User-Friendly Interface:** The interface should be intuitive and easy to navigate, ensuring a hassle-free user experience.

## **6.4 Functional requirements:**

**User Access Management:**

* Secure login with role-specific access (employees, managers, HR).
* Edit and manage employee profiles.

**Leave and Attendance Tracking:**

* Submit and approve leave requests (e.g., vacation, sick days).
* Monitor employee attendance and work hours.

**Payroll and Benefits Management**

* Access salary information, payslips, and benefits details.
* Track bonuses, deductions, and tax details.

**Performance Tracking**

* Set goals and monitor progress.
* Conduct performance reviews and give feedback.

**Communication and Employee Engagement**

* Share company-wide announcements.
* Enable internal messaging between employees and HR.

**Reporting**

* Generate reports on attendance, leave, and payroll data.

**6.5 Entity- Relationship Diagram:**

A diagram of a computer

Description automatically generated

# **7.0 CONCLUSION:**

To summarize, the purpose of this online application is to make the hiring process for HR recruiters more efficient and user-friendly. We have developed a strong platform that streamlines a variety of hiring activities by leveraging contemporary technologies like HTML, CSS, JavaScript, React, and MongoDB. From a single interface, recruiters can efficiently manage job ads, monitor candidate applications, and interact with applicants.  
  
Users can save a great deal of time and effort by navigating through the application's capabilities with ease because to its easy design. Additionally, MongoDB makes it possible to maintain data securely and effectively, giving recruiters access to real-time insights into their hiring procedures.

In the end, this web application enables HR managers to make hiring decisions more quickly and intelligently, increasing their total productivity and helping their companies succeed. We are confident that this technology will greatly enhance the hiring process for both candidates and recruiters.

# **REFERENCES**

BambooHR  
BambooHR. (n.d.). *BambooHR: The All-in-One HR Software*. Retrieved from https://www.bamboohr.com/

Bullhorn  
Bullhorn. (n.d.). *Bullhorn: Recruitment Software for Staffing Agencies*. Retrieved from https://www.bullhorn.com/

Greenhouse  
Greenhouse Software. (n.d.). *Greenhouse: The Recruiting Software for Growing Companies*. Retrieved from https://www.greenhouse.io/

HireVue  
HireVue. (n.d.). *HireVue: Video Interviewing and Assessment Solutions*. Retrieved from https://www.hirevue.com/

Jobvite  
Jobvite. (n.d.). *Jobvite: The Complete Recruiting Platform*. Retrieved from https://www.jobvite.com/

Lever  
Lever. (n.d.). *Lever: The Collaborative Recruiting Software*. Retrieved from https://www.lever.co/

SmartRecruiters  
SmartRecruiters. (n.d.). *SmartRecruiters: The Hiring Success Platform*. Retrieved from https://www.smartrecruiters.com/

Vervoe  
Vervoe. (n.d.). *Vervoe: Skill-Based Hiring Made Easy*. Retrieved from https://vervoe.com/

Workable  
Workable. (n.d.). *Workable: Recruiting Software for Small and Medium Businesses*. Retrieved from https://www.workable.com/

Zoho Recruit  
Zoho Corporation. (n.d.). *Zoho Recruit: Recruitment Software for Staffing Agencies and Businesses*. Retrieved from https://www.zoho.com/recruit/