



Get A Job:
A One-Stop Job Application Platform

Produced by Feichen Yu, Wanqing Chen, Sakshi Pandit, Saksham Verma

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Introduction

1. System Introduction

The proposed platform is a comprehensive, one-stop solution designed to empower job hunters by streamlining various aspects of the job search and application process. The system is built to cater to active job seekers and those looking to improve their professional profile. It combines several functional areas, including **resume refinement**, **job discovery**, **application tracking**, and **interview preparation** (with interview questions where applicable).

The GetAJob platform offers a range of integrated features designed to support job seekers throughout every stage of their employment journey. These tools enhance user experience, improve application quality, and increase job search effectiveness.

The **GetAJob Layout** provides users with a streamlined, user-friendly dashboard that consolidates key job search elements in one place. This includes access to **relevant job opportunities**, **personalized company recommendations**, and **real-time updates on application progress**, enabling users to manage their job search efficiently.

To support application readiness, the platform includes a **Resume/CV Refining** feature that offers tools and resources for **resume optimization**. Users receive **tailored suggestions** for improvement based on job descriptions and industry standards. Additionally, the **Interview Prep and Coding Questions** section provides a comprehensive suite of preparation tools, including a repository of **company-specific interview questions**, **interactive mock interview simulations**, and **coding challenges** to help candidates build confidence and improve performance.

2. Project Charter

Goal

The primary goal of this project is to develop an integrated web application that empowers job seekers with comprehensive tools to support their employment journey. The platform will enable users to **discover job opportunities and companies**, **enhance their professional profiles through resume refinement**, **prepare effectively for interviews** (including technical and coding challenges), and **track and manage job applications** with efficiency and ease.

Objectives

Job Discovery

The platform will feature a robust job search capability, allowing users to discover new listings sourced from internal postings and external resources through a dedicated /web/jobs API. In addition, it will display **detailed company profiles**, including user reviews, hiring trends, and currently available job opportunities, helping users make informed decisions.

Resume/CV Refining

A suite of **resume optimization tools** will be provided to help users align their profiles with industry standards. Users can select from preset resume templates and receive **automated feedback** to improve structure, content, and keyword alignment, improving their visibility to recruiters.

Interview Preparation

The platform will offer curated **interview questions and coding challenges** from various companies and industries. An **interactive mock interview module** will allow users to practice their responses in a simulated environment, enhancing their confidence and readiness for actual interviews.

Application Tracking

A comprehensive **application tracking system** will be developed to assist users in managing their job search process. Features will include the ability to log applications, track communication with employers, and set **reminders and notes** for follow-ups, streamlining the path from application to offer.

Scope

This project involves developing a job-hunting platform that combines job discovery, resume refinement, interview preparation, and application tracking. The system will integrate internal postings with external job listings through an API, offering users a continuously updated selection of opportunities and detailed company profiles.

In addition, the project will include tools for improving resumes and CVs using industry-standard templates and automated feedback. This feature is designed to help users quickly optimize their professional profiles.

The platform will also offer an interview preparation module with a repository of interview questions, interactive mock interviews, and coding challenges. A built-in application tracking system will enable users to monitor their job search progress and manage application details. This scope does not include direct recruitment, employment guarantees, and deep integrations with external professional networking sites.

Business Case

1. Organization Description

Our organization is dedicated to empowering job seekers by leveraging technology to streamline the job search process. With an understanding of the challenges applicants face in today's competitive job market, we are committed to providing tools that facilitate thorough preparation and enhanced visibility into job opportunities.

Environment

The platform operates within a highly competitive job market ecosystem, which includes job boards, networking sites, and recruitment agencies. Our solution is uniquely positioned to serve job seekers by integrating data-driven insights with interactive preparation tools.

Business Goals

The primary business goal is to create a comprehensive platform that offers an integrated suite of tools for job seekers. The platform aims to centralize the job search by enabling users to contribute and access detailed data on companies, people, and job openings. By fostering a community-driven environment, the system aggregates diverse job listings. It enriches the content with user-generated insights, ensuring candidates can access a well-rounded view of potential employers.

Another key objective is facilitating job discovery through seamless integration with external resources. The platform continuously updates job listings by leveraging the API, offering candidates access to the latest opportunities from various sources. This integration is designed to eliminate the fragmentation of job search tools and to provide a singular, reliable destination for discovering new positions. The system's capability to automatically pull in and update data minimizes manual input and ensures that the job listings remain current and relevant.

The platform also focuses on delivering informative and interactive content. Detailed profiles of companies, along with curated insights about people and job roles, will be available to help users make informed decisions about their career paths. Interactive elements, such as user reviews and ratings, enhance the content by providing real-world perspectives on company cultures and hiring practices. This rich, contextual information empowers users with the knowledge to tailor their job search and application strategies effectively.

Additionally, a significant business goal is to support candidates through every stage of the job application process. The platform is designed to offer comprehensive tools for resume and CV refinement, ensuring that users can craft documents that meet industry standards. Automated feedback and preset templates streamline the resume-building process, enabling candidates to present themselves professionally and competitively. Furthermore, including an interview preparation module—featuring a repository of interview questions, coding challenges, and mock interviews—addresses a critical need for practice and confidence-building, ultimately enhancing candidate performance during actual interviews.

Platform Comparison: Key Players in the Job Search Ecosystem

The job search ecosystem encompasses a variety of platforms, each catering to different user segments and career needs. While some platforms emphasize discovery and accessibility, others focus on networking, interview readiness, or educational support. This section offers a

comparative analysis of four prominent platforms: Handshake, Indeed, LinkedIn, and InterviewBit, highlighting their unique strengths and limitations.

Handshake

Handshake is a career platform primarily tailored for students and recent graduates. Through partnerships with thousands of universities, it offers personalized job and internship recommendations, virtual career fairs, and connections to alumni networks. Its core strength lies in its university-centric ecosystem, where employers actively recruit entry-level talent from partner institutions. However, its reach is relatively narrow when compared to broader professional networks, making it less suitable for mid-career professionals or those seeking cross-industry opportunities.

Indeed

As one of the largest job aggregators globally, Indeed features a vast array of job postings collected from company websites, job boards, and recruitment agencies. Its intuitive search interface allows users to filter opportunities based on keywords, location, and compensation. Features such as resume uploads, job alerts, company reviews, and Indeed Assessments help enhance candidate visibility and preparedness. Despite its scale and accessibility, Indeed lacks social networking capabilities and offers limited tools for application tracking and professional branding—areas where platforms like LinkedIn excel.

LinkedIn

LinkedIn stands as the largest professional networking platform, merging social media dynamics with career development. Users can build detailed professional profiles, engage with industry content, connect with peers, and follow companies of interest. LinkedIn offers tailored job recommendations, recruiter messaging, and access to LinkedIn Learning for skill development. While it fosters strong networking and personal branding, its application process often redirects users to external sites, and it lacks advanced job tracking features found in more dedicated job search management systems.

InterviewBit

InterviewBit specializes in preparing candidates—especially aspiring software engineers—for technical interviews. Through coding challenges, structured problem-solving tracks, and personalized mentorship, the platform helps users build the skills necessary to succeed in interviews at top-tier tech firms such as Google, Microsoft, and Amazon. It also serves as a talent

pipeline, connecting high-performing candidates directly with recruiters. However, its focus on technical roles limits its relevance for non-tech job seekers, distinguishing it as a niche player in a broader job market.

Each of these platforms serves a specific purpose within the job search journey. While Handshake supports early-career entry, Indeed excels in scale and reach. LinkedIn combines branding with network-based opportunities, and InterviewBit delivers specialized preparation for technical roles. However, none fully integrate resume optimization, job tracking, upskilling, and interview preparation into a single platform—an opportunity GetAJob aims to seize with its unified and holistic approach.

Need for the system

The job search process is often overwhelming and requires more than access to job listings. Applicants need comprehensive preparation, including resume building, interview readiness, and strategic job application tracking. While existing platforms offer job listings and networking, they often lack a structured, consultancy-like approach to job search preparation.

A dedicated system that provides end-to-end support—from skill assessments and resume optimization to personalized job recommendations and mock interviews—can bridge this gap. By integrating expert guidance, industry insights, and interactive preparation tools, this system ensures that applicants are job-ready and equipped with the confidence and skills needed to secure the right opportunities.

2. System Description

Business or Administrative Problem Addressed

Inefficient Job Search Management

Job seekers often rely on a range of disjointed platforms—such as LinkedIn, Indeed, and Handshake—for job discovery, application tracking, and interview preparation. This fragmented approach leads to inefficiencies, including wasted time, disorganization, and increased mental fatigue. Users are burdened by the need to switch between tools, making it difficult to maintain a coherent search strategy.

To address this, our platform offers a unified dashboard that consolidates all core job search functions. From personalized job recommendations to real-time application tracking and integrated interview preparation resources, the platform eliminates the need for tool-switching, thereby enhancing productivity and focus.

Suboptimal Resume/CV Effectiveness

Many job seekers lack the expertise to tailor their resumes according to industry standards or optimize them for Applicant Tracking Systems (ATS). As a result, well-qualified candidates are

often filtered out at early stages due to generic or poorly structured resumes.

The platform combats this with AI-driven resume analysis, industry-specific templates, and intelligent keyword optimization. These tools guide users in crafting resumes that not only meet ATS criteria but also align with employer expectations, significantly improving their chances of selection.

Limited Application Tracking Capabilities

Manual methods of tracking applications—such as spreadsheets and scattered email threads—often result in missed follow-ups, forgotten deadlines, and overall disorganization. This undermines a candidate's professionalism and may result in lost opportunities.

Our solution is a centralized application tracker that automates deadline alerts, visualizes progress, and logs key communications. This system empowers job seekers to manage their pipeline proactively and ensures no opportunity is overlooked.

Ineffective Interview Preparedness

Candidates often enter interviews with minimal preparation, lacking access to company-specific behavioral, technical, or coding questions. This lack of readiness contributes to low confidence and poor interview outcomes.

To close this gap, the platform provides a curated bank of real interview questions, mock interview simulations, and coding environments. These resources offer hands-on practice and real-world exposure, helping users build confidence and improve performance.

Skill-to-Job Market Misalignment

A frequent challenge in the job search process is the mismatch between the skills candidates possess and those demanded by employers. Job seekers may also fail to highlight in-demand competencies effectively in their profiles.

Through market trend analysis and personalized insights, the platform helps users identify key skill gaps and provides targeted upskilling recommendations. Company-specific guidance further enables candidates to tailor their profiles in alignment with current industry needs.

Employer Recruitment Inefficiencies

Employers often struggle to identify applicants who are not only technically qualified but also align with organizational culture. This leads to lengthy recruitment cycles, higher costs, and suboptimal hiring decisions.

By equipping candidates with optimized resumes, interview-ready skills, and strategically tailored profiles, the platform enhances the quality of applicant pools. As a result, employers experience more efficient recruitment workflows and improved hiring outcomes.

Key Administrative and Market Impacts

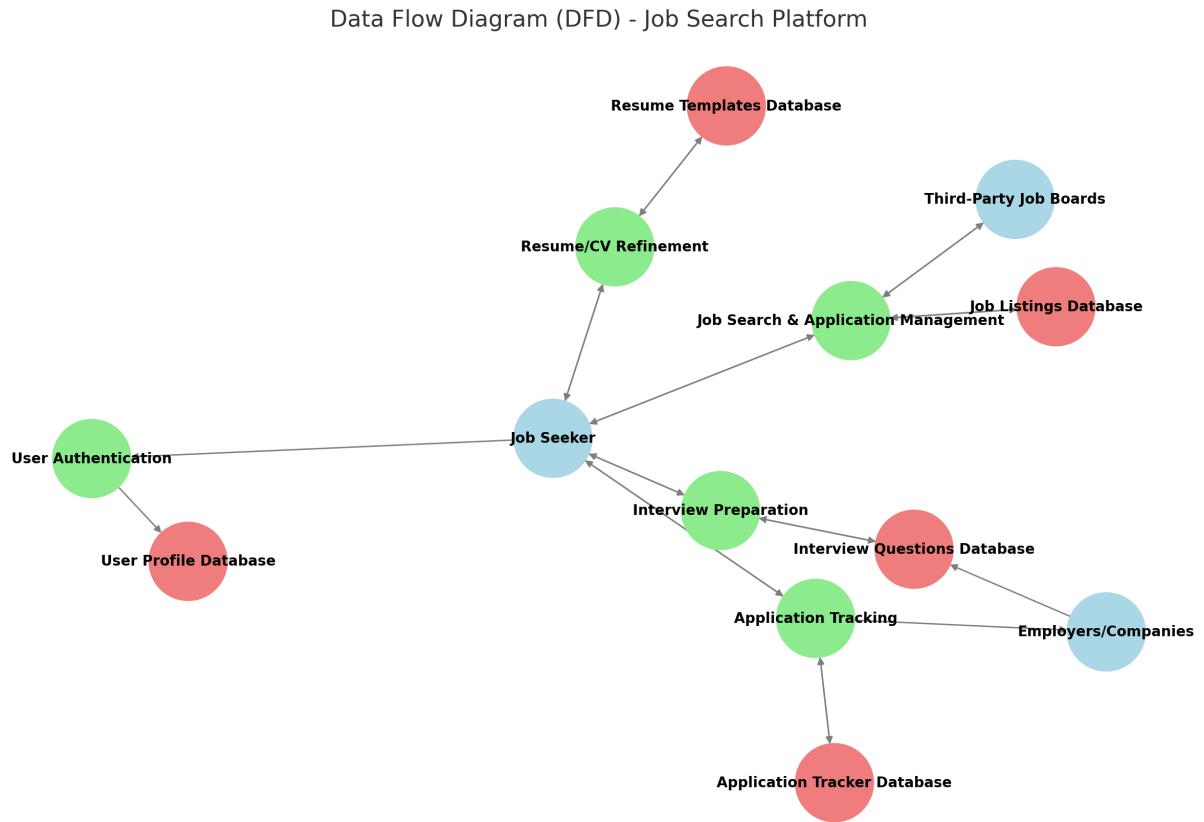
Our platform offers substantial benefits across the job-seeking ecosystem, positively impacting job seekers, employers, and the broader labor market.

For job seekers, the platform significantly reduces the time spent on job hunting—by up to 40%—through the use of centralized tools that streamline the application process. It enhances interview conversion rates by providing tailored resume optimization and targeted interview preparation resources. Additionally, it lowers the stress typically associated with job searching by offering a structured and clear approach, enabling users to navigate their career journeys more confidently and efficiently.

Employers benefit through a shorter time-to-hire as the system filters out unqualified candidates early in the process, allowing hiring teams to focus only on relevant, well-prepared applicants. This efficiency translates into lower recruitment costs, as employers spend less time and fewer resources identifying and assessing potential hires due to improved candidate readiness and fit.

At a broader level, the platform contributes to the labor market by helping bridge the gap between talent supply and employer demand. It encourages individuals to upskill and align their competencies with evolving industry requirements, fostering a more agile, adaptable, and competitive workforce.

Dataflow Diagrams (DFD) – Context, Level-0, Level-1



Context-Level Data Flow Diagram (DFD)

The context-level Data Flow Diagram (DFD) provides a high-level overview of how data flows throughout the job search platform. It illustrates the system as a single unified process, highlighting the interaction between external entities and the core functionalities of the platform. This model helps in understanding how users and external systems engage with internal processes and how data is stored and accessed within the platform's infrastructure.

The primary external entities include job seekers, third-party job boards, and employers. Job seekers are the core users who interact with the system by inputting resumes, skills, and job preferences. In return, they receive personalized job recommendations, refined resumes, and tailored interview preparation materials. Third-party job boards serve as sources for external job postings, which are integrated into the platform's aggregated listings. These boards may also receive job applications submitted by users via the platform. Employers contribute to the ecosystem by uploading interview questions—both behavioral and technical—and reviewing candidate applications received through the system.

At the heart of the platform lie several critical processes that manage user activity and deliver value. The user authentication module ensures that login credentials are validated and secure access is granted. Once authenticated, users can access the job search and application management process, which compiles listings from internal and external sources and facilitates streamlined job applications. Resume and CV refinement is another key component, offering users tools to optimize their documents for Applicant Tracking Systems (ATS), ensuring higher visibility to recruiters. Interview preparation enhances user readiness by offering access to practice questions, mock interviews, and feedback tools. Simultaneously, an application tracking system monitors the status of submitted applications, notifies users of important deadlines, and helps maintain a structured job search process.

Supporting these processes are five main databases. The user profile database stores login credentials, preferences, and personalized data that tailor the user experience. The job listings database holds the collection of internal and third-party job opportunities. For document enhancement, the resume templates database provides a library of industry-specific formats. The interview questions database contains behavioral prompts and coding problems sourced from real company interviews, enriching the preparation tools. Lastly, the application tracker database logs submission histories, tracks updates, and ensures candidates stay informed throughout the hiring process.

This context-level DFD lays the foundation for understanding the platform's architecture and the relationships between its external stakeholders, internal operations, and data management systems. It sets the stage for deeper analysis in subsequent levels of system modeling.

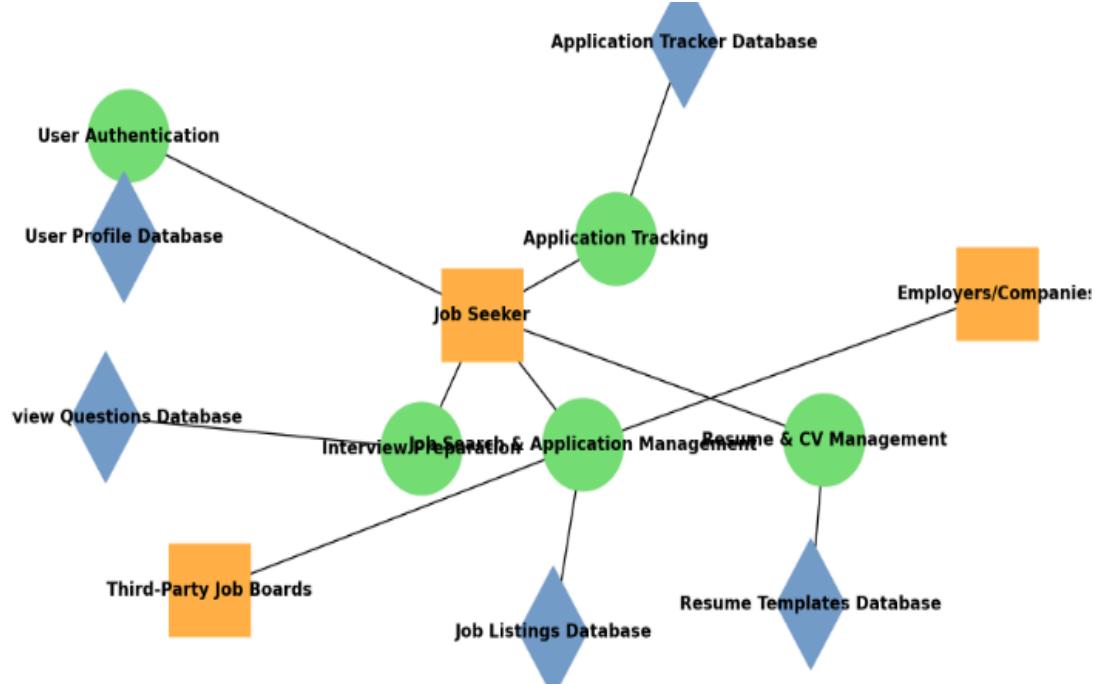
Data Flow Overview

The data flow within the job search platform is designed to enable seamless interaction between users, internal processes, data repositories, and external systems. Job seekers initiate the process by inputting their job search criteria, uploading resumes, and actively tracking their application progress. These inputs flow into core processes that analyze and refine resumes for Applicant Tracking System (ATS) compatibility, generate personalized job recommendations based on user profiles and market trends, and deliver interview preparation materials tailored to the target roles.

All relevant data is stored in structured repositories that support real-time retrieval and updates. Job postings, whether internally sourced or aggregated from external boards, are centralized within the job listings database. User preferences, resume data, and activity history are stored in user-specific profiles, while a dedicated tracking system maintains up-to-date records of submitted applications and related deadlines.

In parallel, third-party job boards and employers interface with the platform through API integrations and shared data mechanisms. These external entities contribute job listings, receive candidate applications, and, in some cases, provide interview-related content. This interconnected system ensures that both users and recruiters can operate efficiently within a unified digital environment.

LEVEL 1:



Level 1 Data Flow Diagram

The Level 1 Data Flow Diagram expands the system into five core processes, offering a more detailed view of how the job search platform functions internally. These processes work together to deliver a cohesive and supportive experience for both job seekers and employers, while maintaining structured data flow and user interaction across the platform.

The first major process is User Authentication, which is responsible for verifying login credentials and managing secure access to personalized features. This ensures that each user's data—such as resumes, preferences, and application history—is protected and accessible only by them.

Next is Resume and CV Management, which allows users to create, upload, refine, and optimize their resumes. This process includes features such as resume formatting tools, keyword optimization for ATS compatibility, and access to pre-designed templates tailored to specific industries.

The Job Search and Application Management process handles the discovery and submission of job opportunities. It aggregates listings from internal sources and third-party platforms, enabling

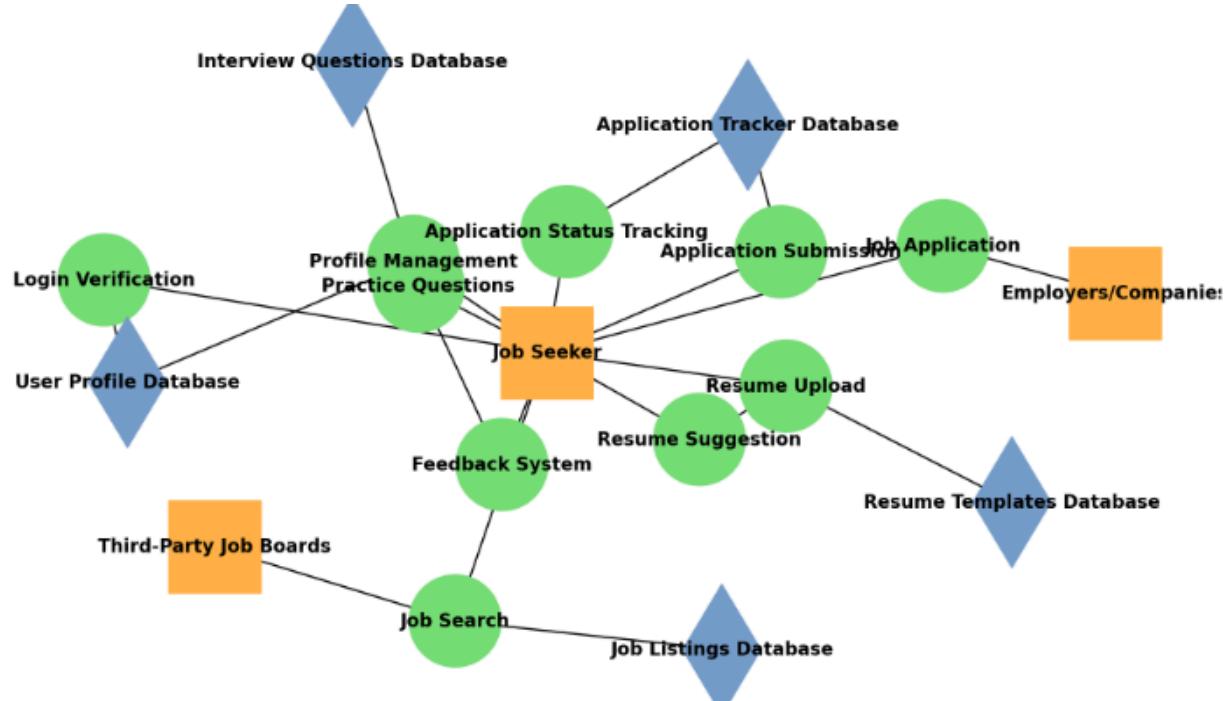
users to filter and apply to positions directly through the system. This process also supports features like saved searches and recommended jobs based on user profiles.

Interview Preparation plays a key role in candidate readiness by providing curated interview questions, mock interview modules, and company-specific challenges. This process is designed to boost user confidence and improve their chances of performing well in interviews.

Finally, Application Tracking enables users to monitor the status of submitted applications. It logs key milestones such as submission dates, interview invitations, and follow-up deadlines, ensuring users can stay organized and maintain professional communication throughout their job search journey.

Together, these five processes represent the operational backbone of the platform, guiding the flow of user input, system processing, and output delivery within a secure and scalable environment.

LEVEL 2:



Level 2 Data Flow Diagram

The Level 2 Data Flow Diagram provides a deeper breakdown of the platform's internal processes, elaborating on the sub-components introduced in the Level 1 DFD. This detailed view enhances understanding of how user inputs are handled, processed, and transformed into actionable outcomes throughout the system.

Within the User Authentication process, two primary sub-functions are responsible for managing secure access and personalization. The login verification mechanism ensures that user credentials are correctly authenticated before granting access to the platform. Once logged in, users can manage their accounts through the profile management feature, which allows them to update personal details, preferences, and job-related information that influence their experience on the platform.

In the Resume Management module, users can upload their existing resumes, which are stored for editing and optimization. This process is further enhanced by a resume suggestion engine, which analyzes the uploaded document and provides tailored improvements based on industry standards and ATS compatibility.

The Job Search and Application process is subdivided into job searching and application submission. The job searching component lets users explore listings filtered by criteria such as location, experience level, and industry. Once suitable positions are identified, the application submission sub-process facilitates the direct application to jobs through the platform's integrated interface.

Interview Preparation is designed to build user confidence and readiness through two complementary sub-processes. Users can engage with a bank of practice questions covering both behavioral and technical topics. In parallel, the feedback system provides insights and suggestions for improvement, whether through mock interviews or answer evaluations.

Lastly, the Application Tracking module includes sub-processes for application submission logging and status tracking. The system records each application event and continuously monitors its progress. Users receive updates on changes in status and are reminded of key dates, helping them stay organized and responsive throughout the hiring process.

Overall, the Level 2 DFD highlights the functional depth of each module, showing how they collectively contribute to a streamlined and intelligent job search experience.

3. Business Assumptions and Risks

Business Assumptions

Market Assumptions

The platform is built on the premise that there is a substantial and growing demand for job search preparation tools, particularly among recent graduates and early-career professionals who are actively pursuing career development opportunities. It further assumes that the broader job market will remain stable or experience steady growth in the coming years, thereby ensuring a consistent pipeline of job opportunities and sustained user engagement. Additionally, the platform anticipates continued investment from employers in digital recruitment tools that allow them to efficiently identify and engage with qualified candidates.

User Assumptions

The platform assumes that job seekers are motivated to enhance their employment prospects by utilizing tools that support resume improvement, interview practice, and skill-building. This motivation is driven by the increasingly competitive nature of the job market. On the employer side, it is anticipated that organizations will engage proactively by posting job listings, reviewing applicant profiles, and providing feedback to potential hires. It is also expected that users will take initiative in completing their personal profiles and keeping their information updated, thereby maximizing their chances of being discovered by recruiters.

Technology Assumptions

The platform's success relies on the assumption that current advancements in artificial intelligence and machine learning are adequate to support key features such as intelligent resume optimization and realistic interview preparation simulations. It also assumes that its technical infrastructure is robust and scalable enough to accommodate a growing user base without compromising performance. Furthermore, it presumes that its data security measures will be effective in safeguarding sensitive user information and that the system will comply with evolving privacy and regulatory standards.

Competitive Assumptions

It is assumed that while major platforms such as LinkedIn and Handshake dominate the job market landscape, they will not immediately replicate the niche, specialized features introduced by this platform—offering a window of opportunity to establish brand identity and user loyalty. The platform also expects its differentiation through personalized tools like intelligent resume feedback and virtual interview coaching to attract users seeking more targeted solutions. However, it remains aware of the potential risk of competitive responses, such as pricing changes or feature enhancements by larger players, which could impact user acquisition and retention.

Financial Assumptions

Financially, the platform anticipates generating revenue through a diversified model that

includes premium subscriptions for users, recruitment-related fees from employers, and monetization of sponsored job listings. While it expects that operational costs—including those related to server maintenance, infrastructure, and customer support—will scale with user growth, it is confident that rising revenues will offset these expenses. The business further assumes that upfront investment in marketing and user acquisition will be essential to build early traction, reach critical mass, and secure long-term profitability.

Risks

Functionality Risks

A major functional limitation of the platform is the absence of guaranteed job placements. While *GetAJob* offers a comprehensive set of tools—ranging from resume optimization and interview preparation to application tracking—it cannot ensure successful employment outcomes for users. This disconnect between user expectations and actual results may lead to dissatisfaction, particularly if expectations are not properly managed through communication and transparency. Additionally, employer engagement poses a risk, as some companies may neglect to update job listings or may prefer to recruit via platforms with broader visibility or richer features. Such disengagement, a common issue seen on platforms like Handshake, can diminish the platform's value proposition to job seekers. Another potential weakness lies in the resume optimization feature, which—although beneficial—relies heavily on static templates and algorithmic scoring, similar to platforms like VMock. These tools may not cater effectively to the nuanced needs of diverse industries or non-traditional roles, potentially limiting their utility.

Legal and Regulatory Risks

Operating as an online platform across various jurisdictions, *GetAJob* must adhere to a complex landscape of legal and regulatory requirements, particularly in areas of data protection, employment law, and advertising standards. For example, in Washington, D.C., the platform is subject to compliance with the Security Breach Notification Act (Law 28-3852), among other state and federal regulations. Poorly defined terms in contracts with users or employers—especially regarding data ownership, content rights, or liability—can lead to legal disputes. There is also the possibility of unintentionally publishing misleading or unverified content, such as inaccurate job descriptions or plagiarized resume templates, which could result in copyright infringements or reputational damage.

Privacy Risks

Given the sensitive nature of the data handled—ranging from resumes and contact information to job preferences and feedback—privacy protection is a critical concern. Any data breach could compromise the personal information of users or employers, triggering regulatory action and eroding user trust. The platform must ensure strict compliance with leading privacy regulations, such as the General Data Protection Regulation (GDPR) and the California Consumer Privacy

Act (CCPA). Non-compliance could result in significant financial penalties and long-term brand damage. To mitigate these risks, robust encryption, secure data storage, and limited access control protocols must be maintained rigorously and consistently.

Financial Risks

The financial health of the platform depends heavily on its ability to balance initial investment with sustainable user growth and revenue generation. Building the platform requires substantial up-front costs, particularly in areas such as software development, server infrastructure, customer support, and marketing. Should user acquisition or engagement fall short of projections, the platform could face revenue deficits that jeopardize operations. Additionally, failing to accurately forecast recurring expenses—such as server uptime costs, scalability investments, or support staffing—could result in cash flow issues. If the platform is unable to deliver expected returns, it may struggle to attract or retain investors, limiting its potential for future expansion.

IT Security Risks

As the platform scales, maintaining a strong cybersecurity framework becomes essential. Weak password policies or inadequate authentication mechanisms could expose user accounts to malicious attacks. Without regular security audits and careful management of access controls, vulnerabilities may go unnoticed, leaving the system open to exploitation. Furthermore, lacking a proactive security culture—such as routine code reviews, intrusion detection systems, or penetration testing—could increase the risk of breaches. High standards in IT security are not only necessary for protecting user data but also vital for preserving the platform's reputation and long-term viability.

4. System Cost Targets & ROI Estimates

To assess the financial viability of launching *GetAJob*—a job search and career services platform—we have organized all projected expenditures into four major categories: Infrastructure & Platform, Third-Party APIs & Licensing, Human Resources & Operations, and Marketing & Miscellaneous. These estimates reflect a realistic 9-month runway for development and early operations, targeting a break-even point within the same period.

1. Infrastructure & Platform Costs

Item	Cost per Month (\$)	Months	Total (\$)
AWS Lightsail (2GB RAM, 1vCPU, 3TB)	10	9	90
Database (AWS RDS)	25	9	225

Domain & Hosting	One-time	-	300
AWS S3 Storage (Resume Uploads)	10	9	90
Subtotal	-	-	705

2. Third-Party API Costs & Licensing Costs

Item	Cost per Month (\$)	Months	Total (\$)
Auth0 Authentication (B2C plan)	35	9	315
Job Data API (Indeed API or equivalent)	200	9	1800
Payment Processing (Stripe, Paypal Fees)	Usage-based	-	1,000 est.
Affinda Resume Parser API	160	9	1440
SendGrid (Transactional Email)	30	9	270
GitHub (Developer Plan)	4	9	72
Subtotal	-	-	3,897

3. Human Resources & Operational Costs

Role	Monthly Salary (\$)	Headcount	Months	Total (\$)

Full-Stack Developer	12,000	2	9	216,000
Product Manager	15,000	1	9	135,000
UI/UX Designer	9,500	1	9	85,500
QA Tester (Part-Time)	5,500	1	9	49,500
Marketing Specialist	9,500	1	9	85,500
Customer Support (PT)	4,500	1	9	40,500
Subtotal	-	-	-	612,000

4. Marketing, Legal, & Miscellaneous Costs

Item	Cost per Month (\$)	Months	Total(\$)
Digital Advertising (Meta, Google)	1,000	9	9,000
Legal & Business Registration	One-time	-	2,000
Miscellaneous (tools, testing, software)	One-time	-	5,000
Subtotal	-	-	\$16,000

Total Initial Development Cost

total_cost = Infrastructure & Platform + Third-Party APIs & Licensing + Human Resources & Operations + Marketing, Legal, Miscellaneous

Thus, our total estimated initial development cost is **\$632,602**

Revenue Model & ROI Estimates

GetAJob's revenue model includes sponsored job postings, premium subscriptions, and enterprise API access. Below is our estimated first-year revenue breakdown:

Revenue Source	Monthly Revenue (\$)	Assumptions
Sponsored Job Postings	50, 000	500 listings × \$100/listing
Premium Job Seeker Subscription	4, 500	500 users × \$9/month
Enterprise API Access	10, 000	20 companies × \$500/month
Total Monthly Revenue	64, 500	

First-Year Projected Revenue:

First-Year Projected Revenue = Total Monthly Revenue * 12 = \$ 774, 000

ROI Calculation:

$$ROI = \frac{\text{Total Revenue} - \text{Initial Investment}}{\text{Initial Investment}} \times 100\%$$

$$ROI = \frac{774,000 - 632,602}{632,602} \times 100\%$$

ROI = 22.35%

Payback Period:

$$\text{Payback Period} = \frac{\text{Initial Investment}}{\text{Monthly Revenue}} = \frac{\$632,602}{\$64,500} = 9.81 \text{ months}$$

Our development and operational efforts are structured over a 9-month period, during which a cross-functional team—including full-stack developers, a product manager, a UI/UX designer, a QA tester, a marketing specialist, and customer support—will drive the platform from prototype to public launch. The total estimated investment over this 9-month period is \$632,602, covering salaries, infrastructure, third-party tools, and marketing.

Although the development cycle spans 9 months, the payback period—the time required to recover the initial investment—is projected to be approximately 9.81 months, based on a forecasted monthly revenue of \$64,500. This reflects the expected delay between product launch and full monetization, and is typical for GetAJob startups in our first year.

This timeline enables us to deploy a fully functional platform, grow a user base, and begin generating steady revenue, while laying the foundation for long-term profitability and scale.

5. Technical Aspects of the Project

System Architecture and Technology Stack

To create a seamless and efficient job search platform, we are integrating multiple technologies aimed at enhancing user experience and improving job application success rates. The system architecture is designed to support a robust backend powered by Python and a dynamic frontend developed using HTML, CSS, JavaScript, and PHP. This combination ensures smooth client-server interactions, high performance, and responsive design.

Data Sources and Processing

A central component of the platform is its data-driven foundation. We will utilize a comprehensive dataset from Kaggle that provides insights into job market trends, hiring patterns, and industry-specific requirements. To support technical interview preparation, additional data will be sourced from platforms such as LeetCode and InterviewBit. One of the standout features of the system is the implementation of keyword matching for ATS (Applicant Tracking Systems), ensuring that user resumes are optimized to pass automated recruiter screenings.

Backend Development (Python)

The backend will be developed in Python, using frameworks such as Flask or Django to manage API endpoints and user interactions. This layer will handle core functionalities like user authentication, resume processing, job tracking, and application management. Advanced data processing techniques will be applied to clean and analyze input from users and job postings. Furthermore, machine learning models will be incorporated to offer personalized job recommendations, identify skill gaps, and generate resume scores. These features will help users improve their application quality and relevance to posted job roles.

Frontend Development (HTML, CSS, PHP)

The frontend is designed to provide a smooth and intuitive experience across devices. Built using HTML, CSS, and JavaScript, it ensures a responsive and visually appealing user interface. PHP will be utilized for managing client-server communication, enabling real-time features such as resume uploads, job application tracking, and personalized content delivery. The focus is on delivering a user-friendly design that supports easy navigation and immediate feedback.

Hosting and Deployment

The platform will be hosted on GoDaddy, offering a reliable and secure hosting environment. MySQL will be used for managing the database, storing structured data such as user profiles, job listings, application records, and interview preparation materials. This setup ensures scalable data access and integrity across all services.

Development Environment

Visual Studio Code (VS Code) will serve as the primary development environment. Its integrated development tools and debugging features will streamline the development process and support efficient integration of backend and frontend components.

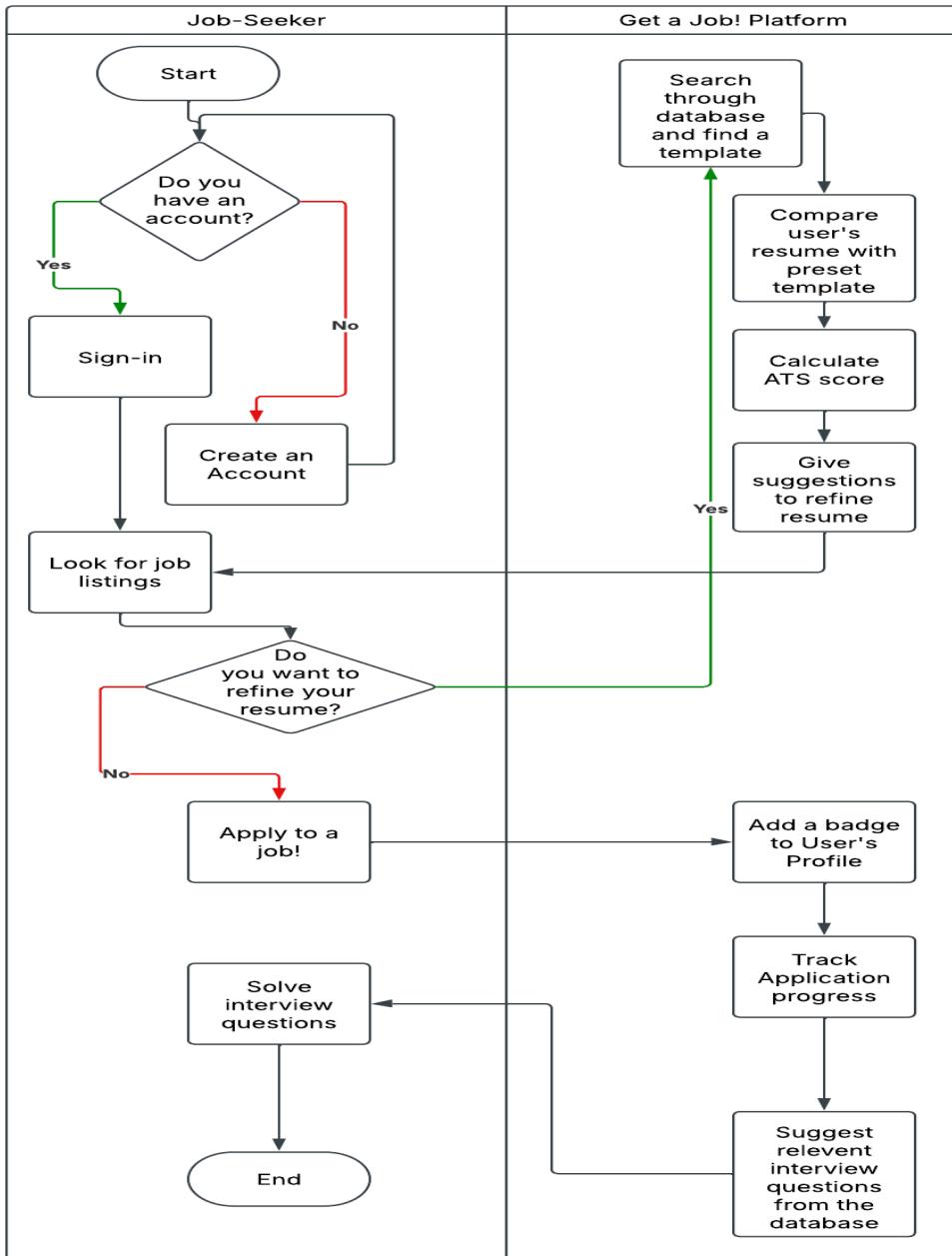
By combining intelligent data processing, resume optimization, and targeted interview preparation, our platform goes beyond traditional job listing portals. It offers a holistic solution that empowers users to enhance their applications, prepare strategically, and increase their chances of securing meaningful employment.

Requirement Specifications and Models

1. Activity Diagrams (process flow)

Job Seeker's Perspective:

Job Recruiter's Perspective:



Job Seeker Workflow Narrative

The job search journey on the platform begins when a job seeker initiates the system. At the outset, the platform checks whether the user already has an account. If the job seeker confirms having an account, they proceed to the sign-in process. Otherwise, they are guided through the account creation procedure, which is a prerequisite for accessing the platform's features.

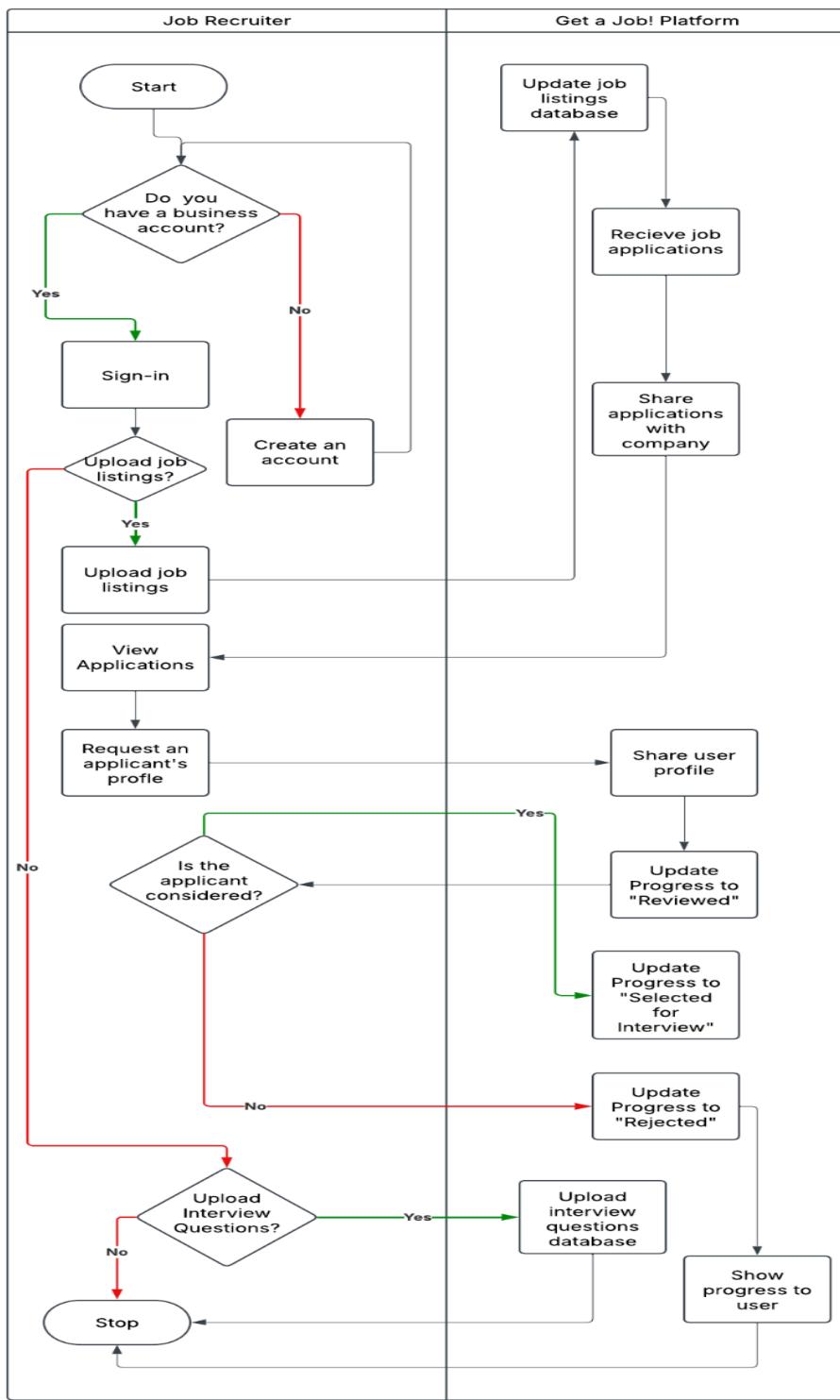
Once logged in, the user enters the job search phase, where they begin browsing through curated job listings based on their profile and preferences. At this stage, the platform offers an optional resume refinement check to improve the applicant's chances of success. The user is asked whether they would like to refine their resume before applying to jobs. If the user opts to bypass this step, they proceed directly to the application process.

If the user chooses to refine their resume, the platform performs several automated tasks to enhance document quality. It searches the database for the most suitable resume template based on the user's target industry and role. The platform then compares the user's uploaded resume with this standardized template to calculate an ATS (Applicant Tracking System) score. Based on the scoring results, tailored suggestions are provided to help the job seeker improve formatting, keyword usage, and overall structure to meet recruiter expectations.

Following resume refinement (or skipping it), the job seeker applies for a selected job. The platform confirms the application by updating the user's profile with a status badge, which acts as a visual indicator of job application progress. Simultaneously, the system logs this activity in the application tracker, allowing users to monitor the status of each application in real time.

To further support candidate success, the platform introduces an interview preparation phase. Drawing from its database of behavioral, technical, and company-specific questions, it automatically suggests relevant interview practice content aligned with the job applied for. The job seeker can then engage with these questions and simulations to strengthen their readiness for upcoming interviews.

The workflow concludes after the job seeker has completed the interview preparation step. Throughout this process, the platform emphasizes intelligent automation, structured decision-making, and personalized guidance. Key features such as ATS score-based resume analysis, automated interview question recommendations, and application tracking are seamlessly integrated to create a holistic and efficient job search experience.



Job Recruiter Workflow Narrative

The recruiter's journey on the platform begins when a job recruiter initiates the system. The first step involves verifying whether the recruiter already has a business account. If they do, they proceed to sign in and access the dashboard. If not, the platform guides them through the account creation process, ensuring only verified business users can engage with recruitment functions.

Once authenticated, the recruiter is prompted to decide whether they wish to upload job listings. If the recruiter opts to upload listings, they are provided with tools to enter job details, which are then stored in the platform's Job Listings Database. Upon successful upload, recruiters can begin viewing applications submitted by job seekers for the posted roles. This allows for seamless management of incoming candidates and enables immediate access to applicant profiles.

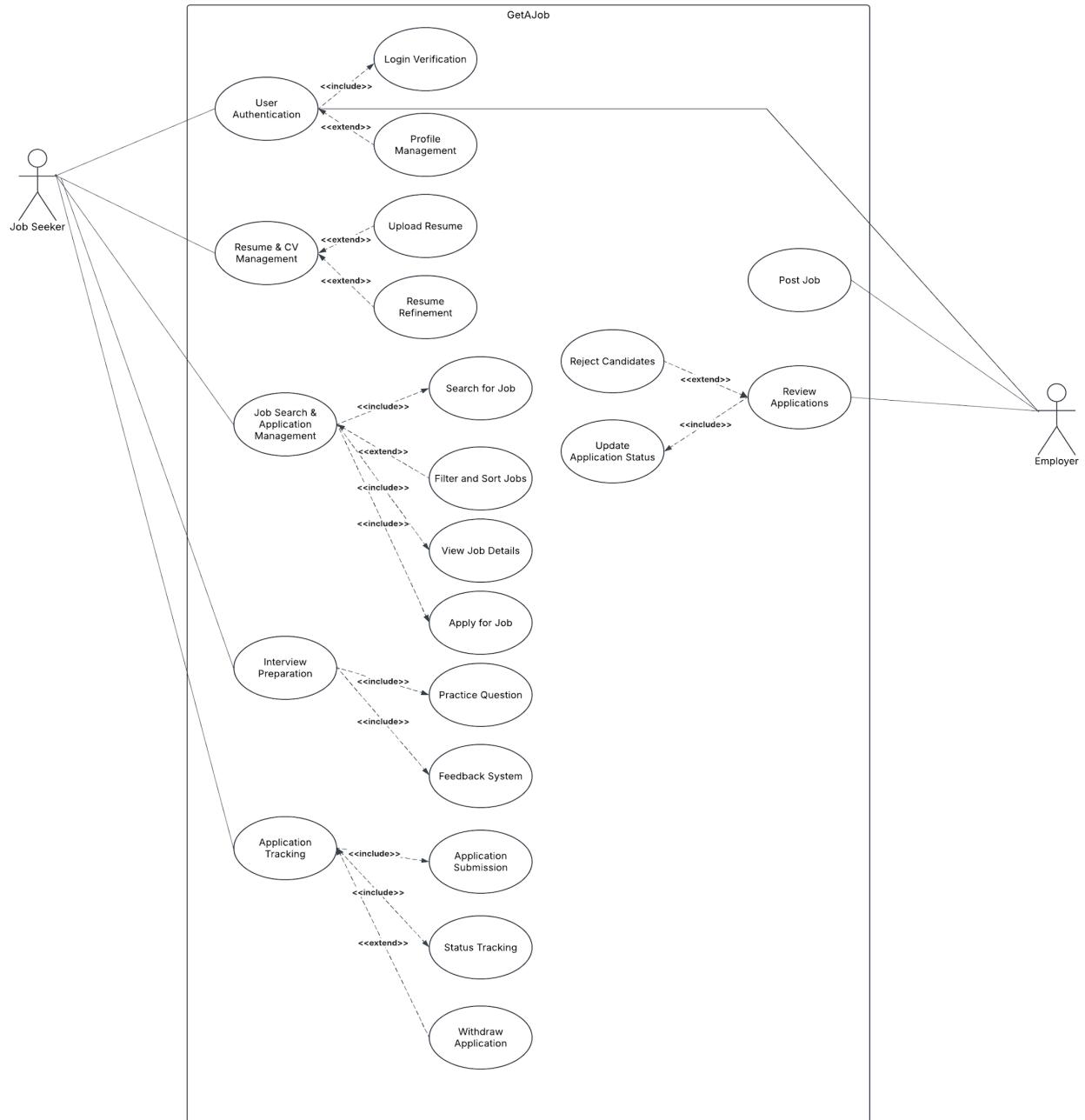
If the recruiter chooses not to upload job listings, the platform offers an alternative action by asking whether they would like to contribute interview questions. This feature ensures that recruiters can still participate in enhancing the platform's interview preparation resources, even if they are not actively hiring. If they agree, the uploaded questions are stored securely in the Interview Questions Database. Should the recruiter decline both options, the process concludes at this point.

In cases where recruiters proceed to review applications, they can request specific applicant profiles for evaluation. Upon request, the platform retrieves and shares the applicant's profile, including resume, skills, and relevant application details. The recruiter then assesses the application and makes a decision on the candidate's status. If the applicant is deemed suitable, the platform updates their status to "Reviewed" followed by "Selected for Interview". This updated status is visible to both the recruiter and the job seeker. Alternatively, if the recruiter chooses not to proceed with the applicant, the status is updated to "Rejected", and the job seeker is notified accordingly.

Following a rejection, the recruiter is again given the option to contribute interview questions to the platform. If they decline, the session ends. If they choose to proceed, additional interview content is added to the system's database, enriching the preparation resources available to future candidates.

This workflow reflects a flexible recruiter experience that allows multiple entry points into the platform's ecosystem. Recruiters are not mandated to upload job listings in order to participate—they may instead contribute interview material or focus solely on reviewing applicants. Throughout the process, the platform ensures that databases for job listings and interview content are automatically updated. In turn, job seekers benefit from real-time progress updates on their applications, which fosters transparency and improves the overall candidate experience.

Use case



The Use Case Diagram represents the system's core functionalities, depicting the interactions between Job Seekers, Employers, and the system's significant processes.

The Job Seeker is a primary actor in this system, engaging in multiple essential functions. The first step for any user is User Authentication, which ensures secure access. This process includes Login Verification as a mandatory step, while Profile Management is an optional extension, allowing users to update their personal information. Once authenticated, job seekers can explore the platform's Resume & CV Management functionality, which includes uploading and refining

resumes. Resume refinement helps optimize job seekers' profiles, making their application more competitive.

A key platform component is Job Search & Application Management, which enables users to search for jobs. This functionality includes filtering and sorting job listings to streamline the search process, viewing detailed job descriptions, and applying for positions. The Apply for Job use case requires uploading a resume before applying. Once an application is submitted, the Application Tracking module helps job seekers monitor their applications. This process includes status tracking and provides an optional feature to withdraw applications when necessary. The Interview Preparation feature supports users in their job search journey by offering Practice Questions and a Feedback System, ensuring they are well-prepared for interviews.

Employers interact primarily with the Post Job and Review Applications use cases on the other side of the system. After posting job listings, employers review applications and update their statuses. The Update Application Status use case is included within the Review Applications function, ensuring employers can efficiently manage applicant progress. Reject Candidates is an extension of the review process, allowing employers to take necessary action when an applicant is not a suitable fit.

This Use Case Diagram effectively demonstrates the structured workflow within GetAJob, ensuring that job seekers and employers have clearly defined actions, leading to an efficient hiring process.

2. Scrum

User Stories

Backlog (12 issues)		47	11	0	o	Create sprint
Create a whiteboard to plan your work	TRY					...
SCRUM-27	As a job seeker, I want to upload my resume so that the system can analyze and optimize it for ATS compatibility.	RESUME & APPLICATION	IN PROGRESS	3	➤	
SCRUM-28	As a job seeker, I want to track my job applications so that I can manage my progress efficiently.	JOB APPLICATION T...	TO DO	5	➤	
SCRUM-29	As a job seeker, I want to prepare for interviews with mock sessions so that I can improve my chances of success.	INTERVIEW PREPARA...	IN PROGRESS	3	➤	
SCRUM-30	As a job seeker, I want to connect with industry professionals and mentors so that I can get career guidance.	JOB APPLICATION T...	TO DO	8	▬	
SCRUM-31	As a job seeker, I want to see a dashboard of my job search progress so that I can track my applications and interview...	JOB APPLICATION T...	IN PROGRESS	5	▬	
SCRUM-32	As an admin, I want to monitor system performance so that I can ensure the platform runs smoothly without downtime.	PLATFORM INFRASTR...	TO DO	5	➤	
SCRUM-33	As an admin, I want to ensure regular data backups so that I can restore information in case of system failures.	USER AUTHENTICATIO...	TO DO	3	➤	
SCRUM-34	As an admin, I want to detect and prevent spam or fraudulent activities so that I can maintain the platform's credibility.	USER AUTHENTICATIO...	TO DO	8	➤	
SCRUM-35	As an admin, I want to schedule and deploy system updates so that I can ensure the platform stays up-to-date with the latest technology.	PLATFORM INFRASTR...	TO DO	5	➤	
SCRUM-36	As a recruiter, I want to view ATS-optimized resumes so that I can quickly assess candidate qualifications.	RESUME & APPLICATION	TO DO	3	▬	
SCRUM-37	As a recruiter, I want to schedule and manage interviews so that I can streamline the recruitment process.	INTERVIEW PREPARA...	TO DO	5	▬	
SCRUM-38	As a recruiter, I want to create and manage job postings so that I can attract suitable candidates.	JOB APPLICATION T...	TO DO	5	➤	

In the context of this job-seeking platform, user stories reflect three core personas—job seekers, admins, and recruiters—and emphasize key requirements such as uploading resumes, managing platform maintenance, and viewing ATS-optimized candidate profiles. This unified approach

ensures that the resulting software addresses real-world concerns, ranging from seamless interview preparation for job hunters to robust data-backup protocols for system administrators.

Product Backlog

Product 21 Feb – 10 Mar (13 issues)		92	21	0	Complete sprint	...
The product backlog outlines all key features and tasks required for the "Jobber" job search platform. It is an evolving list that will be refined and prioritized across multiple sprints.						
<input checked="" type="checkbox"/> SCRUM-12	Job Listings Aggregation	JOB SEARCH & RECO...	IN PROGRESS	8		
<input checked="" type="checkbox"/> SCRUM-15	ATS Keyword Matching System	RESUME & APPLICAT...	IN PROGRESS	8		
<input checked="" type="checkbox"/> SCRUM-21	Job Application Tracker	JOB APPLICATION T...	IN PROGRESS	5		
<input checked="" type="checkbox"/> SCRUM-13	Personalized Job Recommendations	JOB SEARCH & RECO...	TO DO	13		
<input checked="" type="checkbox"/> SCRUM-17	Resume Score & Enhancement Suggestions	RESUME & APPLICAT...	TO DO	8		
<input checked="" type="checkbox"/> SCRUM-18	Mock Interview Platform	INTERVIEW PREPARA...	TO DO	8		
<input checked="" type="checkbox"/> SCRUM-19	Technical Skill Assessment	INTERVIEW PREPARA...	TO DO	8		
<input checked="" type="checkbox"/> SCRUM-22	Dashboard & Analytics	JOB APPLICATION T...	TO DO	8		
<input checked="" type="checkbox"/> SCRUM-24	Frontend Development (HTML, CSS, PHP)	PLATFORM INFRAST...	TO DO	13		
<input checked="" type="checkbox"/> SCRUM-25	Backend Development (Python,MySQL)	PLATFORM INFRAST...	TO DO	13		
<input checked="" type="checkbox"/> SCRUM-26	Hosting & Deployment (GoDaddy Server)	PLATFORM INFRAST...	TO DO	5		
<input checked="" type="checkbox"/> SCRUM-10	User Registration & Login System	USER AUTHENTICATI...	TO DO	8		
<input checked="" type="checkbox"/> SCRUM-11	User Profile Creation & Management	USER AUTHENTICATI...	TO DO	8		

+ Create issue

Sprint 1's product backlog centered on building the core architecture of the job platform. The main priorities were user authentication, resume parsing, and administrative functions to support user and data management. These foundational components were chosen because they enabled all other features planned for future sprints, especially those requiring user data validation and secure access.

3. Sprint 1

Sprint backlog

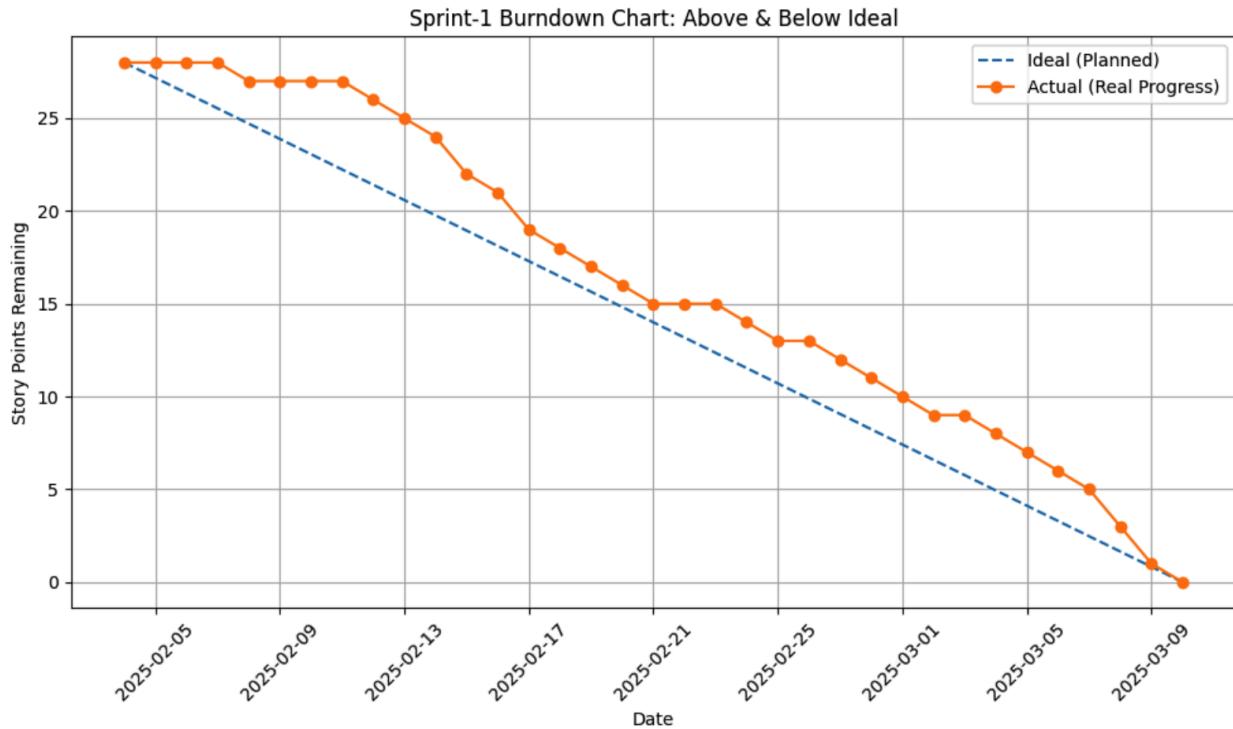
Sprint 1 4 Feb – 10 Mar (7 issues)		0	18	19	Complete sprint	...
Develop the initial version of the job search platform, focusing on data collection, system architecture, and front-end setup.						
<input checked="" type="checkbox"/> SCRUM-1	Business Case Finalization	DONE		27 JAN	3	
<input checked="" type="checkbox"/> SCRUM-5	System Architecture & Technology Stack Finalization	DONE		11 FEB	5	
<input checked="" type="checkbox"/> SCRUM-2	Data Collection & Preprocessing	DONE		05 FEB	8	
<input checked="" type="checkbox"/> SCRUM-7	Task Assignments & Sprint Review Preparation	DONE		29 JAN	3	
<input checked="" type="checkbox"/> SCRUM-3	ATS Keyword Matching Implementation (Basic Version)	IN PROGRESS			8	
<input checked="" type="checkbox"/> SCRUM-4	Backend API Development (Initial Setup)	IN PROGRESS			5	
<input checked="" type="checkbox"/> SCRUM-6	Front-End Development Setup	IN PROGRESS			5	

+ Create issue

Derived from the product backlog, the sprint backlog included tasks such as setting up user login/logout flows, implementing the resume parsing function, initiating external job API integration, and designing the ATS scoring logic. Additionally, the sprint included UI scaffolding

and admin-side tools for platform maintenance and data backup. These tasks were broken into user stories and estimated using story points, with a total of 28 points allocated.

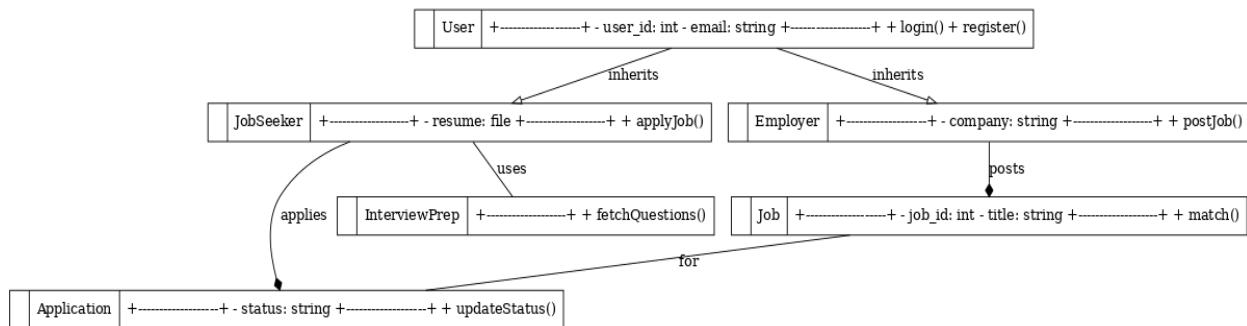
Burndown chart



The burndown chart for Sprint 1 reflected a typical Agile rhythm. The team began slowly during the first week as setup and initial configurations took longer than expected. However, momentum picked up mid-sprint, and the actual progress line crossed below the ideal trend line. The team maintained steady progress through the second half of the sprint, eventually finishing with all story points completed slightly ahead of schedule.

Detailed Software/Systems Design

1. Class Diagram



Class Diagram Overview

The class diagram for the Get a Job! platform models the object-oriented architecture of the system, outlining key entities, their attributes, behaviors (methods), and relationships. This structural blueprint plays a critical role in defining how different components of the platform interact to support core functionalities such as user authentication, job posting, resume submission, interview preparation, and application tracking.

Core Classes and Descriptions

At the foundation of the system lies the `User` class, which serves as an abstract base class for all platform participants. It encapsulates common attributes such as `user_id`, a unique identifier, and `email`, the user's registered contact. It also defines essential behaviors like `login()` and `register()` methods for authentication and account creation. This class is extended by two concrete subclasses: `JobSeeker` and `Employer`.

The `JobSeeker` class inherits from `User` and introduces functionality specific to applicants. It includes a `resume` attribute to store uploaded documents and an `applyJob()` method to allow users to submit applications. In terms of relationships, `JobSeeker` uses the `InterviewPrep` class for accessing interview preparation tools and interacts with the `Application` class when submitting job applications.

The `Employer` class, also derived from `User`, includes a `company` attribute that denotes the employer's affiliation. Its primary method, `postJob()`, enables employers to create and publish job listings. Employers are directly associated with the `Job` class, establishing the ability to manage postings within the platform.

The `Job` class represents employment opportunities available on the system. It contains a `job_id` and `title` to uniquely define each role, along with a `match()` method, which could be augmented with intelligent algorithms to identify suitable candidates. Jobs are created by `Employers` and linked to `Application` objects when `JobSeekers` apply.

The `Application` class functions as the bridge between `JobSeekers` and `Jobs`. It stores the status of each submission (e.g., `submitted`, `in review`, `rejected`) and provides an `updateStatus()` method to modify the state as the application progresses. Applications are always associated with one `Job` and one `JobSeeker`, capturing the many-to-one relationships typical in real-world recruiting systems.

Lastly, the `InterviewPrep` class plays a support role, offering a `fetchQuestions()` method that retrieves role-specific or company-specific interview content. This class is tightly integrated into the `JobSeeker` workflow, equipping candidates with the resources necessary to succeed in interviews.

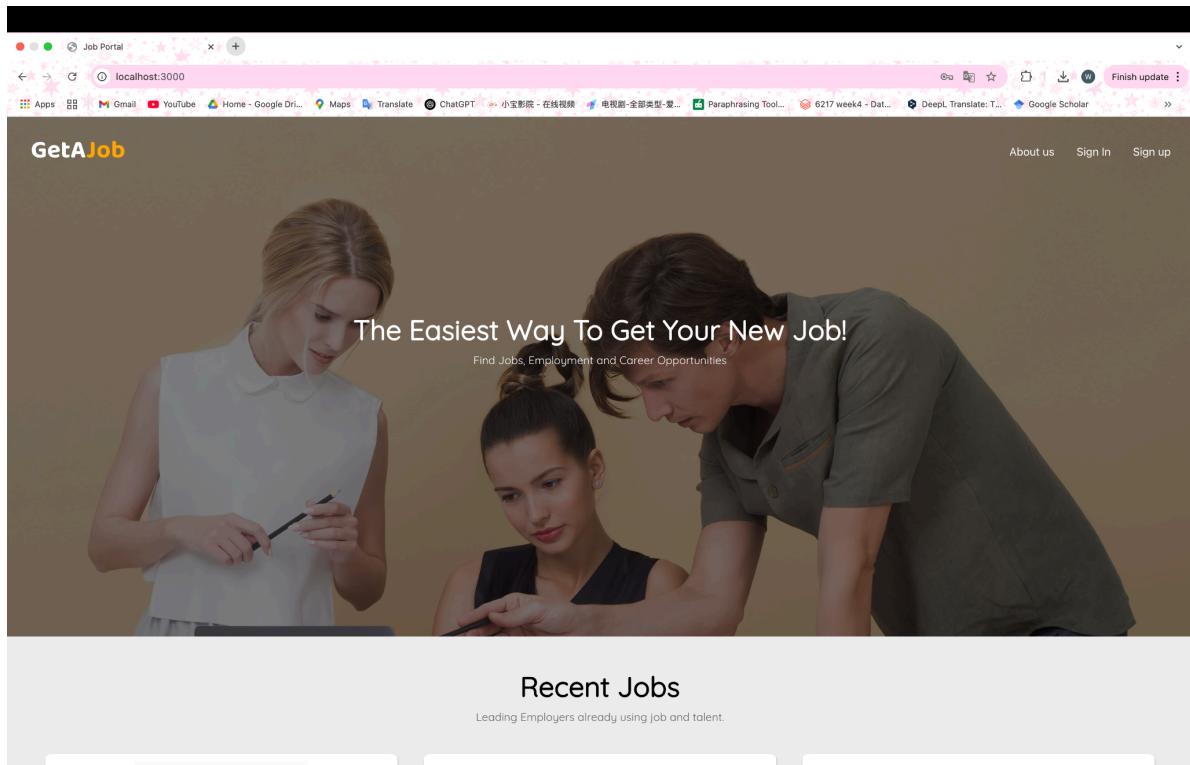
Relationships and Design Patterns

The diagram employs several standard object-oriented relationship types. Inheritance is used to define shared behavior and attributes through the User superclass, from which both JobSeeker and Employer derive. Associations represent usage and dependencies: JobSeekers use InterviewPrep, Employers post Jobs, and JobSeekers apply to Jobs via Applications. The Application class serves as a relational bridge between users and jobs, facilitating bidirectional tracking of job activity.

This class structure promotes modularity, reusability, and scalability, providing a solid foundation for feature expansion, such as skill gap analysis, recruiter analytics, and AI-powered job matching.

2. Screens and Screen Flow (Human Computer Interaction)

Screen 1 - Home Page_Banner



Screen 2 - Home Page_Recent Jobs

The screenshot shows the 'Recent Jobs' section of the GetAJob website. It displays six job listings in a 2x3 grid:

- Deutsche Bank** (Data Analyst position) in New York, NY.
- NVIDIA** (System Software Engineer position) in Santa Clara, CA.
- CREDIT SUISSE** (Web Designer / Developer position) in Raleigh, NC.
- Google** (Data Scientist position) in Mountain View, CA.
- amazon** (Marketing Director position) in Seattle, WA.
- IBM** (UI / UX Designer position) in Armonk, NY.

Each listing includes the company logo, job title, location, and a red 'APPLY NOW' button.

Screen 3 - Home Page_Job Hunt Site Stats

The screenshot shows the 'Job Hunt Site Stats' section of the GetAJob website. It features a background image of two people's hands clasped together. Overlaid on the image are four large numbers representing statistics:

- 42 Jobs Posted
- 20 Jobs Filled
- 67 Companies
- 80 Members

Below these stats is a heading 'Companies We've Helped' followed by a list of company logos.



Screen 4 - Home Page _ Clients Review

The screenshot shows the 'GetAJob' website's home page. At the top, there is a navigation bar with links for 'About us', 'Sign In', and 'Sign up'. Below the navigation is a large banner with the heading 'Kind Words From Our Clients' and a subtitle 'what other people thought about the service provided by us..'. Three testimonial cards are displayed, each featuring a user's profile picture, name, title, and a short quote. The background of the banner features a photograph of several people smiling.

Testimonials:

- Qing** Web Designer
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
- Michael** Data Scientist
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.
- Verma** Human Resources
Lorem ipsum dolor sit amet, consectetur adipiscing elit, sed do eiusmod tempor incididunt ut labore et dolore magna aliqua.

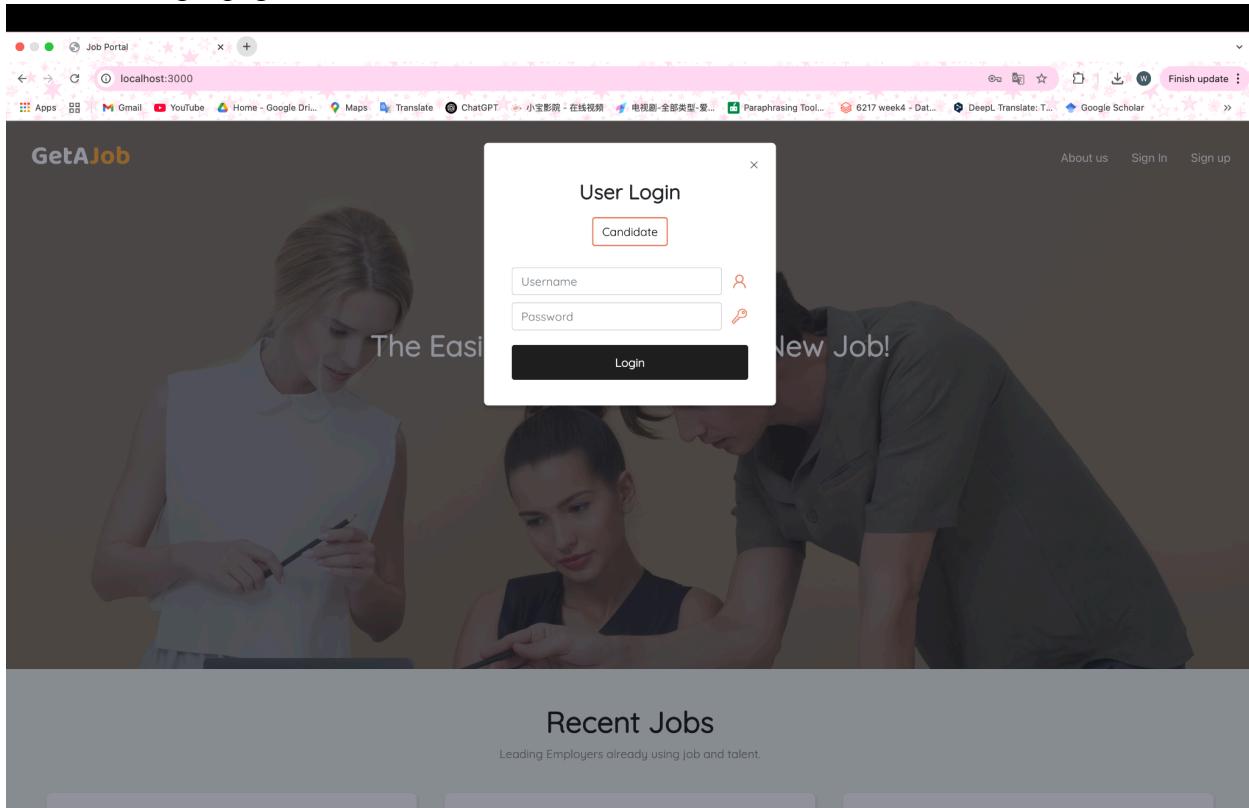
Got a Question?
We're here to help. Check out our FAQs, send us an email or call us at 1800-200-9899

[Sign Up](#)

Screen 5 - Sign-up page

The screenshot shows the 'GetAJob' website's sign-up page. A modal window titled 'Sign Up' is open in the center. It has a 'Candidate' tab selected. The form contains fields for 'Username', 'Name', 'Password', 'Email', and 'Phone no.', each with a corresponding icon. Below the form is a 'Sign Up' button and a 'Sign In' link. The background of the modal shows a woman writing on a clipboard. The main page features a large image of a man and a woman, with the text 'The Easiest Way To Find A Job!' and 'New Job!' overlaid. At the bottom, there is a section for 'Recent Jobs' with the subtext 'Leading Employers already using job and talent.'

Screen 6 - Login page



Screen 7 - Dashboard

A screenshot of the 'Candidates Dashboard' for the 'GetAJob' website. The dashboard is titled 'Candidates Dashboard' and features a large orange circular progress bar with a white 'C' and '85%' text, indicating profile completeness. On the left, a sidebar lists navigation options: 'Profile', 'Build Resume', 'Applied Jobs', 'Resume', and 'Logout'. Below this is a section for 'Profile Completeness' with a note about increasing skill up to 15%. The main area is divided into four sections: 'My Profile' (with a person icon), 'My Resume' (with a document icon), 'Applied Jobs' (with a briefcase icon), and 'My Resume' (with a resume icon). Each section has a 'View Profile' or 'View Applications' link. The top navigation bar includes links for 'About us', 'Sign In', and 'Sign up', and the address bar shows 'localhost:3000/Dashboard'. The background features a photograph of two men looking at a tablet screen.

Screen 8 - Dashboard_Filters

The screenshot shows the Job Portal dashboard. At the top, there's a header bar with various links like 'Job Portal', 'localhost:3000/Dashboard', and social media icons. Below the header are three main sections: a circular progress bar showing '85%', a section for 'Applied Jobs' with a 'View Applications' button, and a section for 'My Resume' with a 'Build Resume' button. A large central box titled 'Recent Jobs' displays a list of recent employer entries. On the left side of this box, a sidebar shows filter options: 'No Filters Selected' at the top, followed by checkboxes for 'IT', 'Testing', 'HR', and 'Finance'. To the right of the filters is a red 'Apply Filters' button. The background features a dark theme with a 'GetAJob' logo and some text about frequently asked questions.

Screen 9 - My Profile

The screenshot shows the 'My Profile' page. On the left, a sidebar lists navigation options: 'Dashboard', 'Profile' (which is active), 'Build Resume', 'Applied Jobs', 'Resume', and 'Logout'. Below this is a 'Profile Completeness' section with a progress bar showing '85%'. The main content area is titled 'My Profile' and contains a placeholder profile picture with an 'Edit Profile Picture' button. Under the 'Personal Details' heading, there are several input fields: 'Full Name' (Wanqing Chen), 'Gender' (Male), 'DOB' (03/24/2025), 'Qualification' (Diploma), 'Job Title' (empty), 'Current Company' (empty), 'Experience' (empty), 'Current Salary (₹)' (empty), and a 'Description' field (empty). There are also 'Edit Profile' and 'Edit Profile Picture' buttons with edit icons.

Screen 10 - My Resume

The screenshot shows a resume page titled "Wanqing Chen" at the top. Below the title is an "at" symbol followed by the email address "wanqing.chen@gwmail.gwu.edu". A small orange icon indicates the date "2025-03-24". A "Contact Wanqing" button with a red arrow icon is on the right. A navigation bar below the header includes links for "About", "Education", "Work Experience", "Skills", "Portfolio", and "Achievements".

About Me

Education

University
Year of Passing: 2023
CGPA: 3.5
George Washington University *Information system technology*

Skills

Machine Learning, data mining

Job Overview

Gender Male
Experience --
Qualification Diploma

Portfolio

GetAJob
Job seeking website.

Contact

Name

Screen 11 - Build Resume

The screenshot shows the 'Job Portal' application's resume builder feature. At the top, there is a navigation bar with links to 'Dashboard', 'Profile', 'Build Resume', 'Applied Jobs', 'Resume', and 'Logout'. Below this is a section titled 'Profile Completeness' with a large orange circular progress bar showing '85%'.

The main area is divided into several sections:

- Background**: Shows a graduation cap icon and details for 'University': Year of Passing: 2023, CGPA: 3.5, George Washington University, information system technology. Includes 'Add Education' and edit/delete icons.
- Work experience**: Shows a brief entry for 'GetAJob' as a job seeking website. Includes 'Add Experience' and edit/delete icons.
- Skills**: Shows 'Machine Learning' and 'data mining' with edit/delete icons. Includes 'Add Skill'.
- Portfolio**: Shows a brief entry for 'GetAJob'. Includes 'Add Project' and edit/delete icons.
- Achievements**: Shows a brief entry for 'Hello Wanqing!'. Includes 'Add Achievement' and edit/delete icons.

Screen 12 - Applied Jobs

The screenshot shows the 'Job Portal' application's applied jobs page. At the top, there is a navigation bar with links to 'Dashboard', 'Profile', 'Build Resume', 'Applied Jobs', 'Resume', and 'Logout'. Below this is a section titled 'Profile Completeness' with a large orange circular progress bar showing '85%'.

The main area features a large banner with two men looking at a screen, with the text 'Hello Wanqing!' overlaid. Below this is a section titled 'Applied Jobs' which displays the message 'No Applied Jobs :(

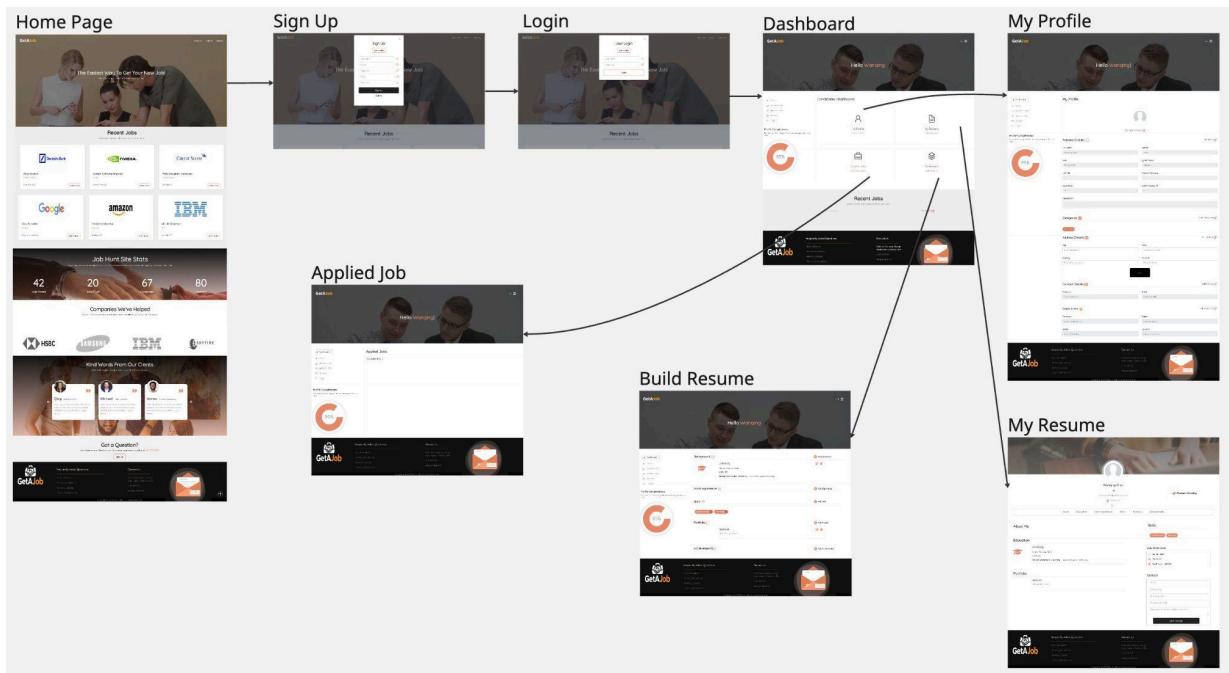
Screen Flow

This wireframe shows the main user flow of the GetAJob platform from a job seeker's perspective. The process starts on the Home Page, where users can browse recent job listings from well-known companies like Google, Amazon, and IBM. It also shows some basic site statistics, client testimonials, and a section encouraging users to sign up. At the top right corner, users can either sign up if they don't have an account or log in if they already do.

If the user selects Sign Up, they are directed to a form where they enter their username, name, password, email, and phone number. After completing registration, they are taken to the Login page to log into their new account. Existing users can go straight to the login page from the homepage.

After logging in, users arrive at the Dashboard, the platform's main control center. From here, they can access four key features: My Profile, My Resume, Build Resume, and Applied Jobs. Each leads to a separate page where users can update their information, build or edit their resumes, and view jobs they've already applied for.

There is also a Job Filter section at the bottom of the Dashboard. This allows users to narrow down job listings by category (IT, HR, Finance, etc.) without leaving the page. Finally, users can log out from the top-right menu at any time, no matter which page they're on, which will return them to the homepage.



3. Report

Applicant Report

The Job Seeker Activity Summary provides a detailed and personalized overview of an individual's engagement on the GetAJob platform. This report highlights key performance indicators to help users understand their job search behavior and progress. Metrics such as the total number of jobs viewed and applications submitted offer a snapshot of user activity, while the number of interviews received reflects the effectiveness of these efforts.

In addition to tracking user actions, the report incorporates AI-driven features to enhance job search outcomes. These include resume improvement suggestions tailored to the user's profile and job targets, and the number of mock interviews completed in the Interview Prep section. Such features help users refine their application materials and build confidence in their interview skills.

Furthermore, the report includes insights into the user's most frequently filtered job categories (e.g., IT, HR, Finance), offering a glimpse into their interests and job search focus. An application timeline visually outlines key stages—from application submission to interviews—while a profile completion score indicates how well the user has optimized their profile for recruiter visibility. This report is a valuable tool for job seekers to monitor their activity, identify patterns, and strategically prepare for future opportunities.

Company Report

The Employer Engagement and Job Analytics Summary offers hiring teams a comprehensive overview of how their job listings perform on the GetAJob platform. By presenting real-time engagement metrics and user behavior data, this report enables employers to assess the visibility and attractiveness of their job posts. Key indicators such as job post views, applications received, and conversion rates help measure candidate interest and the effectiveness of job descriptions.

In addition to performance tracking, the report provides valuable insights into applicant demographics, including regional distribution and experience levels. It also features average resume match scores, which compare applicant submissions against job requirements, giving employers a sense of candidate-job alignment. Metrics like time-to-first application and the number of interview requests sent further support timely and efficient hiring decisions.

The summary also highlights broader trends, such as the most viewed job categories and feedback from candidates regarding their application experience. These insights allow employers to refine their hiring strategies, enhance job descriptions, and improve engagement. Ultimately, this report empowers companies to make data-driven decisions that lead to better candidate matches and a more streamlined recruitment process.

4. Rules

Rules

Applicant Rules

This section outlines the core rules and requirements that govern applicant interactions on the GetAJob platform. These rules ensure a secure, consistent, optimized user experience throughout the job search process.

To begin using the platform, users must register with a **unique username, a valid email address, and a phone number** (BR1). Passwords must meet platform security standards by including **at least eight characters, one number, and one unique character** (BR2). Upon successful registration, users must **log in** to gain access to key features such as the dashboard, personal profile, and job application tools (BR3). To promote meaningful engagement, users must complete **at least 60%** of their profile before applying for any jobs (BR4). Applicants can either **upload a resume** or use the **in-platform resume builder** to create one (BR5).

All job-related actions are carefully tracked to enhance platform functionality and data accuracy. Each job application is **timestamped and stored** in the user's application history for reference (BR6). In contrast, **job views are counted once per session per user** to maintain the integrity of view analytics (BR7). Applicants can **filter job listings** by categories such as IT, HR, or Finance (BR8). Access to mock **interview tools** requires users to upload at least one resume (BR9), triggering **AI-generated resume improvement suggestions** based on job-specific keywords (BR10). Users receive **instant feedback** after completing a mock interview to help them prepare for real-world opportunities (BR11).

Company Rules

This section outlines the business rules for employers using the GetAJob platform. These guidelines ensure the system's integrity, accuracy, and consistency of job postings and employer-related activities.

Before posting any job listings, employers must complete a **company verification process** to validate their organizational identity (BR12). Each job post must contain essential information, including the **job title, required qualifications, location, and a precise expiration date** (BR13). To maintain the relevance of job listings, posts are set to **automatically expire 30 days** after publication unless they are **renewed by the employer** (BR14).

Additionally, platform-wide **site statistics**, such as the number of users and job listings posted, are refreshed every **24 hours** to provide up-to-date insights for employers and platform administrators (BR15). These rules collectively support a transparent and trustworthy environment for job seekers and hiring teams.

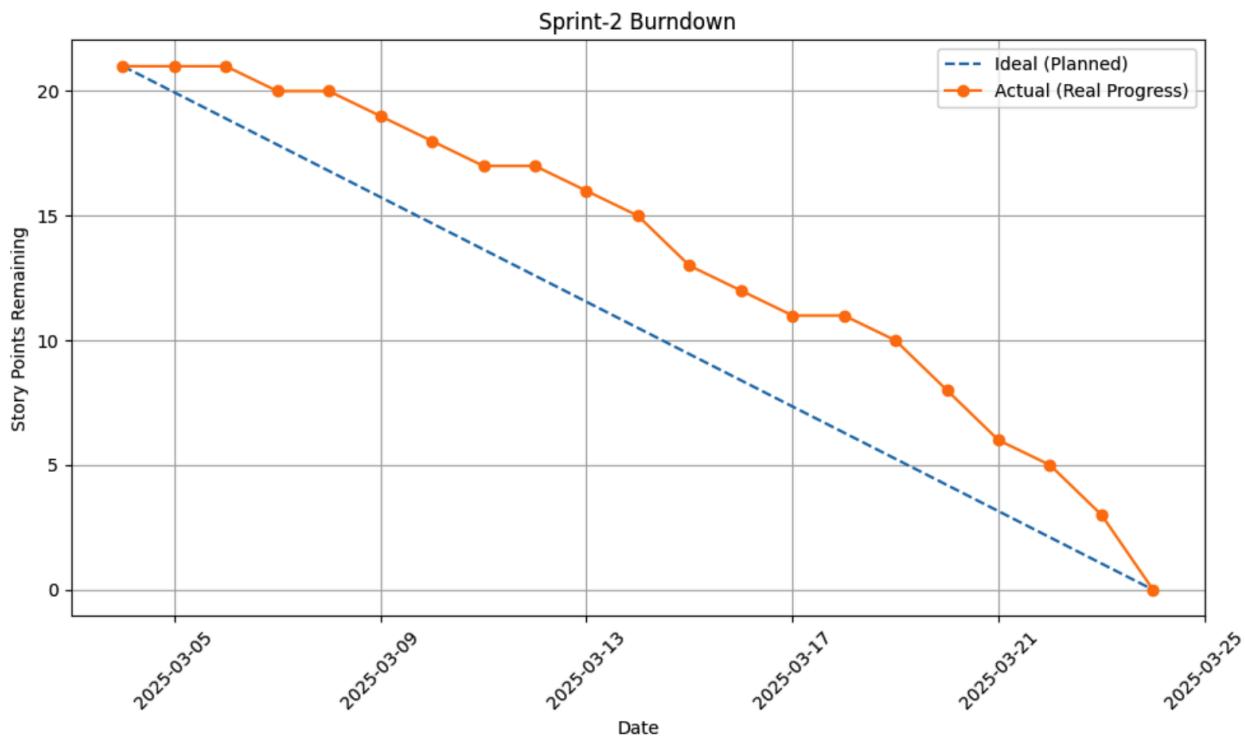
5. Sprint 2

Sprint Backlog

Sprint 2				
ID	Feature / Deliverable	Priority	Story Points	
P-7a	Refined auth (forgot-password, OAuth)	5	3	
P-7b	Home & dashboard UI polish	4	3	
P-8	Google-Forms survey-data ETL	5	5	
P-9	Automated survey-data pipeline (Airflow + storage)	5	5	
P-10	Component integration (API gateway, cache, queue)	4	3	
P-11	End-to-end regression & load tests	4	2	

The sprint backlog included implementing the login for applicants and recruiters, polishing the homepage and dashboard layout, automating survey data ingestion with Airflow, and ensuring seamless backend linkage between user sessions and form inputs. A total of 21 story points were committed, with tasks evenly distributed between frontend interface improvement and backend data processing automation.

Burndown chart

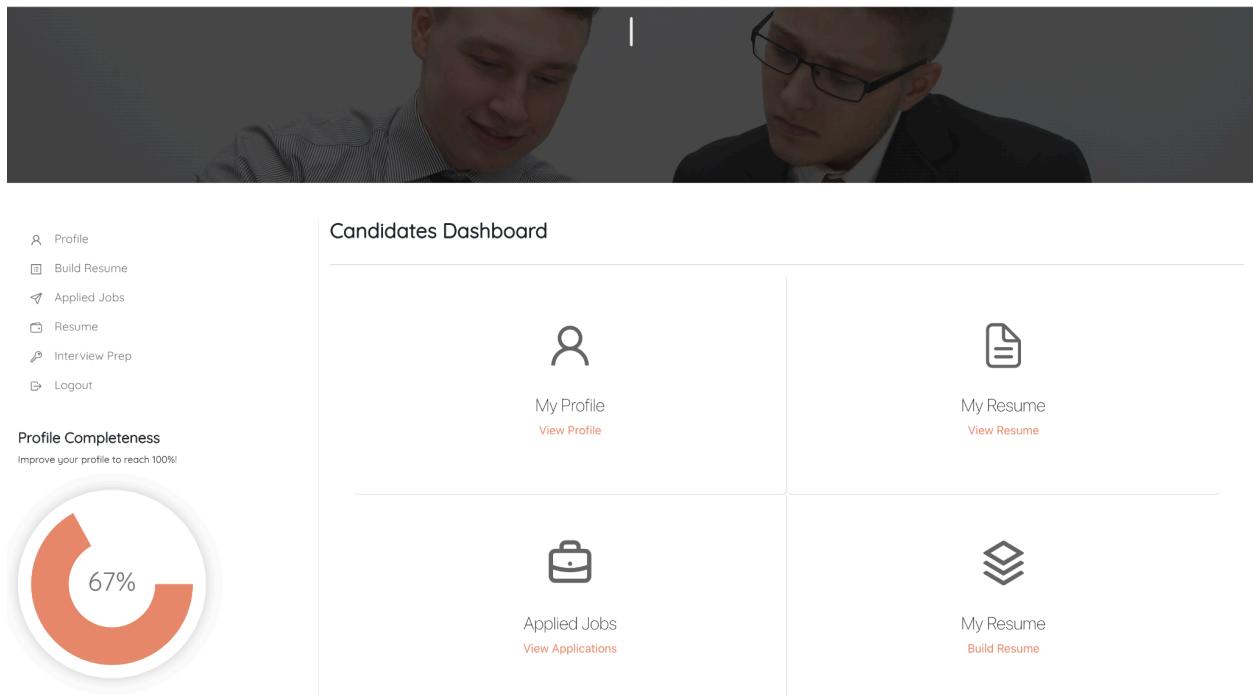


Sprint 2's burndown chart showed a slow start, with the actual progress line remaining above the ideal for the first several days. As blockers were resolved and integration tasks became clearer, the team accelerated. The midpoint saw the actual progress line begin to converge with the ideal line, and the team completed all remaining story points just in time. The result was a successful sprint with a finish closely aligned with expectations.

Other Features

1. Profile Completeness Calculation

We replaced the previously hardcoded progress indicator with a dynamic circle indicating completeness. The system now checks actual profile data stored in MongoDB, such as job title, education, and cover image, and updates the completeness percentage accordingly. This provides real-time feedback to users and encourages them to complete their profiles.



2. Job Listing and Category Filter

A job listing section was added to the dashboard, displaying jobs retrieved from the MongoDB Job collection. Users can filter job postings by category, such as IT, HR, or Finance. The filter updates the job list instantly on the front end, improving the user experience and interaction.

Recent Jobs

Leading Employers already using job and talent.

No Filters Selected Edit Filters



Test Developer
Google
Mountain View, CA APPLY NOW



Test Developer
Google
Mountain View, CA APPLY NOW



Test Developer
Google
Mountain View, CA APPLY NOW



Test Developer
Google
Mountain View, CA APPLY NOW



Project Manager
Microsoft
Redmond, WA APPLY NOW



Data Scientist
Facebook
Menlo Park, CA APPLY NOW

Recent Jobs

Leading Employers already using job and talent.

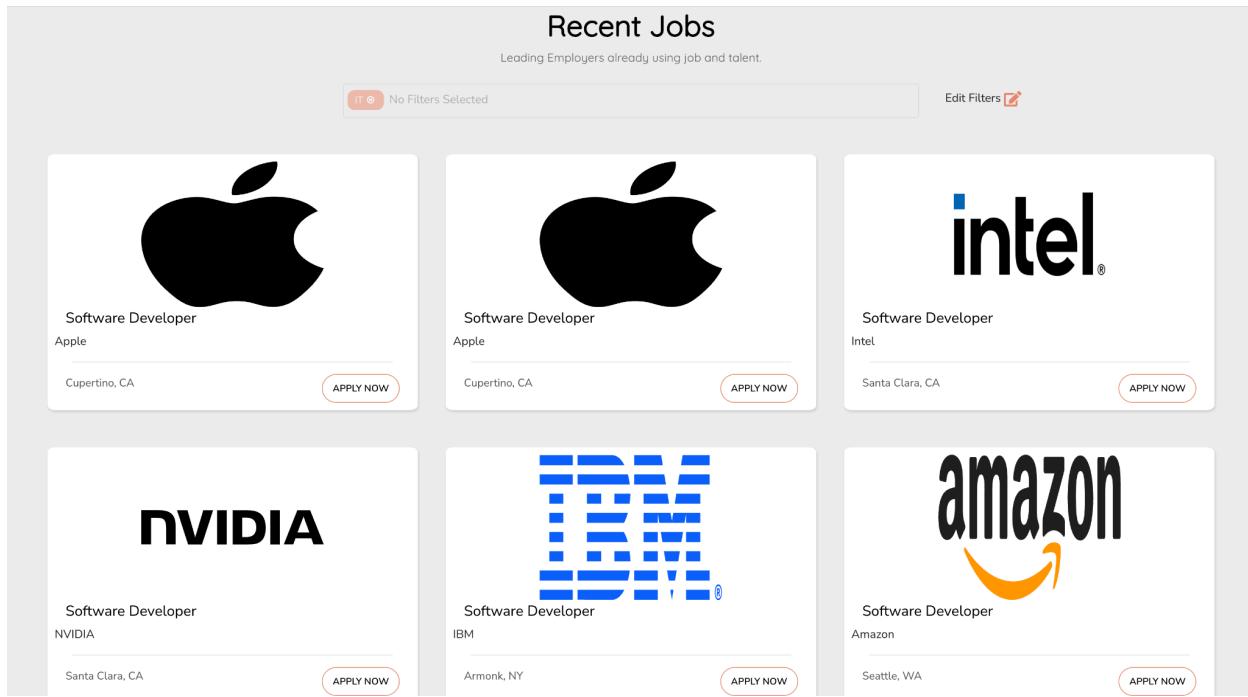
IT No Filters Selected Apply Filters

IT

Testing

HR

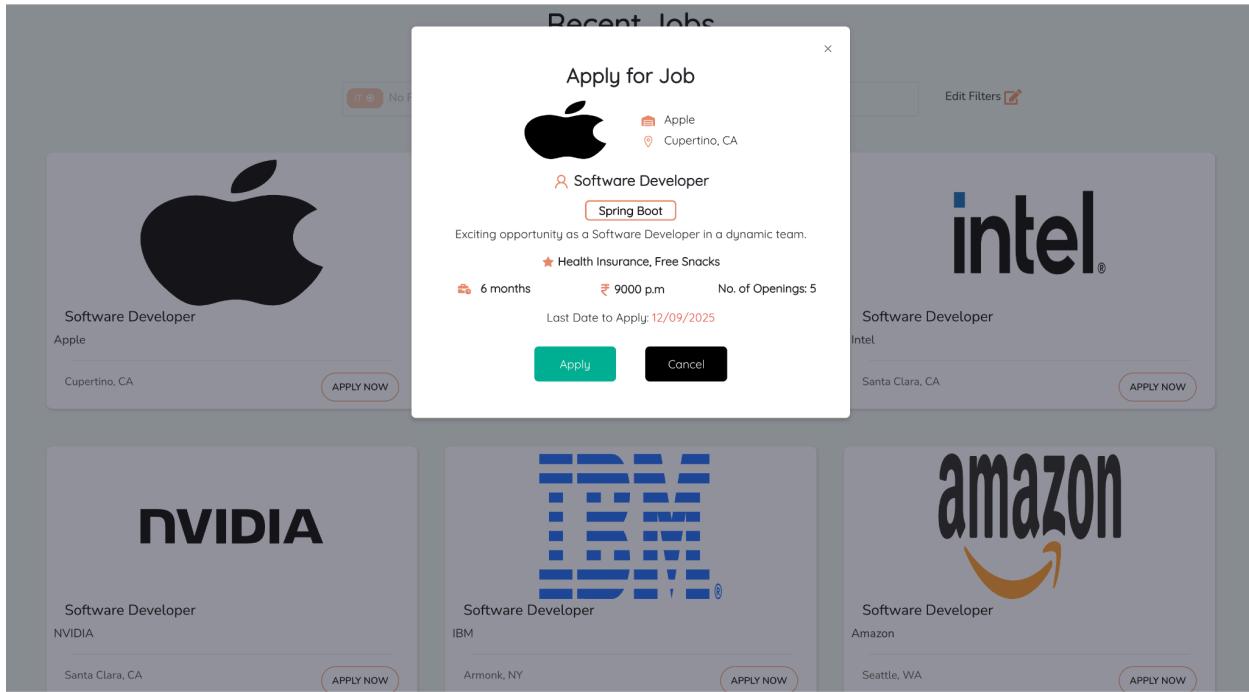
Finance



3. Apply Functionality

In this sprint, we implemented the core application mechanism that allows users to apply for job postings. Each job card displayed in the Job List now includes an “Apply” button. When a user clicks this button, the system creates a new record in the **Application** collection in MongoDB. This record contains the **jobID**, the **applicantID**, the application status, and the date of application.

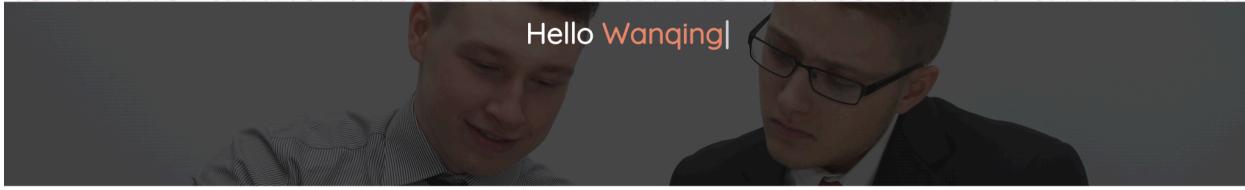
This function marks a key step in connecting user activity to backend data, enabling us to track job applications in a scalable way. The creation of a dedicated **Application** collection also makes it easier to manage job-user relationships, supporting further features like application history and status updates.



4. Applied Jobs Page

We also completed the development of the Applied Jobs page, where users can view the complete list of jobs they have previously applied to. This information is retrieved from the **Application** collection and matched with corresponding job data from the **Job** collection to display complete details.

To give users control over their application history, we introduced the Unapply function. From the Applied Jobs page, users can now withdraw a job application by clicking the trash can icon. This action removes the corresponding record from the **MongoDB application** collection. Since deletion is only available through the Applied Jobs interface, users have a transparent and centralized way to manage their applications.



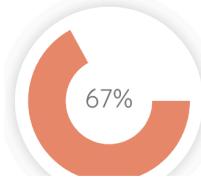
Hello Wanqing|

[Dashboard](#)

- [!\[\]\(633a0bea541171494bf7012b1bb09e69_img.jpg\) Profile](#)
- [!\[\]\(490d2227c58d34fddf0f17a4ce494b56_img.jpg\) Build Resume](#)
- [!\[\]\(f7c0cbc0c10c5dafbef174102f9f5732_img.jpg\) Applied Jobs](#)
- [!\[\]\(37d3d33431b6fb369a3812d5ddfa9c1d_img.jpg\) Resume](#)
- [!\[\]\(1a749a10d54d929194241571561bd337_img.jpg\) Interview Prep](#)
- [!\[\]\(db7c58f1e16603273e7ab80d389444fd_img.jpg\) Logout](#)

Profile Completeness

Improve your profile to reach 100%



Applied Jobs

Applied Job	Position	Date	Status	View Details
Facebook @Menlo Park, CA	UI/UX Designer	Apr 08, 2025	Applied	
Microsoft @Redmond, WA	Software Developer	Apr 11, 2025	Applied	
Tesla @Palo Alto, CA	Software Developer	Apr 11, 2025	Applied	

5. Interview Preparation Function

[Dashboard](#)

Profile
Build Resume
Applied Jobs
Resume
Interview Prep
Logout

Profile Completeness
Improve your profile to reach 100%!



Interview Preparation

General Qs Machine Learning Qs Deep Learning Qs Behavioral Qs Tech Qs A to Z Python Cheatsheet

General Interview Questions

1. Tell me about yourself.
2. Why do you want to work here?
3. What are your greatest strengths?
4. What are your weaknesses?
5. Why did you leave your last job?
6. Describe a challenging situation and how you handled it.

[Dashboard](#)

Profile
Build Resume
Applied Jobs
[Resume](#)
Interview Prep
Logout

Profile Completeness
Improve your profile to reach 100%!



Interview Preparation

General Qs Machine Learning Qs Deep Learning Qs Behavioral Qs Tech Qs A to Z Python Cheatsheet

Machine Learning Interview Questions

1. What are MSE and RMSE
2. Explain DBSCAN algorithm
3. What are dummy variables
4. What is anomaly detection
5. What is Bayesian inference
6. What is the P-Scored value

The applicant dashboard interview preparation section received a successful update that improves both user experience and accessibility. The newly added "Interview Prep" tab in the sidebar enables applicants to access this special section directly from the main dashboard without needing to navigate away. Applicants to this section will find categorized interview materials in a curated collection containing technical machine learning and deep learning questions, as well as behavioral questions and resume checklists. The content is presented through a clean structured HTML format to provide clear and user-friendly access. The backend logic selects and delivers

the correct content to users while ensuring uniformity across multiple environments through a flexible base URL setup.

6. Python Cheatsheet

[Dashboard](#)

Profile Completeness
Improve your profile to reach 100%!



Interview Preparation

[General Qs](#) [Machine Learning Qs](#) [Deep Learning Qs](#) [Behavioral Qs](#) [Tech Qs](#) [A to Z Python Cheatsheet](#)

A to Z Python Cheatsheet

#Contents

```
TOC = {
    '1. Collections': [List, Dictionary, Set, Tuple, Range, Enumerate, Iterator, Generator],
    '2. Types': [Type, String, Regular_Exp, Format, Numbers, Combinatorics, Datetime],
    '3. Syntax': [Args, Inline, Import, Decorator, Class, Duck_Types, Enum, Exception],
    '4. System': [Exit, Print, Input, Command_Line_Arguments, Open, Path, OS_Commands],
    '5. Data': [JSON, Pickle, CSV, SQLite, Bytes, Struct, Array, Memory_View, Deque],
    '6. Advanced': [Threading, Operator, Introspection, Metaprogramming, Eval, Coroutine],
    '7. Libraries': [Progress_Bar, Plot, Table, Curses, Logging, Scraping, Web, Profile,
                    NumPy, Image, Audio, Games, Data]
}
```

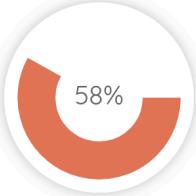
#Main

```
if __name__ == '__main__':      # Runs main() if file wasn't imported.
    main()

# Back to Top
```

[Dashboard](#)

Profile Completeness
Improve your profile to reach 100%!



Interview Preparation

[General Qs](#) [Machine Learning Qs](#) [Deep Learning Qs](#) [Behavioral Qs](#) [Tech Qs](#) [A to Z Python Cheatsheet](#)

#Logging

```
# $ pip3 install loguru
from loguru import logger

logger.add('debug.log', colorize=True) # Connects a log file.
logger.add('error.log', level='ERROR') # Another file for errors or higher.
logger.add(lambda message: f'[A logging message.] {message}') # Logs to file/s and prints to stderr.

• Levels: 'debug', 'info', 'success', 'warning', 'error', 'critical'.
```

Exceptions

Exception description, stack trace and values of variables are appended automatically.

```
try:
    ...
except <exception>:
    logger.exception('An error happened.')
```

Rotation

Argument that sets a condition when a new log file is created.

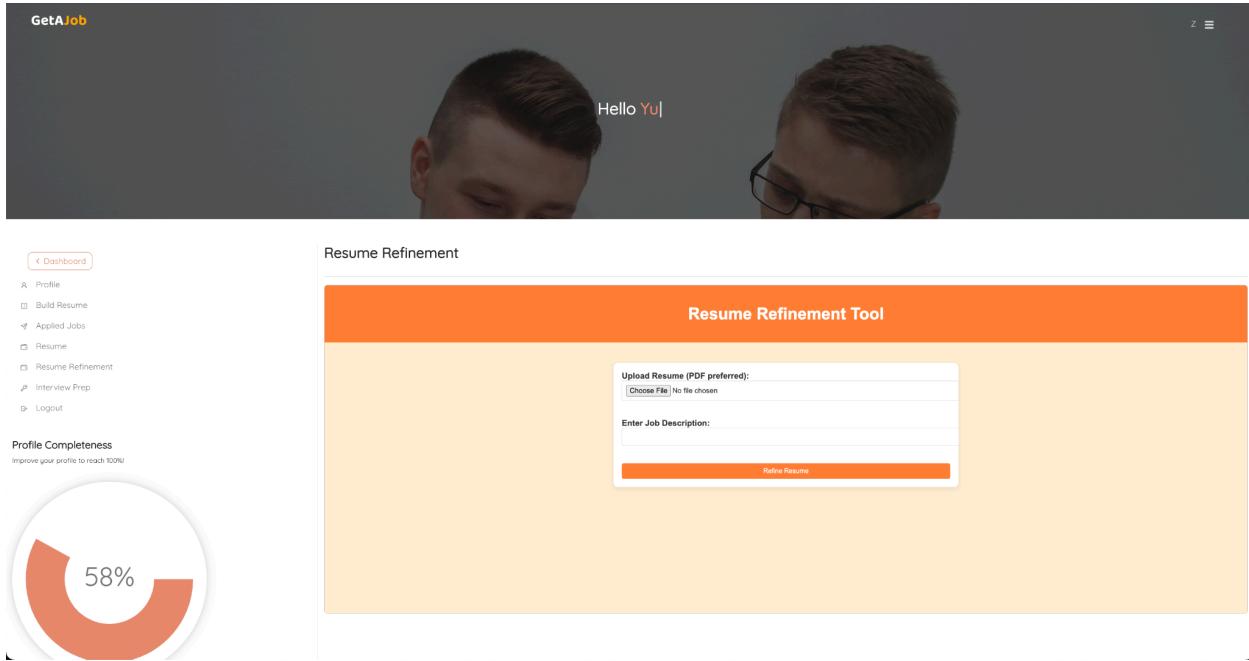
```
rotation=<int>|<datetime.timedelta>|<datetime.time>|<str>
• '<int>' - Max file size in bytes.
```

[Back to Top](#)

Applicants now have access to the Python Cheat Sheet tab in the Interview Prep section, which provides a comprehensive and user-friendly guide to essential Python concepts commonly tested in data science and technical interviews. The cheat sheet features a clean, scrollable HTML layout that covers key topics, including data types, loops, functions, and popular libraries such as NumPy and Pandas. The new "Back to Top" feature has been implemented to improve usability.

It appears in the lower screen corner when users scroll through content, allowing them to navigate to the top of the page smoothly without interrupting their reading experience. This integration simplifies interview preparation while delivering an efficient user experience for accessing essential materials.

7. Resume Refinement Function



This screen serves as the entry point to our Resume Refinement System. It prompts users to upload their resumes, initiating the process of analyzing and optimizing them. The interface is designed to be intuitive, encouraging job seekers to take the first step towards improving their resumes to better align with modern hiring practices and applicant tracking systems (ATS).

The screenshot shows the GetAJob platform's interface. At the top left is the logo "GetAJob". On the right side of the header are three small icons: a person, a gear, and a bar chart. Below the header is a dark banner featuring two men looking at a screen. The main content area has a white background. On the left, there's a sidebar with a "Dashboard" button (which is orange and outlined) and a list of navigation items: Profile, Build Resume, Applied Jobs, Resume, Resume Refinement, Interview Prep, and Logout. Below this is a "Profile Completeness" section with a message "Improve your profile to reach 100%" and a circular progress bar showing 58%.

Resume Refinement

Resume Refinement Tool

Upload Resume (PDF preferred):
Choose File | FeichenYu_Resume_24Nov.pdf

Enter Job Description:
AI Solutions Consultant (Full-Time) - Generative AI Start-up About Bitzy Bitzy is a venture-backed, rap

Refine Resume

In this example, a user has uploaded a sample resume and a job description from LinkedIn. The system uses both inputs to assess how well the resume matches the job requirements. By comparing the resume content with the job listing, the tool can highlight gaps, suggest improvements, and calculate a keyword match score, helping applicants tailor their resumes more effectively.

The screenshot shows the GetAJob platform's interface, similar to the previous one but with different content. At the top left is the logo "GetAJob". On the right side of the header are three small icons: a person, a gear, and a bar chart. Below the header is a dark banner featuring two men looking at a screen. The main content area has a white background. On the left, there's a sidebar with a "Dashboard" button (which is orange and outlined) and a list of navigation items: Profile, Build Resume, Applied Jobs, Resume, Resume Refinement, Interview Prep, and Logout. Below this is a "Profile Completeness" section with a message "Improve your profile to reach 100%" and a circular progress bar showing 58%.

Resume Refinement

Resume Refinement Results

Match Score: 44.36%

ATS Score: 90.0%

File Format: True

Grammar Errors:
0 errors found.

Final Resume Score: 80.31%

The final screen showcases the result of the resume analysis. The resume scored 100% based on our current evaluation criteria, which include the presence of contact information, clear section headers, and bullet points. Additionally, the system provides a keyword match score that reflects the alignment between the resume and the job description. We are actively working on enhancing the system by adding more evaluation metrics and implementing grammar checks using Java to improve the accuracy and quality of the analysis.

8. MongoDB Database Structure

This sprint focused on improving the backend structure of our system by organizing how data is stored and connected in MongoDB. Although MongoDB is a NoSQL database, we used a reference-based design to create relationships between key collections. This makes the system more flexible and ensures data consistency.

Job postings are saved in the **Jobs** collection. Each job document includes details such as role, description, required skills, category, and a **companyID**. This **companyID** links the job to a document in the **Company** collection. The **Company** collection stores information like company name, location, contact email, and logo. This way, each job listing can display related company details.

User profiles are stored in the **Applicants** collection. Each applicant has a unique ID and can add resume information such as education, skills, and projects.

To track job applications, we created a separate **Application** collection. Each record in this collection includes a **jobID** and an **applicantID**, connecting the user to the job they applied for. It also stores the application date and status. The use of **jobID** enables the system to retrieve the full job details when displaying the user's application history on the Applied Jobs page.

This setup helps the frontend and backend work together in real time. Even though MongoDB doesn't use fixed table structures like traditional databases, our design keeps the data clear and easy to manage.

jobportal.Applicant

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 1.78KB TOTAL DOCUMENTS: 2 INDEXES TOTAL SIZE: 108KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Generate queries from natural language in Compass

INSERT DOCUMENT

Type a query: { field: 'value' }

Reset Apply Options

QUERY RESULTS: 1-2 OF 2

```
_id: ObjectId('67e0b28f9a4734b97142eb8b')
resume: Object
dob: 2025-03-24T00:00:00.000+00:00
categories: Array (1)
applied: Array (3)
username: "wq"
name: "Wanqing Chen"
email: "wq@wu.edu"
password: "$2a$10$ofJ2IzMbwRNwCKqa0dkTu0aY2LSfjK0SBWZacUtTvpDb8BEcCJMZW"
phoneno: ""
gender: "Male"
qualification: "Graduate"
experience: "Less than 1 Year"
currentJob: ""
currentSalary: ""
currentCompany: ""
about: ""
image: "https://cdn2.vectorstock.com/i/thumb-large/23/81/default-avatar-profile-image-vector-10000081.jpg"
address: Object
socialMedia: Object
Applicant_ID: 1
__v: 0
```

jobportal.Application

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 279B TOTAL DOCUMENTS: 3 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Generate queries from natural language in Compass

INSERT DOCUMENT

Type a query: { field: 'value' }

Reset Apply Options

QUERY RESULTS: 1-3 OF 3

```
_id: ObjectId('67f70a29723ad40d0f6440f6')
DoA: 2025-04-09T04:00:00.000+00:00
aStatus: 0
JobID: ObjectId('67f6fb49360b8f43f3f398ab')
ApplicantID: 1
__v: 0

_id: ObjectId('67fadf29cb64e43bdfd881c8')
DoA: 2025-04-12T04:00:00.000+00:00
aStatus: 0
JobID: ObjectId('67f6fb49360b8f43f3f398b1')
ApplicantID: 1
__v: 0

_id: ObjectId('67fae07dcbb64e43bdfd8c03d')
DoA: 2025-04-12T04:00:00.000+00:00
aStatus: 0
JobID: ObjectId('67f6fb49360b8f43f3f398b3')
ApplicantID: 1
__v: 0
```

jobportal.Company

STORAGE SIZE: 36KB LOGICAL DATA SIZE: 3KB TOTAL DOCUMENTS: 10 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Generate queries from natural language in Compass **INSERT DOCUMENT**

Filter Type a query: { field: 'value' } **Reset Apply Options ▾**

QUERY RESULTS: 1-10 OF 10

```
_id: ObjectId('67f6eda9b4d88c7a1b5b4399')
Company_Id: 1
Company_Name: "Google"
Domain: "google.com"
About_Us: "We organize the world's information."
Location: "Mountain View, CA"
Contact: "123456789"
Email_Id: "hr@google.com"
__v: 9
logo: "https://upload.wikimedia.org/wikipedia/commons/2/2f/Google_2015_logo.s..."
```



```
_id: ObjectId('67f6fb2b360b8f43f3f398a3')
Company_Id: 5
Company_Name: "Microsoft"
Domain: "microsoft.com"
About_Us: "Empower every person and organization on the planet."
Location: "Redmond, WA"
Contact: "123456789"
Email_Id: "hr@microsoft.com"
logo: "https://upload.wikimedia.org/wikipedia/commons/9/96/Microsoft_logo_%28..."
```

jobportal.jobs

STORAGE SIZE: 44KB LOGICAL DATA SIZE: 29.43KB TOTAL DOCUMENTS: 5 INDEXES TOTAL SIZE: 36KB

Find Indexes Schema Anti-Patterns Aggregation Search Indexes

Generate queries from natural language in Compass **INSERT DOCUMENT**

Filter Type a query: { field: 'value' } **Reset Apply Options ▾**

QUERY RESULTS: 1-20 OF MANY

```
_id: ObjectId('67f474a109a61456a7ceb107')
jobDescription: Object
category: Array (2)
currApplications: 0
active: true
image: "https://upload.wikimedia.org/wikipedia/commons/2/2f/Google_2015_logo.s..."
role: "Test Developer"
companyID: 1
maxApplications: 5
positions: 2
posting: 2025-04-08T00:58:09.558+00:00
deadline: 2025-12-31T23:59:59.000+00:00
duration: 6
salary: 8000
name: "Test Inc."
email: "hr@tesinc.com"
location: "Remote"
jobType: 1
__v: 0
```

PREVIOUS **1-20 of many results** **NEXT ▾**

Marketing plans

The “Get a Job!” platform is designed to streamline the job search process by offering job seekers intelligent tools that refine resumes based on ATS (Applicant Tracking System) criteria and suggest interview questions tailored to specific applications. With the frontend, resume scoring module, and interview preparation feature now completed, the project has progressed into the critical phases of marketing implementation and usability validation. This report

provides a comprehensive overview of the strategies developed and actions undertaken in these two domains, along with an outline of ongoing and future initiatives.

The marketing strategy for Get a Job! has been developed to establish a strong presence among students, recent graduates, and early-career professionals. These individuals often face challenges in navigating the modern job market, particularly in crafting resumes that are compatible with digital recruitment filters and preparing for competitive interviews. Recognizing this, the platform has been positioned not as a conventional job board but as a pre-application enhancement tool—one that boosts a candidate's likelihood of success before they even hit “apply.” The marketing campaign emphasizes accessibility, intelligence, and empowerment.

Initial marketing efforts have focused on defining and understanding the user base, shaping outreach campaigns around the needs and expectations of this demographic. Core messaging centers on providing real, actionable value—helping users not just find jobs but become truly prepared for them. Social media has been identified as a primary channel for awareness, with content tailored for platforms like Instagram, LinkedIn, and TikTok. These platforms will host tutorials, user walkthroughs, and short, engaging content that demystifies resume optimization and interview readiness. In parallel, outreach to university career centers and student societies has begun, laying the groundwork for partnerships and ambassador programs that will drive peer-to-peer promotion within academic communities. A supporting content strategy is also in development, focusing on blog posts, user success stories, and informative articles that improve organic search visibility and educate the market.

Complementing these marketing efforts is the creation of a referral-based pre-release landing page designed to capture early adopters and collect waitlist registrations. By offering early access, feature previews, and shareable invitations, this approach is expected to generate initial traction while providing a controlled environment for collecting early feedback.

1. Usability testing

On the usability front, the project has adopted a user-centered testing philosophy to ensure that the platform is intuitive and seamless for its intended audience. Given that many of our users may be unfamiliar with technical job search tools, it is critical that each interaction—whether uploading a resume, reading an ATS score, or exploring interview questions—feels natural, helpful, and informative. Internal testing has validated key functional components, confirming that file uploads, score generation, and user navigation behave as intended across different browsers and screen sizes.

The usability testing process has now expanded to include a controlled group of beta users. These individuals were invited to explore the platform and complete core tasks while offering

real-time feedback on their experience. Observations from this cohort highlighted several important insights. Users appreciated the clarity of the resume score and the relevance of the interview questions provided. However, some expressed a desire for more visual guidance—such as tooltips or color-coded indicators—to help them interpret feedback and make changes more confidently. Navigation proved mostly smooth, although a few users encountered alignment issues on mobile displays, which are now being addressed through front-end adjustments.

To track user feedback and technical issues efficiently, all observations and reported bugs are being logged and prioritized using collaborative project management tools. Automated testing scripts are being integrated into the backend to continuously monitor mission-critical workflows such as account creation, resume analysis, and form submissions. These enhancements will support both stability and scalability as the platform moves toward full public release.

As the project continues, the immediate focus will be on expanding the beta testing group, iterating on user feedback, and implementing a multi-week social media campaign. In tandem, outreach to university partners will be scaled up, and performance analytics will be embedded to track key engagement and conversion metrics. Together, these efforts ensure that *Get a Job!* is not only technically robust and user-friendly but also effectively positioned to enter and succeed in the competitive job-prep space.

Both the marketing strategy and usability efforts reflect a deep alignment with the platform's core mission: to empower job seekers through intelligent tools, clean design, and personalized feedback. With foundational development complete and real users engaging with the product, *Get a Job!* is well positioned to make a measurable impact, delivering value to individuals as they navigate one of life's most important transitions—getting hired.

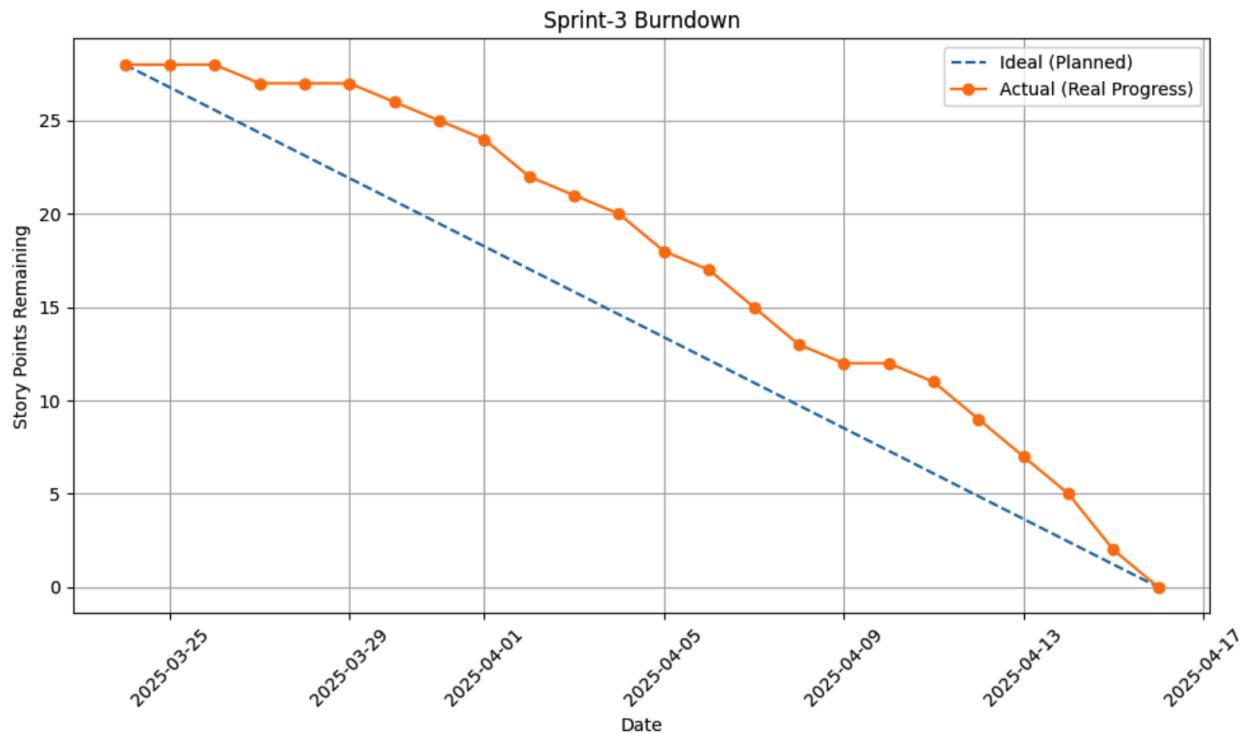
2. Sprint 3

Sprint backlog

Sprint 3		
PB	Task	Story Points
P-12	Job-listing grid & filter sidebar	3
P-12	Search sort & pagination API	2
P-13	Interview-prep layout overhaul	3
P-13	Load cheat-sheets & guides	3
P-13	Add back-to-top / TOC nav	2
P-14	Resume format-tip component	2
P-14	Generate resume checklist PDF	1
P-14	Resume preview & export	2
P-15	Employer dashboard sidebar & routing	2
P-15	Job-posting management stub	2
P-15	Applicant-tracking table placeholder	2
P-16	Cypress integration tests	2
P-16	Moderated usability tests & iterate	2
—	Demo prep	0

Key sprint backlog items included organizing the interview prep tab, improving resume checklist formatting, building filtering logic for job searches, and creating employer dashboard navigation. The team also conducted usability testing and made iterative UI changes based on user feedback. These tasks amounted to 28 story points, distributed across both the applicant and recruiter features.

Burndown chart



Sprint 3's burndown chart revealed a slightly slow start, but a noticeable catch-up in the second week. By the midpoint, the actual line dropped significantly below the ideal trajectory, indicating a strong development pace. This faster-than-planned execution continued through to the end of the sprint, with all tasks completed ahead of schedule. The result showcased improved team velocity and sprint estimation accuracy.

Future Improvements

As the current platform reaches a stable release, there are several high-impact improvements that can be implemented in future development cycles to enhance functionality, user experience, and system scalability. One of the most valuable additions would be the integration of **interview scheduling and offer management tools** for recruiters. This would allow employers to coordinate candidate interviews and manage the job offer process directly within the platform, eliminating reliance on third-party scheduling tools.

To improve the relevance of job search results, the platform could incorporate **smart job matching algorithms**. These algorithms would analyze user profiles, application behavior, and job metadata to suggest the most suitable positions, increasing the likelihood of successful

matches. Additionally, implementing **real-time notifications**—for application status changes, interview updates, or new job postings—would keep users more engaged and informed.

Another critical improvement would be the development of a **mobile-friendly version** of the platform. With more users accessing job platforms on mobile devices, ensuring responsive design or launching a mobile app would greatly enhance accessibility and usability. Lastly, as the user base grows, it will be essential to **optimize system performance and scalability**. This includes refining backend architecture, improving load times, and ensuring consistent uptime under high traffic. These future enhancements position the platform for long-term success and enterprise-level adoption, while continuing to prioritize user-centered design and efficiency.

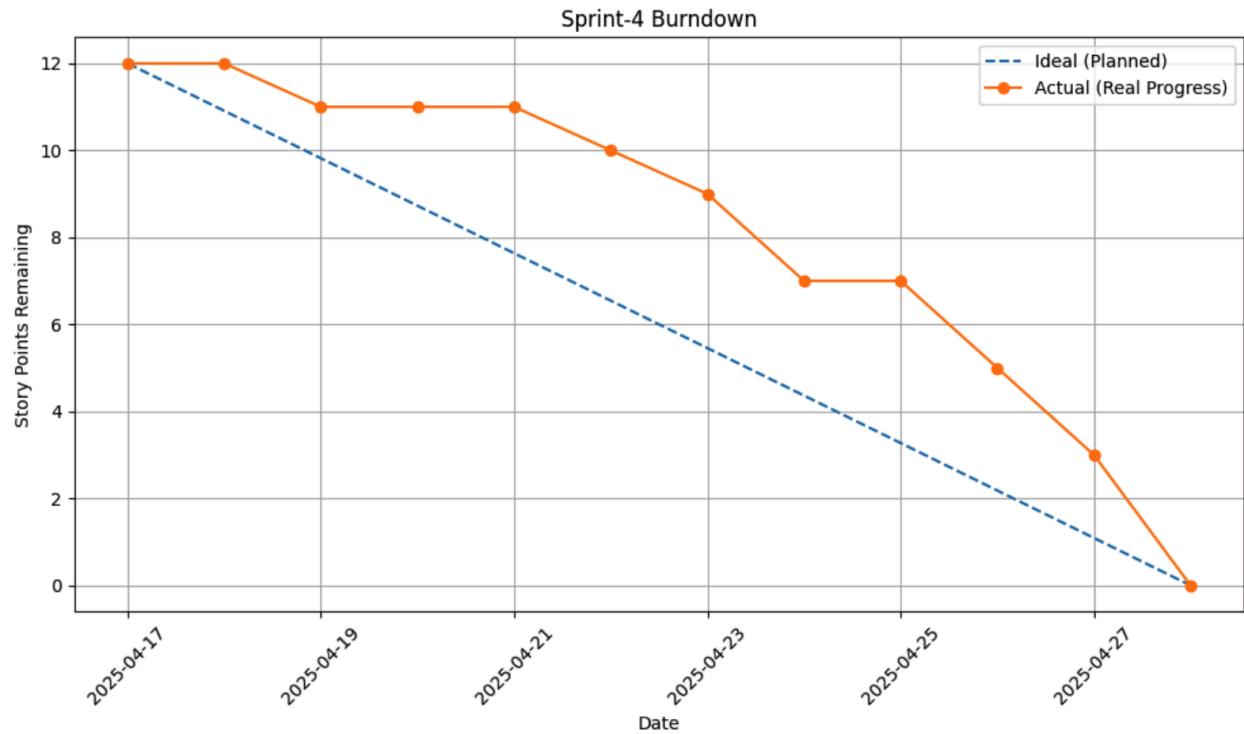
Sprint 4

Sprint Backlog

Sprint 4		
PB	Task	Story Points
P-17	Regression test pass	2
P-17	Fix critical bugs	2
P-17	Fix minor bugs	1
P-18	Build CI/CD pipeline	2
P-18	Create Docker / IaC	1
P-19	Draft final report	1
P-19	Prepare slide-deck	1
P-20	Hold post-mortem	1
P-20	Document action items	1
—	Sprint-4 burndown script	0.5
—	Reviews	0.5

The sprint backlog was lean but focused, with 12 story points covering QA test pass execution, resolving high-priority bugs, finalizing deployment scripts, and delivering polished documentation. Time was also allocated for presentation preparation and dry runs to ensure a smooth delivery to stakeholders.

Burndown Chart



GitHub Code Link

<https://github.com/FeichenYu2001/6210Capstone>