

## Student Recruitment Management System



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### REASON FOR THE PROJECT

Describe why the project is needed, problems with the current situation, and why a change to the status quo is required. List the features, technology, equipment, benefits, and competitive advantages of this project.

#### Why is the project needed:

This project aims to streamline the current student recruitment process, which is often disjointed and time-consuming, especially for international students who need visa sponsorships. The new system will bring everything together in one place, consolidating information about students, companies, job opportunities, and recruitment events. By centralizing this data, the matching process will become more efficient, saving both students and companies valuable time and effort.

#### Key Features:

Key features will include detailed job listings, company profiles, application tracking and an event tracking system, all designed to make the recruitment process smoother and more effective, while giving both students and employers a competitive edge in making the best connections.

#### The Problem with the Current System:

Right now, student recruitment is all over the place. Universities, companies, and students rely on multiple disconnected platforms, leading to:

- **Wasted Time:** Students struggle to find relevant jobs, and recruiters sort through mismatched applications.
- **Limited Information:** Companies often provide vague job descriptions, and students lack insight into company culture.
- **Missed Opportunities:** Students, especially international ones, miss job openings due to unclear visa sponsorship details on job descriptions.
- **Inefficient Matching:** There's no structured way to match student qualifications with employer needs, leading to mismatched hiring.

#### Technology :

- DBMS: MS SQL
- IDE: Visual Studio

- CI/CD: Jenkins
- Project Management: JIRA, MS Teams
- Cloud Services: AWS, Azure

#### **Equipments:**

- Servers
- Workstations
- Networking equipment like routers, switches and firewall.

### **OPTIONS**

Describe briefly the different options for completing the solution. Identify the ideal option and why this option was chosen over the others.

#### **Option 1: Enhancing Existing Job Platforms**

One idea was to work with existing job platforms (like LinkedIn) and enhance them to better serve students and recruiters during Career Fairs conducted in university. While this option would leverage existing infrastructure, it had major limitations:

Limited Customization - These platforms are designed for broad audiences, not specifically for students.

No University Integration - They don't seamlessly connect with student databases or university career services.

Lack of Visa Sponsorship Filters - International students would still struggle to find suitable job opportunities.

#### **Option 2: Outsource Recruitment to Third-Party Services**

Another approach was to partner with external recruitment agencies that specialize in student hiring. While this could improve job placement rates, it wasn't the right fit because:

High Costs - Outsourcing requires ongoing payments, making it expensive for students and universities.

Less Control - We wouldn't have control over data, customization, or the student experience.

Not Scalable - The process would depend on third parties, limiting flexibility for universities and students.

#### **Option 3: Build a Custom Student Recruitment System**

The best option was to develop our own specialized Student Recruitment Management System designed specifically for university students and recruiters. This option stood out because:

Designed for Students & Recruiters - Custom-built to match students with the right jobs efficiently.

University Integration - Connects with student databases to provide accurate job recommendations.

Visa Sponsorship Filtering - A game-changer for international students seeking the right opportunities.

Complete Control & Customization - Universities and career services can tailor it to their needs.

Long-Term Cost Savings - Unlike outsourcing, this is a one-time investment with long-term benefits.

### **Why We Chose to Build Our Own System**

At the end of the day, we wanted a smart, student-friendly, and recruiter-efficient platform that existing solutions just couldn't provide. After struggling at the career fair that happened at the University, it was difficult for most of the students to figure out what companies were coming, and which were the job profiles they were providing at the career fair. Students wasted time standing in long queues and then realized that this was not actually what they were looking for. So, to help all students we have come up with this proposal. By developing our own system, we ensure:

- Faster, smarter, and more personalized job matching.

- A better experience for both students and recruiters.
- A competitive edge for universities in job placement success.

This is more than just a job board- it's a future-proof solution that makes hiring easier, faster, and more effective for everyone involved. That's why we chose to build it from scratch.

## BENEFITS

Describe anticipated improvements from the project. How can this project help the organization?

Our solution is simple: a smart, centralized, and efficient recruitment system that benefits both students and recruiters.

- **One-Stop Job Hub:** All job listings, recruitment events, and company details in one place.
- **Smart Filters:** Students can search based on skills, job type, degree, and visa sponsorship.
- **Enhanced Opportunities for International Students -** Visa sponsorship is a major challenge for international students. This system includes specific filters for visa sponsorship availability, helping international students quickly identify companies that support them.
- **Company Insights:** Students can explore job roles, work culture, and hiring needs before applying. Students gain a clearer understanding of potential employers before applying, leading to better decision-making.
- **Better Matches:** Companies get pre-filtered candidates based on job requirements. Students can filter job opportunities based on their degree, skills, job type (internship/full-time), and visa sponsorship needs. This ensures they only see relevant jobs, reducing the frustration of applying for mismatched positions.
- **Application Tracking:** No more wondering about job application status- students get real-time updates.
- **Stronger University-Employer Connections:** Universities can integrate the system with their career services, ensuring students are aware of recruitment events, job fairs, and career opportunities tailored to their institution.

## SCOPE

Outline the scope of the project (i.e., what is in-scope and what is out-of-scope).

### In-scope:

- **Company Profiles & Job Listing:** A comprehensive database of employers, their culture, sponsorship policies, and available roles.
- **Recruitment Event Tracking:** A platform to list and manage career fairs, networking sessions, and employer info sessions.
- **Visa Sponsorship Information:** Clear, up-to-date details on which companies offer visa sponsorship for international students.
- **Mobile & Web Accessibility:** A responsive platform accessible across different devices for ease of use.

### Out-of-scope:

- **Direct Hiring or Recruitment Decisions:** The platform facilitates connections but does not make hiring decisions.
- **Legal Visa Processing:** While the platform provides sponsorship details, it does not handle actual visa applications or legal processes.
- **Third-Party Job Board Integration:** Jobs will be posted directly by companies; external job board aggregation is not included.
- **Custom Resume & Cover Letter Services:** The platform does not provide personalized resume writing or career coaching services.

## RESOURCE NEEDS

Detail the resources needed for the project. Identify whether the resources are internal or external (i.e., consultants). Identify whether specialized knowledge or skills are required.

For this system project, the resources required include a project management team to oversee the process, along with software developers (front-end, back-end, testing) to build and integrate the platform. Database administrators will ensure efficient data management. Security specialists to keep the platform safe and working smoothly.

## RISKS

Describe the risks to the project, such as extra costs and more work than anticipated.

### **Ethical Risks:**

Fake Student Profile: Agencies or applicants submitting fraud information.

Data Misuse: Selling or sharing student data without proper consent.

### **Technological Risks:**

Data Loss: System crashes or failures leading to permanent data deletion

System Downtime: Technical failures affecting accessibility and usability.

Data Entry Errors: Manual errors leading to incorrect applicant information.

## COSTS

How much will the project cost? Include contingency costs to cover overruns for risk events. Include ongoing maintenance and operational costs for the project. **[Projections acceptable.]**

- Software Licenses Renewal: \$2,936 (Visual Studio, JIRA, MS Teams)
- Cloud Services: \$10,000
- Support and Maintenance: \$8,000 (Technical support and software updates)
- Hardware Maintenance: \$3,000 (Workstations and networking equipment)
- Training and Development: \$2,000
- Contingency and Miscellaneous: \$10,000
- Personnel Costs: \$220,000
- Total Project Cost: \$255,936 (One-time Cost)

Subsequent Years (Operational and Maintenance): \$61,936

## SCHEDULE

Indicate how long the project will take, milestones, and how long before the benefits become apparent. Also, note if the time buffer is included in this estimate. **[Projections acceptable.]**

### Project Kickoff

- **Month 1:** Formal initiation of the project, team introductions, finalizing project plan.

### System Design and Architecture

- **Month 2:** Designing system architecture and user interface.

### Development Phase 1

- **Month 3-5:** Development of core functionalities including database setup, basic user interface, and essential features.

### Testing and Feedback Phase 1

- **Month 6:** Initial testing including unit tests, integration tests, and gathering initial feedback.

### Development Phase 2

- **Month 7-8:** Development of advanced features, integration of feedback, enhancements based on initial tests.

### Testing and Feedback Phase 2

- **Month 9:** Comprehensive testing including stress tests, security audits, and performance tuning.

### Pre-Launch Preparation

- **Month 10:** Final preparations for going live, training sessions for users, creation of support materials.

### System Launch

- **Month 11:** Official launch of the system, transition to operational status.

### Buffer Time: Month 12

## EXECUTIVE SUMMARY

Provide an executive-level summary of why the project should be pursued.

### Centralized Platform

The system consolidates job listings, applications, and event tracking into a single, easy-to-use platform, improving efficiency for students, recruiters, and universities.

### Better Job Matching for Students

Smart filters help students find relevant job opportunities based on their degree, skills, job type, and visa sponsorship needs, reducing wasted time and frustration.

### Enhanced Employer Efficiency

Recruiters benefit from structured student profiles, allowing them to find qualified candidates faster and with more accuracy, saving time and resources.

### Clear Company Insights

Employers can provide detailed job descriptions and insights into their company culture, helping students make more informed decisions about where to apply.

### Support for International Students

The system includes filters for visa sponsorship availability, making it easier for international students to identify suitable employers.

### Stronger University-Employer Connections

Universities can integrate career services, providing students with access to recruitment events, job fairs, and tailored career opportunities.

### Cost & Time Savings

The system streamlines the recruitment process, reducing reliance on third-party platforms and manual tracking, offering long-term savings for all stakeholders.

### PROJECT ORGANIZATION

List the project team members and their role.

- **Project Manager:** Vaishnavi
- **Lead Developer:** Sheneal
- **Database Administrator:** Rucha
- **Security Lead:** Radhika