

UB JOB PORTAL

Report #1



CMPS4131 - Software Engineering

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CUSTOMER STATEMENT OF REQUIREMENTS

Problem Statement

Finding a job is hard. The problems students face

In Belize, it is common knowledge that finding a job after university, given your experience, is quite hard. To find a job, students must scour social media, newspapers, and company websites to find a vacancy in an organization. In addition, some students rely on asking friends, family, and others to learn about available jobs. This old way of finding a job is time-consuming and unproductive. Given the right tool, the time it takes to find a job vacancy can be used to apply for appropriate jobs. Other popular sites like Indeed or LinkedIn are great for individuals to post their resumes and more information about themselves. Also, these applications have integrated features to allow individuals to learn more about posted job vacancies easily. Unfortunately, many organizations in Belize still rely on older methods to get out their job applications and hire new candidates. Henceforth, a more modern but “Belizean” solution must be implemented to encourage organizations to use these new technologies further to enhance their search for the right student candidates. Furthermore, it helps students find jobs that best suit them.



Keeping track of applications (student perspective)

There is no guarantee of success in one job application in the current job market. Therefore, it is in their best interest that a student applies for as many jobs as possible. Remembering and revisiting the numerous applications and tracking their status can be unmanageable. Such tracking can be done using Excel spreadsheets. The drawback comes with the limiting factor of

manually updating new rows of information, which could get numerous and frustrating. An integrated tool can make this feature seamless and more intuitive.



Keeping track of applications (employer perspective)

Places companies post vacancies include their websites, newspapers, or social media such as Facebook. In today's market, youth unemployment is 21.81% of the workforce aged 15 - 24 in 2022 (*Belize Youth Unemployment Rate 1991-2024*, n.d.). Therefore, we can deduce that a job application on social media can have numerous applicants. Usually, these applicants would have to submit their resumes through email, as this is the norm for professional communication in Belize. The employer must then examine the resumes and CVs provided through email. A short list is created with the individuals to interview. The employer is then obliged to respond to all the other applicants about the status of their resumes. In some cases, applicants are not told the status of their application and take the initiative to reach out, requesting an update. This whole process can become efficient for both applicants and employers by using a centralized job vacancy application. In such an application, employers can manage all job vacancy posts with related applicant information shortlists and issue application updates to candidates not considered. This speeds up the process of employers finding a suitable candidate and does not leave other candidates guessing if their resume was considered.

Companies may enjoy the organization of speaking with multiple candidates for a posted job

Another advantage of a centralized system is that a company can organize conversations between numerous shortlisted candidates about a particular vacancy. This streamlines the process of communication between employers and potential candidates without the stress of email conversations. As mentioned above, candidates not considered for the job can be easily updated through an employer's click of a button, removing the time to update each candidate individually.



Companies can reach more people and different kinds of people much faster

Companies sometimes need to find a suitable candidate quickly to fill an important role. Not all companies have the reach or the following to discover the best candidates. With the advent of a new job portal application for UB students, companies can leverage this tool to get their job vacancies directly in the eyes and interests of hundreds of students. Job posts can instantly reach candidates with different fields of expertise, degrees, and experience. This, in turn, minimizes the time an employer spends searching for a candidate. This also increases the chances of finding the perfect candidate for the role. The system puts the employer and candidate in direct contact with each other. An employer can converse with potential candidates, only taking the conversation to other applications if a video call is required.

Sending and receiving documents become faster and easier

Handling numerous documents and conversations through Gmail (the most common communication method in this process) can become messy, especially when handling numerous attachments spread across multiple messages in an email thread. Henceforth, an organized way to view all sent and received documents between parties can make processes for employers more intuitive. Such a feature is incredibly useful and helpful for employers, especially in limited time.

In conclusion, an application built to address these problems can ultimately impact Belize's youth unemployment rate. It allows employers to reach university candidates faster and allows students to find and apply for multiple jobs easily.

Glossary of Terms

Term	Definition
Employer/External User	The entity that makes job vacancy posts and considers candidates for hire.
Candidate/Applicant/Internal User	A UB student who applies for posts seeking an interview for hire.
Application	Submission of one's resume or other personal details to be considered for an interview or job.
Email Thread	A group of emails in an email conversation between two Gmail users.
Administrator	The user that had admin rights to verify job listings, verifying legitimacy of vacancies and users registered.
Analytics	The website will be able to

SYSTEM REQUIREMENTS

Functional Requirements

Identifier	PW	Requirement
REQ-1	5	The system shall allow internal users to access the UB Job Portal without an account.
REQ-2	2	The system shall allow internal and external users to register an account to access the UB Job Portal
REQ-3	1	The system shall allow registered internal users to upload their personal information and resume documents.
REQ-4	2	The system shall allow registered internal users to edit their profiles, including personal information and resume documents.
REQ-5	3	The system shall allow registered external users to upload company information.
REQ-6	5	The system shall allow registered external users to create vacant job posts.
REQ-7	1	The system shall allow registered external users to edit their profiles, including company information and job posts.
REQ-8	5	The system shall allow internal users to search for job posts based on criteria such as title, location, or company.
REQ-9	2	The system shall allow internal users to filter job post results based on preferences such as full-time/part-time, internship, or remote positions.
REQ-11	1	The system shall allow registered internal users to apply for job posts by submitting their resumes and any additional required documents.
REQ-12	1	The system shall provide a feature for registered external users to access and view registered internal user information and documents.
REQ-13	2	The system shall facilitate communication between registered external and internal users, allowing for instant messaging in regard to a job post.
REQ-14	3	The system shall allow registered external users to reach out to registered internal users directly regarding job opportunities or application statuses.
REQ-15	1	The system shall verify all users who sign up for the UB Job portal.

REQ-16	3	The system shall provide reporting and analytics capabilities to track usage metrics, such as the number of job postings, applications, and user interactions.
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Non-Functional Requirements

Identifier	PW	Requirement
NONREQ-1	2	The system should be a clear, user-friendly, and understandable web app.
NONREQ-2	4	The system should use a method to move user data to the database and back to the user. The system should support integration with external services, such as job search engines or social media platforms, to extend its reach.
NONREQ-3	5	Administrators will be able to review vacancy positions and verify if it's eligible.
NONREQ-4	2	The system will be responsible for saving data from electronic forms into a database.
NONREQ-5	3	The platform should have a high level of reliability, minimizing downtime or service interruptions.
NONREQ-6	5	Data transmitted and stored should be encrypted to ensure the confidentiality and integrity of user information
NONREQ-7	2	The platform should have an intuitive and user-friendly interface for both companies and students.
NONREQ-8	5	Provide documentation and training materials for administrators, companies, and students. Offer customer support channels to address user queries and issues promptly.

On-Screen Appearance Requirements:

Identifier	PW	Requirement
ONSREQ-1	4	Design an intuitive and responsive layout that adapts to different screen sizes and resolutions. Provide clear navigation paths, ensuring users can easily find and access relevant information.
ONSREQ-2	3	Define a set of consistent icons and symbols for actions, alerts, and other visual cues to enhance user understanding.
ONSREQ-2	3	The platform's visual design should align with the school's brand guidelines, ensuring a consistent and cohesive appearance.

FURPS Table:

Functionality	<ul style="list-style-type: none"> The platform shall provide companies with the ability to showcase and upload job vacancies. Students can browse, search, and view available job opportunities. Companies and students should have the option to register, creating individual profiles.
Usability	<ul style="list-style-type: none"> With an intuitive user interface, the platform offers easy navigation and clear calls-to-action for companies and students, supported by informative feedback messages and user-friendly error handling. Accessibility standards are followed to provide an inclusive experience.
Reliability	<ul style="list-style-type: none"> Data integrity measures are in place to ensure accuracy, and regular data backups prevent potential loss, contributing to a reliable platform. High system availability is maintained through robust hosting solutions, redundancy for critical components, and security measures to protect against vulnerabilities and loss of user information.
Performance	<ul style="list-style-type: none"> The platform is optimized for low-latency response times,

	<p>undergoing regular performance testing to identify and address any bottlenecks.</p> <ul style="list-style-type: none"> Scalability measures and load balancing techniques are implemented to handle increased user traffic efficiently and maintain optimal performance.
Supportability	<ul style="list-style-type: none"> Comprehensive documentation guides administrators, companies, and students, with additional troubleshooting guides and FAQs for user support. Training sessions and ongoing support channels, such as email or chat, are provided, and a systematic approach to software updates ensures continuous improvement while minimizing disruptions.

FUNCTIONAL REQUIREMENTS SPECIFICATION

Stakeholders:

1. UB Students (Internal Users)

- Easily access the UB Job Portal.
- Share personal info for job applications.
- Search for jobs that match their skills.
- Communicate smoothly with potential employers.

2. Employers/Companies (External Users)

- Post job openings on the UB Job Portal.
- Check out student profiles.
- Communicate with students about job opportunities.
- Manage and review job applications.

3. Administrators

- Verify and manage user registrations.
- Ensure posted jobs meet eligibility criteria.
- Provide support to both students and employers.

Actors and Goals

Actor	Roles	Type	Goals

Use cases

Name	Description	Requirement Covered
UC 1 - StudentRegistration	<ul style="list-style-type: none">• To allow the system to capture all fields entered when students register.	REQ-1, REQ-2 NONREQ-1, NONREQ-6, NONREQ-7,
UC 2 - StudentAuthentication	<ul style="list-style-type: none">• Confirms that ONLY students from UB are allowed to register.	REQ-2, REQ-15
UC 3 - EmployerRegistration	<ul style="list-style-type: none">• To allow the system to capture all fields entered when students register.	REQ-1, REQ-2, NONREQ-1, NONREQ-6, NONREQ-7,
UC 4 - EmployerAuthentication	<ul style="list-style-type: none">• Confirms that ONLY legitimate businesses are allowed to register.	REQ-2 REQ-15

UC 5 - FilterJob	<ul style="list-style-type: none"> To allow the system to decipher which listings are legitimate or fake. 	REQ-8, REQ-9, NONREQ-1, NONREQ-7
UC 6 - InsertInfo	<ul style="list-style-type: none"> To allow students to upload personal information & resume. 	REQ-3, NONREQ-1, NONREQ-7
UC 7 - ChangeStudentInfo	<ul style="list-style-type: none"> To allow students to edit their personal info & resume. 	REQ-4, NONREQ-1, NONREQ-7 NONREQ-2
UC 8 - UploadCompanyInfo	<ul style="list-style-type: none"> To allow employers to upload their company information for students 	REQ-5,
UC 9 - ChangeCompanyInfo	<ul style="list-style-type: none"> To allow employers to edit company info from the portal. 	REQ-7 NONREQ-1, NONREQ-7 NONREQ-2
UC 10 - CreateJob	<ul style="list-style-type: none"> To allow employers to vacant job posts for students. 	REQ-6
UC 11 - SearchJobListing	<ul style="list-style-type: none"> To allow students to search through different job listings available. 	REQ-8 REQ-9
UC 12 - ApplyJob	<ul style="list-style-type: none"> To allow students to apply for jobs by submitting their resume. 	REQ-11
UC 13 - Message	<ul style="list-style-type: none"> To allow both students and employers to communicate with each other via instant messaging. 	REQ-13 REQ-14
UC 14 - ViewDocuments	<ul style="list-style-type: none"> To allow employers to view resumes. 	REQ-12
UC 15 - ViewPersonallInfo	<ul style="list-style-type: none"> To allow employers to view students' personal information uploaded. 	REQ-12
UC 16 - Verify	<ul style="list-style-type: none"> To allow the system to verify both students and employers identities. 	REQ-15

UC 17 - AnalyzeStatistics	<ul style="list-style-type: none"> To allow the administrator to view, provide reporting & analytics of usage statistics. 	REQ-16 NONREQ-6
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1. Student Registration and Profile Creation

- Description: Students sign up on the UB Job Portal and create profiles by sharing details about themselves, education, and skills.
- Actors: UB Student, System

2. Job Vacancy Posting by Employers

- Description: Employers upload job openings to the UB Job Portal, providing details like job descriptions, qualifications, and deadlines.
- Actors: Employer, System

3. Job Search and Application by Students

- Description: Students look for jobs, view details, and submit applications based on their preferences and qualifications.
- Actors: UB Student, System

4. Communication between Employers and Students

- Description: Employers and students chat through the platform regarding job applications, interview schedules, and application status.
- Actors: UB Student, Employer, System

5. Job Application Tracking by Students

- Description: Students track their job applications, receive updates, and efficiently manage multiple applications.
- Actors: UB Student, System

6. Job Application Review and Shortlisting by Employers

- Description: Employers review applications, shortlist candidates, and manage the recruitment process within the platform.
- Actors: Employer, System

Casual Description

1. Student Registration and Profile Creation:

- Students start the sign-up process, sharing necessary info.
- The system checks the details and creates a user profile.
- Students can add more details about their education and skills.

2. Job Vacancy Posting by Employers:

- Employers log in and post job openings with comprehensive details.
- The system checks the info and makes the job visible to students.

3. Job Search and Application by Students:

- Students look for jobs based on filters like industry and location.
- Once they find a good match, they apply through the platform.

4. Communication between Employers and Students:

- Employers and students chat on the platform about job details and applications.
- This includes discussing interview schedules and application updates.

5. Job Application Tracking by Students:

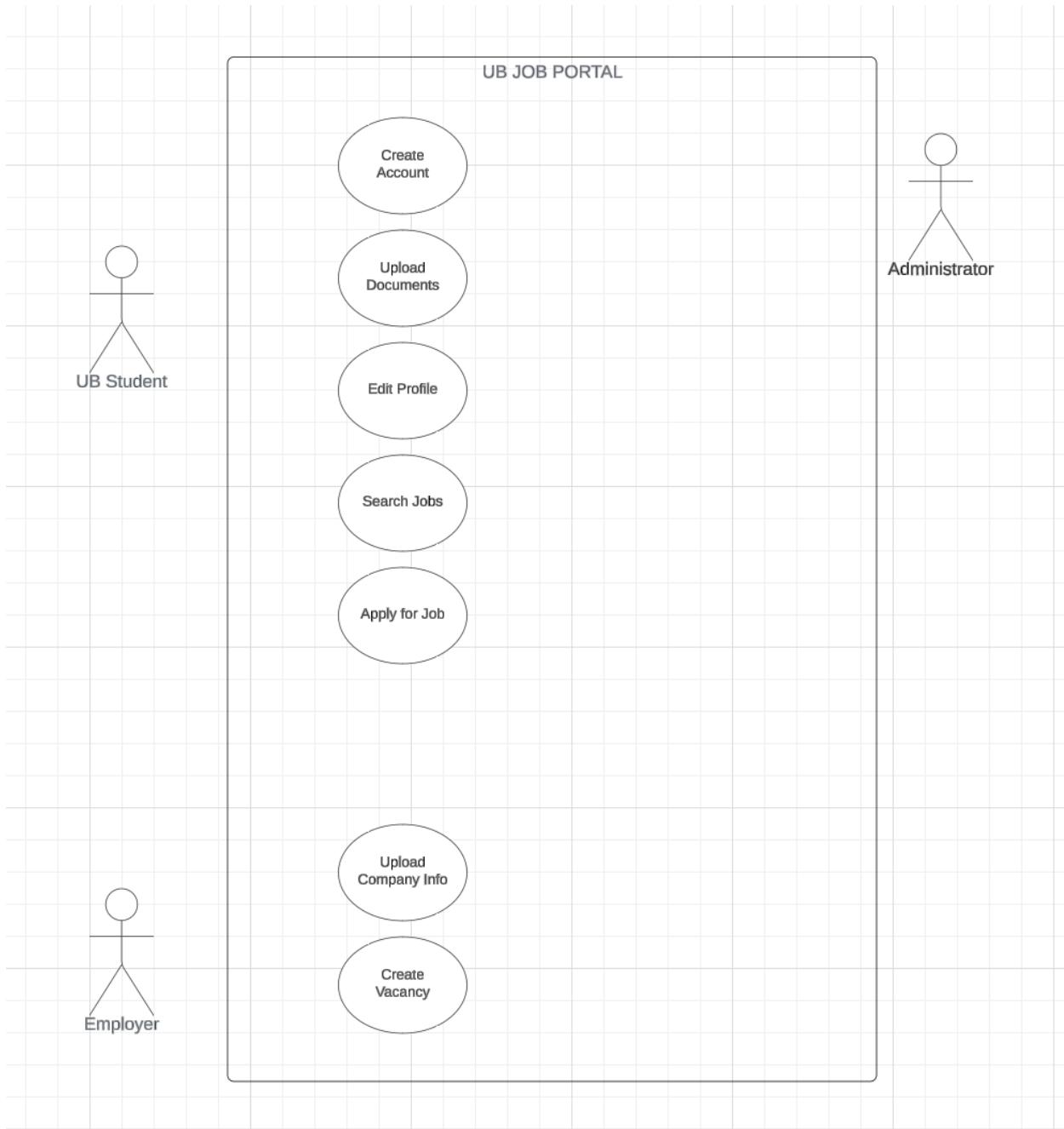
- Students keep tabs on their applications, get notifications, and manage them efficiently.

6. Job Application Review and Shortlisting by Employers:

- Employers review applications, shortlist candidates, and communicate with selected individuals.
- The platform helps organize the recruitment process.

Use Case Diagram

- Still not done just testing, but here is the start of the diagram



Traceability Matrix

Fully-Dressed Description

References

Belize Youth unemployment rate 1991-2024. (n.d.). MacroTrends.

<https://www.macrotrends.net/countries/BLZ/belize/youth-unemployment-rate#:~:text=Belize%20youth%20unemployment%20rate%20for,a%201.26%25%20decline%20from%202020>.