The Open University of Sri Lanka
Faculty of Engineering Technology
Department of Electrical & Computer Engineering
Bachelor of Software Engineering Program – Level 4

EEY4189 Software Design in Group
JobPortalLK

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Introduction

We are developing a Job portal which connects Job seekers and Employers in one place. There are several already existing Job portals in Sri Lanka. But, in each portal, they mostly specify one category-related job. In our portal, we want to include all categories of jobs.

In our platform, users can find jobs without signing up or registering. If sign up to our platform they can save jobs and find the resume builder guide.

Our project is all about helping people navigate their career paths with confidence and connecting employers with the talent they need.

Background

We decided to work on this project because we've seen firsthand how frustrating it can be to search for jobs online. The existing platforms often feel outdated and clunky, making it hard to find relevant opportunities. We wanted to change that by building a modern, user-friendly app that addresses the needs of both job seekers and employers.

Benefits of our Platform

1. **Centralized Job Portal:** In our platform users can find job opportunities across various sectors in Sri Lanka.

2. **Use without Authentication:** Users can search and find job opportunities without registering to our portal. This will make the job-seeking process easy for our users.

3. **Search and Filter Jobs:** Users can search and filter jobs easily

4. **Trustability of Jobs:** We have a scam tracking mechanism to find out any fraudulent job entries. This will make our platform trustable.

5. **Cost-effective Recruitment**: Employers can find employees without any costs while using our platform.

Problem Statement

In Sri Lanka, after the COVID-19 pandemic and Economic Crisis large amount of people lost their jobs. So in Sri Lanka, unemployment is one of the major issues that need to be addressed soon to restore the country from downfall. So finding a job opportunity in Sri Lanka is very competitive. Job seekers face a lot of challenges while finding suitable employment according to their skill set.

This affected all types of employees in Sri Lanka from IT professionals to daily laborers. During the lockdown the emergence of the remote work culture made companies invest more in virtual meeting applications. For example, Zoom, Google Meet, and Microsoft Teams but post-pandemic the demand for such applications has reduced. This also resulted in further job losses in Sri Lanka.

Currently, there are some job portals available in Sri Lanka but they are not efficient enough to get more opportunities for our people. For example, if we have a look at LinkedIn, it is heavily focused on IT and Banking professionals. So, it will be very useful if we can build a platform that provides job opportunities for all categories of workers.

Employers also face challenges while searching for employees for their companies. They need to spend huge money while running ads about their job vacancy on other platforms and social media.

Project Objectives

These project objectives will clearly define our platform's expected results

1. **Develop a centralized job portal**

    - We are aiming to have at least 50 job listings and 25 registered employers within the first three months of launch. To achieve this, we will ensure the platform is user-friendly, supports multiple job categories and industries, and includes an efficient search and filtering functionality. This addresses the need for an efficient job portal to enhance employment opportunities. We plan to complete development and launch the platform within the next six months.

2. **Make the job portal trustable using scam detecting mechanism**
    - We are aiming to achieve a 90% reduction in scam job postings within the first six months of launch. To achieve this, we will develop and integrate a scam detection process. This addresses the need to protect users from fraudulent job openings and build trust in our platform. We plan to fully implement and test the scam detection system and admin review process within three months of development.

Introduction to Similar Types of Systems

Job portals are an essential platform that connects job seekers with employers. Some of the most popular job portals include LinkedIn and Glassdoor, serving a worldwide audience with large job listings and career guides.

Common features in similar systems include

Job Search: Users can search for jobs using keywords, location, industry, and filters.

Resume Upload: Users can upload resumes to create professional profiles.

Job Alerts: Users receive notifications for new job listings matching their criteria.

Company Reviews: Users can access insights on company culture, salaries, and employee experiences.

Strengths of Existing Job Portals

LinkedIn offers a wide range of job listings and tools for building a professional profile.

Glassdoor provides detailed company reviews, salary data, and valuable insights into the interview process.

JobPal.lk offers a simple interface for job searching and job posting.

New features for improvement

Easy Job Search: Job seekers can search for jobs without the need to log in and Sign in, streamlining the job search process.

Scam Alerts: A report option for scam job alerts ensures user safety and trust.

Diverse Job Listings: Our job portal aims to cater to a diverse audience by providing a wide range of job listings. From entry-level positions to high-level executive roles, our platform will provide opportunities to candidates at every stage of their careers.

Resume Guidance: For those without a resume, the site provides guidance and resources to help users create one for free.
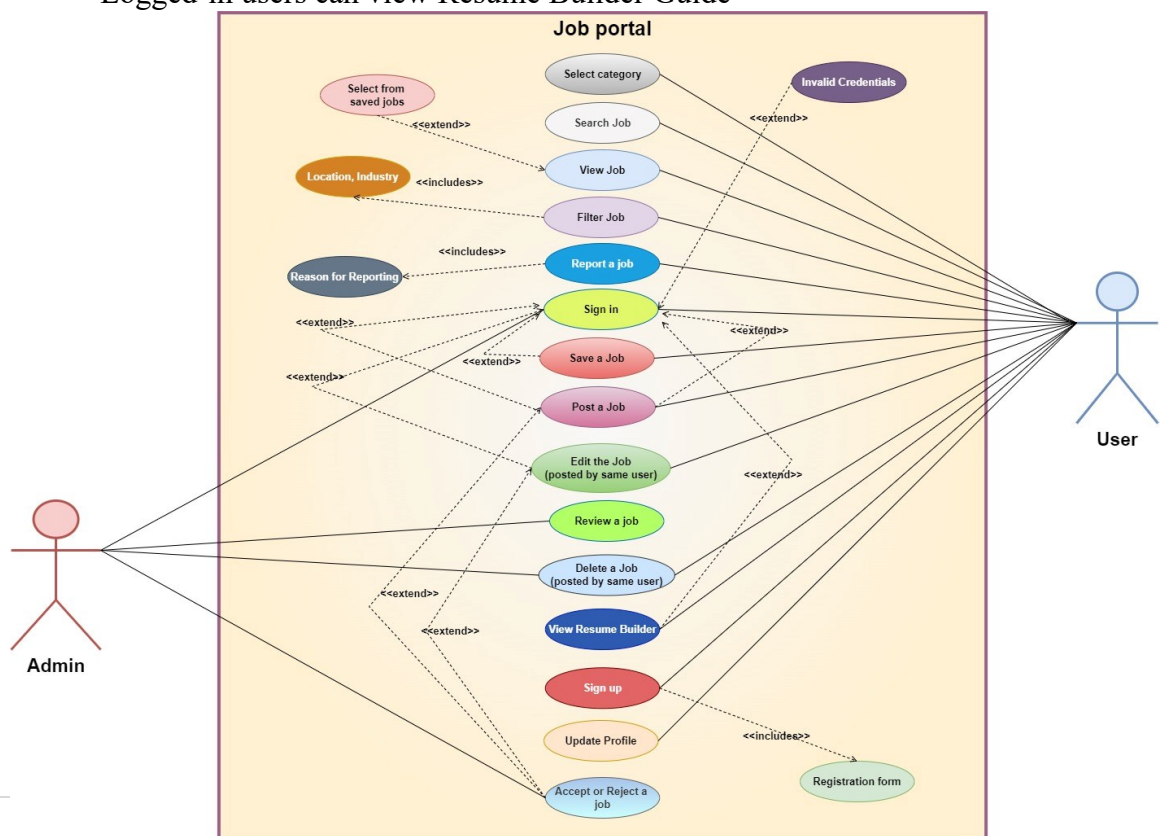
Our portal is going to have clear and simple navigation options. Even people who don't have prior knowledge can be able to apply for jobs.

Proposed Solution

Our proposed solution for this problem is a web-based job portal. Where job seekers can find job vacancies according to their skills and Employers can post their job vacancies. This platform will be an efficient way for job seekers to find all jobs in one place. Employers can post their job vacancies free of charge. We have a scam detection and scam reporting option to maintain the trustability of our platform. We have a resume builder guide to enhance our user's chance to get a job.

A few main functions of our platform:

1. User Authentication (Users still can use our platform without login but functions are limited)
   - Users (Without login)
   - Employers (Logged in)
   - Administrators
2. Profile Management (Employers can create and manage their profile)
   - Employers need to provide their company details and their position
   - They can provide more information to increase the reliability
3. Job Listing
   - Users can search and view jobs
   - User can filter their jobs
   - Users can report a job
   - Employers can post, edit, and remove a job (If the job is posted by themselves)
   - Logged-in users can view Resume Builder Guide

Tech Stack

To develop our job portal, we are planning to use modern technologies which are currently used by the software industry. Even if we are not experts in those technologies we can learn and implement them throughout the project. At the end of the project, we will get some experience in those technologies.

1. **Frontend**
   - Framework:
     - React JS: To build the UI and maintain the User Experience
   - Styling:
     - Tailwind CSS: One of the widely used frameworks for custom styling
   - Component library:
     - Material UI: To create a modern and responsive UI
2. **Backend**
   - Framework:
     - Node JS with Express JS: To efficiently handle concurrent requests
   - Database:
     - MySQL: Relational database for storing user data, resources, and interactions
3. **API**
   - API Type:
     - RESTful API: Most suitable for frontend and backend interaction
4. **UI Design**
   - Figma:
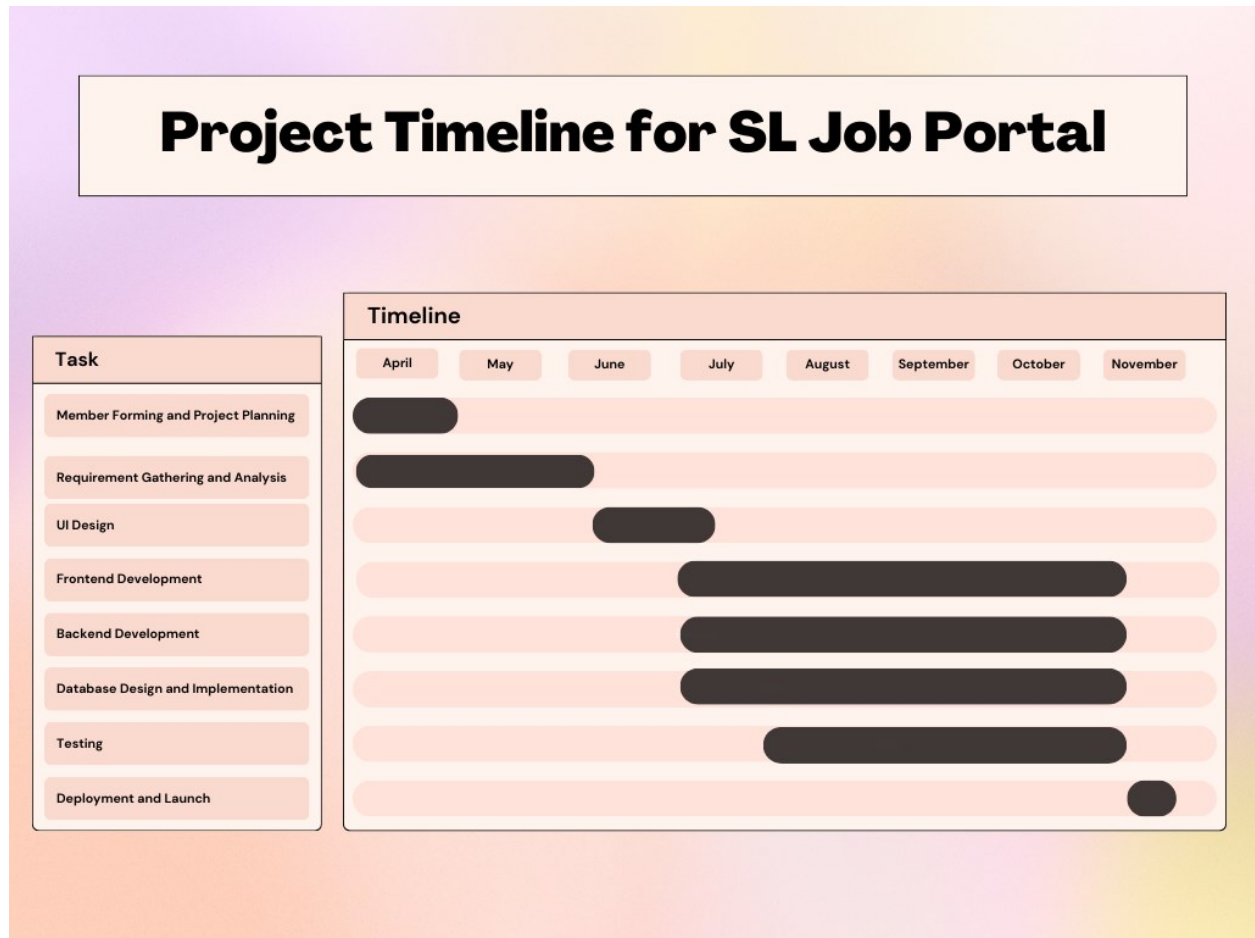   - Widely used tool for designing and has a lot of inbuilt functions
5. **Version Control**
   - Git/GitHub:
     - Web-based platform for version controlling and collaboration
6. **Project Management**
   - Jira:
     - Can handle project management efficiently and document everything that happens in the project

Project Timeline and Conclusion

Our vision is to become the leading job portal in Sri Lanka. We will make the process easier for job seekers to find job opportunities and employers to find suitable candidates. By using modern technologies to power our portal we are aiming to meet its needs and focus on user experience. We will improve our portal continuously to ensure user satisfaction.

With a clear roadmap and a dedicated team, we are all set to transform the way people in Sri Lanka connect with their job opportunities and talent. We will contribute to a brighter future for all.