

JobMatchU

SOFTWARE REQUIREMENT SPECIFICATIONS

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Introduction

Purpose

The purpose of creating a part-time job providing website for students is to provide a platform where students can find employment opportunities that are flexible and suitable for their schedule. By providing a platform where they can find part-time jobs, students can balance their work and studies more effectively.

The website also aims to help small enterprises and job providing companies to find suitable candidates for their part-time job vacancies. These employers may not have the resources to conduct extensive recruitment processes, and the website can provide a cost-effective and efficient solution to their staffing needs. Overall, the purpose of the project is to create a mutually beneficial platform that connects students and employers, facilitating part-time job opportunities that benefit both parties. By creating such a website, the project aims to make it easier for students to find part-time jobs, and for employers to find suitable candidates for their part-time job vacancies.

Scope

The scope of the project, which is a part-time job providing website for students, includes user roles which includes login portals for companies, enterprises and students, job postings by companies when they are available in website, students will be able to search jobs they needed in website, admin dashboard will be available in which above elements will be present.

The scope of the project also includes website design and development, database design and implementation, integration with payment gateway, and testing and deployment. The website will need to be user-friendly, secure, and scalable to accommodate future growth.

Overview

The remaining sections of this document will describe the functional and nonfunctional requirements for the software application. The requirements will be organized into sections that describe the general requirements, functional requirements, nonfunctional requirements, constraints, and assumptions and dependencies.

Stakeholder Analysis

Identification of Stakeholders

Primary Stakeholders

- Students: The primary users of the website who will be searching for part-time job opportunities.
- Job providing companies: The employers who will post part-time job vacancies on the website.
- Enterprises: The small businesses that will post part-time job vacancies on the website.
- Website administrator: The person or team responsible for managing and maintaining the website.

Secondary Stakeholders

- Universities and colleges: Educational institutions promote the website for finding part-time job opportunities.
- Recruitment agencies: Recruitment agencies that may partner with the website to provide additional staffing services to job providing companies and small enterprises.
- Government agencies: Government agencies that may have an interest in promoting employment opportunities for students.

Requirements Proposed By Stakeholders

Students:

- Easy and user-friendly job search interface
- Ability to create and maintain a profile with relevant information, such as education and work experience
- Notification system for new job postings that match their preferences

Job providing companies:

- Easy and user-friendly job posting interface
- Ability to rate previous interns
- Access to candidate information and profiles

By gathering and analyzing these requirements from stakeholders, the project team can ensure that the website is designed and developed to meet the needs of its target audience and achieve its goals.

Requirement Gathering Methodologies

- Public opinion survey:

We circulated a google form to all our friends and relatives and to their friends enquiring about their field of study, categories in which they are interested to do jobs and specifying the type of jobs in selected categories.

General Requirements

Product Perspective

The software application will be a standalone web application that can be accessed from any modern web browser. The application will utilize external data sources to gather information about the type of jobs according to salary and time constraints provided by the students.

User Classes and Characteristics

The target audience for this software application is students who want a part time job. The users of this software application will have basic computer literacy and be familiar with using web applications.

Operating Environment

The software application will be designed to work on any modern web browser, including Chrome, Firefox, and Safari. The application will require an internet connection to access external data sources. In the production environment, the web application should have access to PostgreSQL ..

Design Implementation and Constraints

The software application will be designed using HTML, CSS, JavaScript, React and any necessary web application frameworks. The application will be implemented using a modern web application server.

External Interface Requirements

User Interfaces

- Home Page

User gets home page upon opening the website which provides basic categories of jobs and display some of the jobs in each category and able to navigate to category and login page

- Login and Signup page

The user can login into the application using his email and password. Once logged in users will be greeted to the home page. If the user doesn't have an account, it can be created using the signup option below.

- Profile Information page

User will be able to see and update the basic details and can also view in wishlisted jobs and applied jobs.

- Category page

User will be able to view all the jobs in respective category and can also filter out the required job according to constraints like salary, time duration, job type etc.

Favorites

- Favorites page

User will be able to view the details of the job selected as favourite by them

- Job card

User will be able to see the brief and important details of all jobs like job title, company name, location

- Job description page

Users will be able to view the detailed description of the respective jo cards

Hardware Interfaces

- Computer system:

This includes the hardware components used for running the handwriting recognition software and performing the evaluation. This can include processors, memory, storage, and other components like keyboard, mouse, touch screen and a display.

- Network connection:

A network connection is required to upload and download files, access online resources, and communicate with other users or systems.

Software Interfaces

- Graphical User Interface (GUI):

The graphical user interface of the software is the primary interface for users to interact with the software. It includes features like menus, icons, buttons, and other graphical elements that allow users to navigate and interact with the software.

- Database Interface:

The database interface allows the software to interact with a database or data storage system to store and retrieve data related to the student answers, grading criteria, and reports.

Functional Requirements

Student functionality

- Job Search:
Allow students to search and apply for job openings. The application looks for the keywords entered by the user in the job titles, descriptions, and other relevant fields.
- Job Filtering:
Students can filter out jobs based on their preferences such as job type, location, pay rate, etc.
- Profile Updation:
Users can update their profile with their basic details and can add work experiences.
- Job Wishlisting:
Students can wishlist interested jobs and can also view the status applied jobs.

Provider Functionality

- Profile Updation:
Users can update their profile with their basic details and can add work experiences. The database will be updated accordingly.
- Job Posting:
Allow employers to post part-time job openings on the website, which will include job description, work hours, pay rate, and other relevant details.
- Review Applicants:
The providers will be able to review the applicants and their work experiences, Based on that, they can accept or reject the application.
- Rate hired students:

After the job is done. Employers can rate the hired student.

Chat Functionality

The chat functionality component will allow job providers and seekers to communicate with each other within the platform. They can discuss the job posting and ask any questions they may have.

Non Functional Requirements

- Performance Requirements:

The website should be able to handle a large number of simultaneous users without significant performance degradation. The search and filtering should be accurate and produce results within a reasonable amount of time (e.g., less than 5 seconds).

- Security Requirements:

The website should implement appropriate security measures to ensure the confidentiality, integrity, and availability of user data. This includes implementing user authentication and authorization, encrypting sensitive data (such as passwords and payment information), and using HTTPS to secure communication between the website and users.

- Software Quality Attributes

Usability:

The website should be easy to use and navigate, with intuitive interfaces and clear instructions. This can help to ensure that students can easily find and use the features they need

Reliability:

The website should be reliable and function as expected, without crashing or producing errors. This can help to ensure that student can access the portal when they need to, without interruptions or downtime.

Performance:

The website should be responsive and fast, with minimal loading times and delays. This can help to ensure that student can quickly access the information and features they need.

Security:

The website should be secure and protect sensitive information from unauthorized access or disclosure.

Maintainability:

The website should be easy to maintain and update, with clean and well-organized code that is easy to modify and extend. This can help to ensure that the website remains up-to-date and functional over time.

Scalability:

The website should be able to handle a large number of users and data without slowing down or crashing. This can help to ensure that the website can continue to meet the needs of students as the user base grows.

Compatibility:

The website should be compatible with a wide range of devices and operating systems, to ensure that students can access the portal regardless of the technology they use. Overall, ensuring that the students portal website meets these software quality attributes can help to ensure that student have a positive user experience and can easily access the information and features they need

Literature Review

The current job market in India is highly competitive, with limited opportunities for students seeking part-time jobs. While job search applications exist, they primarily cater to working professionals seeking full-time technical jobs. There is a need for a platform that connects job providers and students seeking part-time non-technical jobs.

In Eastern countries, such platforms have been successful in bridging the gap between job providers and students seeking part-time jobs. By offering a platform that caters specifically to students seeking part-time jobs, these applications help students gain work experience, earn money, and cover their basic needs.

- Nor Aishah Buang and Nooraman Hasan(2011) in the 2000 population census more than 560000 persons in Malaysia between the ages of 10 and 19 years were reported to be working in small industries.
<https://shorturl.at/knQS9>
- Salamonson and Andrews (2006) was conducted a survey of 1314 nursing students and they found that more than three quarters of students held a part time job during their studies.
<https://shorturl.at/gAF15>