

SOFTWARE REQUIREMENT SPECIFICATION FOR A MICROJOB WEBSITE.

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1. INTRODUCTION

SOFTWARE REQUIREMENT SPECIFICATION(SRS) document is a document that describes the nature of a project, software or application. It gives a detailed explanation about a project.

1.1- Purpose

The purpose for this system is to allow employers to post jobs and also find the skills needed for that job. It also lets employees search for jobs and bid on the available jobs.

1.2- Intended Audience and Reading Suggestions

Intended readers groups for this website are business men, employers, employees and anyone with a task/job or anyone in need of a job.

1.3- Project Scope

In this section we discover some of the objectives of this website. This website will be grouped into two main sections;

1.3.1- The Employers Section

Upon registration users will be asked if they wish to post a job or search for a job. This option can later be changed in the website. This system will let employers post jobs on the websites.

1.3.2- The Employees section

Here, the user will be able to search for available jobs that matches his/her skills. The main purpose of this website is to provide job opportunities to people and create job awareness to users. Also help in promoting freelancing

1.4- References

.www.rapidworkers.com

.www.pickoworkers.com

2. OVERALL DESCRIPTION

Here, we are going to be describing this system in terms of product perspective, product functions, user classes and characteristics, and some other aspects

2.1- Product Perspective

This product is a web based application that provides a simple mechanism for users to post, search and bid on jobs both nationally and internationally. The idea of this website originated because we realize many people have some little task to do so they will need some people to do this task. This website will ease this task and also many people need a job but don't have an idea of where they can find one so this website helps them find available jobs. During the period of covid-19, since many people were forcefully denied to work on side, it came to our mind what if some of these jobs could be done from home? It will be great I guess

so since then many web application have been developed to serve for this purpose. That's why we want to develop one of such website to help solve this problem.

The following are the main products included in this project;

2.1.1- User Account

Users will be allowed to create their accounts and also update their profile any time they wish

2.1.2- Search

The system will allow users to search for available jobs and bid on them.

2.1.3- Post

The system shall allow anyone with a job to post it on the website i.e mostly employers and business men.

2.1.4- Payment Gateway

The system will have a third party payment system that will accept transactions and also be able to pay customers.

2.2- User Class and Characteristics

Users should be able to get access to all available jobs in the system.

Employees should have the following characteristics;

- Be able to search for jobs
- Change it profiles anytime they wish
- Communicate with employers

Employers should have the following characteristics;

- Able to post jobs
- Communicate with the system support system
- Able to see all users who bid on their job
- Communicate with several Employees

2.3- Operating Environment

- Work on browsers that supports HTML, CSS & JS
- Work on all Operating system
- Database-SQL

- Client/Server site since we are using JS in the development
- For the hardware aspect, there will be no specific hardware requirements for this website since it is hosted on a server.

2.4- Design and Implementation

- Front end shall be developed using HTML, CSS and JS
- Back end developed using PHP, Microsoft Workbench and may be PYTHON if need be.
- All transactions will be done using a third party payment system such as **Crypto, PayPal, credit/debit card, mobile money** etc.
- Email verification shall be done using third party tool such as MyemailVerifier.

Some other aspect that could slow down the development of this project include;

- Inefficient time management
- too much time spent on smaller task
- Lack of skills
- lack of communication amongst the team
- Hard to implement legal system

2.5- User Documentation

This is that part which describe how you're going to distribute your documentation to your customer and product users.

2.5.1- Description documentation

This website main aim let the public know about available jobs and also lets them apply for those jobs both online and offline. It creates a perfect relationship between employers and employees. It provides people with variety of job opportunities in different career aspect.

2.5.2- Process overview

We assume before using our services, either you are in search for a job and willing to work or you have a task/job and looking for someone to do that job. Once you click our link, you follow the following process to get started with us

- Click on the signup button(top right corner)
- Enter your signup details and confirm your email
- Login to see your dashboard

- post or search for a job(top of the page)

How do you apply a job?

- Navigate to the top of your page and look for and search for the job you re interested in
- If such job is available it will show on the screen else will pop up not found
- Click on the job and select bid on this job
- Enter the necessary information to bid on a job and press submit
- Wait for the employer to contact you

2.6- Assumptions Dependencies

We assume this system will be use worldwide and will be amongst one of the best in future

-It is assumed that the user is familiar with an internet browser and also familiar with handling the keyboard and mouse.

-it is also assumed that the system will always be free from bugs.

3. SYSTEM FEATURES

Functional requirements

- The website should enable you to sign in with different job skills.
- The website should provide the users with necessary skills they need for a job or job application.
- The website should provide some important information about their job or future job.
- The website should provide skill for both male and female because generally females show advantages in verbal fluency, perceptual speed while male outperform females in spatial, working memory and mathematical abilities.
- The website should keep users' information if they decide or if the user gives a confirmation. For example, the user's password. The website will remember it each time they visit the site.
- Users should be able to search.
- The web site should provide specified information, that is, only information needed by the user should be provided.
- The website should be able to give suggestions or references if what the user is searching is not correct or is not in the website.

4. External Interfaces Requirements

4.1- User interface.

Admin will be able to add, edit and also delete information on the website. Users will be able to view all information available for users only.

4.2- Hardware interface.

On pc

It will need hardwares like;

Hard disks from 40 Gb and above.

Ram from 512mb and above.

It will operate on both 32bit and 64bit.

On an android or iOS device

It will need 1Gb of ram and above.

Android or iOS version 6.0 and above.

4.3- Software Interface

Following are the software used for the micro job web application

Operating system; The system will be able to support both ios and android operating system since it shall be build on the idea of native web app development

Database; To save the search records, jobs completed records we have chosen SQL database for this system.

4.4- Communications Interfaces

This project supports all types of web browsers. It will also communicate with all third party scripts installed on the site.

5. NON FUNCTIONAL REQUIREMENTS

Nonfunctional Requirements (NFRs) define system attributes such as security, reliability, performance, maintainability, scalability, and usability. They serve as constraints or restrictions on the design of the system across the different backlogs

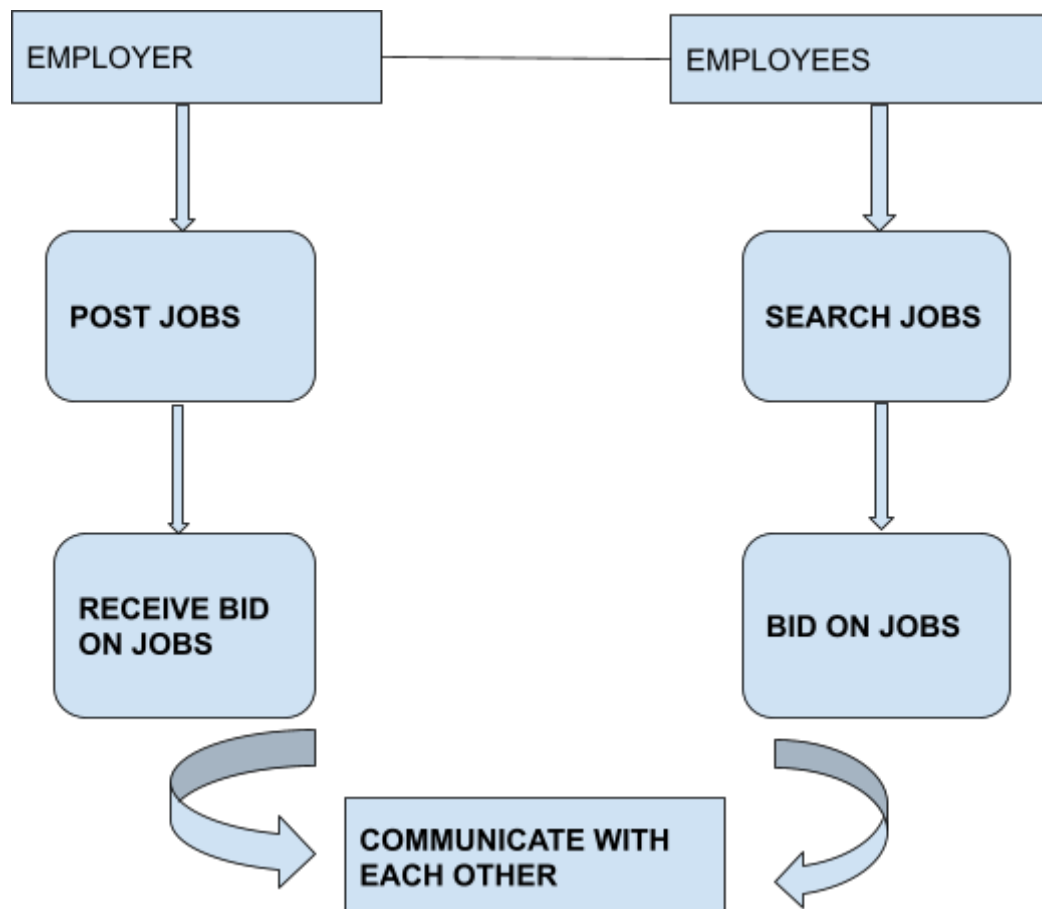
5.1 PERFORMANCE REQUIREMENTS

The steps involved to perform the implementation of a micro job database are as listed below.

A) E-R DIAGRAM

The E-R Diagram constitutes a technique for representing the logical structure of a database in a pictorial manner. This analysis is then used to organize data as a relation, normalizing relation and finally obtaining a relation database.

- **ENTITIES:** Which specify distinct real-world items in an application.
- **PROPERTIES/ATTRIBUTES:** Which specify properties of an entity and relationships.
- **RELATIONSHIPS:** Which connect entities and represent meaningful dependencies between them.



the diagram shows the ER diagram of a micro job website database

B) NORMALIZATION:

The basic objective of normalization is to reduce redundancy which means that information is to be stored only once. Storing information several times leads to wastage of storage space and increase in the total size of the data stored.

If a database is not properly designed it can give rise to modification anomalies. Modification anomalies arise when data is added to, changed or deleted from a database table. Similarly, in traditional databases as well as improperly designed relational databases, data redundancy can be a problem. These can be eliminated by normalizing a database.

Normalization is the process of breaking down a table into smaller tables. So that each table deals with a single theme. There are three different kinds of modifications of anomalies and formulating the first, second and third normal forms (3NF) is considered sufficient for most practical purposes. It should be considered only after a thorough analysis and complete understanding of its implications.

In this website, normalization may be deliberately allowed in some fields, this is because more than one employer might post the same job in the system.

5.2 SAFETY REQUIREMENTS

If there is extensive damage to a wide portion of the database due to catastrophic failure, such as a disk crash, the recovery method restores a past copy of the database that was backed up to archival storage (typically tape) and reconstructs a more current state by reapplying or redoing the operations of committed transactions from the backed up log, up to the time of failure.

5.3 SECURITY REQUIREMENTS

Security systems need database storage just like many other applications. However, the special requirements of the security market mean that vendors must choose their database partner carefully.

5.4 SOFTWARE QUALITY ATTRIBUTES

- **AVAILABILITY:** The websites should be accessed 24/7 and it should also provide good customer support
- **CORRECTNESS:** The micro job site should make sure that the job posted on the websites are real jobs and are available
- **MAINTAINABILITY:** The administrators should always make sure employers pay employees
- **USABILITY:** This website should satisfy a maximum number of customers' needs.

Some other point may include;

- The web should be operational on any device regardless of its capacity.
- Information on the website should be correct.
- The website and its information should be available all the time for perfect usage.
- The web site needs a database for providing and storing the user's information.
- Users' login and other personal information should be secured.
- The web site should be responsive and effective.
- Transactions made on the web should be secured and safe. A record of each transaction should be saved to avoid blackmailing.

Appendix

The following are the list of conventions and acronyms used in this document and the project as well:

User: Normally users can comment or view details of robo shop availability.

SQL: Structured Query Language; used to retrieve information from a database.

SQL Server: A server used to store data in an organized format.

Layer: Represents a section of the project.

User Interface Layer: The section of the assignment referring to what the user interacts with directly.

Application Logic Layer: The section of the assignment referring to the web server.

Data Storage Level: The section of the assignment referring to where all data is recorded.

Use Case: A broad level diagram of the project showing a basic overview.

Class diagram: It is a type of static structure diagram that describes the structure of a system by

showing the system's cases, their attributes, and the relationships between the classes.

Interface: Something used to communicate across different mediums.

Unique Key: Used to differentiate entries in a database.