Requirements Specification Document

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| **Document Title** | Requirement Specification Document |
| **Project Name** | *Job Advertisement Portal* |
| **Version** | *1.0* |
| **Prepared By** | *Team 13* |
| **Date** | *13/02/2025* |

1. Brief Description

This document outlines the functional and non-functional requirements for a Job Advertisement Portal, a platform designed to connect individuals with job opportunities. The portal enables users to post and engage with job offers, such as household services, local labor, or gig-based work.

**Scope:** Verified customers can advertise their services or post job requirements, facilitating secure and efficient connections between customers and users. Applicants will be able to suggest their budget and deadline for completing the job. Customers can then review multiple applications and choose the most suitable candidate based on price, timeframe, and applicant profile. The platform ensures seamless job discovery, direct communication, and secure transactions while maintaining a user-friendly experience.

* 1. **Team Expertise:**

 **Anas Fouad** – Team Leader

 **ADEWOLE Oluwanifemi** – Secretary

 **(frontend)** : **KUSI David, Anas Fouad, (backend): EGBOSI Sopuru, MAKAZI Nelson**– Developers

 **DARA Victor**– Tester

* 1. Rationale of Topic Choice:

The demand for flexible, short-term, and gig-based work has significantly increased in recent years, with individuals seeking employment opportunities outside of traditional full-time roles. Many people offer services such as household repairs, tutoring, delivery, and freelance work but struggle to find reliable clients efficiently. At the same time, customers often face difficulties in hiring trustworthy and skilled workers for short-term tasks.

Existing job portals and freelance marketplaces cater to long-term contracts or specific professional fields, leaving a gap for localized, everyday services. The **Job Advertisement Portal** aims to bridge this gap by providing a **secure, efficient, and user-friendly** platform that connects individuals offering services with those seeking them. Unlike many existing platforms, this system allows applicants to propose their **own budget and deadline**, giving customers greater flexibility in choosing the best offer.

1. Actors

The system will have three main types of users, referred to as **actors**: **Customers, Users, and Administrators**.

* **Customers**: Individuals looking to post job opportunities, review applications, and manage work agreements.
* **Users**: Individuals applying for jobs, proposing budgets and deadlines, and completing assigned tasks.
* **Administrators**: Responsible for managing user accounts, verifying identities, moderating job postings, and ensuring platform security.

1. Functional Requirements :

**3.1 User Authentication and Authorization**:

**Registration**: Users, including customers, freelancers, and administrators, can register with the following details:

* First Name
* Surname
* Email Address
* Phone Number
* Location (Country and City)
* Password

**Login**: Users can log in to their accounts using credentials (email and password).

**Role-Based Access Control (RBAC)**: The platform will implement RBAC to restrict access to certain features based on user roles (customers, users, administrators).

**3.2 Customer Features**:

* job listings with details (title, description, budget, deadline, location, etc.).
* user applications and profiles.
* Select users for the job and initiate communication after acceptance.
* Track ongoing jobs and manage payments.
* Leave reviews and ratings for users after job completion

**3.3 User Features**:

* Create and manage profiles (including portfolios and skills).
* Search and apply for jobs by proposing a budget and deadline.
* Communicate with employers and complete assigned tasks
* Submit work and receive feedback.
* Manage earnings and invoices.
* Report inappropriate or suspicious job listings for review

**3.4 Administrator Features**:

* Manage user accounts (customers and users) by creating, updating, deactivating, or deleting accounts.
* Verify user identities through authentication measures.
* Monitor and moderate job postings, applications, and reviews to prevent misuse.
* Generate system reports and analytics.
* Suspend or ban accounts that violate platform policies

**3.5 Search and Filtering**:

* Advanced search functionality for users (**job type**, **location**, **budget range**, **deadline** and **rating**).
* Customers can search for users based on (**job type**, **location**, **budget range**, **deadline**, **rating, Experience Level)**

**Additional Features:**

* **Sorting Options**: Sort results by relevance, most recent, highest rated, lowest budget, and closest location.
* **Saved Filters**: Users can save and reuse search filters.
* **Search History**: Users can view and quickly access their recently searched criteria.
* **Clear Filters**: Option to clear all filters with a single click.

**3.6 Notification**

* Email and in-app notifications for new projects, bids, messages, and payment updates.

**3.7 Communication**

* Communication between customers and users will only be available after the customer accepts the user’s offer. This will be done through an internal messaging system integrated into the portal.

**3.8 Payment Processing**

Payment processing will be handled on a separate external page to ensure secure transactions which supports Integration with payment gateways **Credit/Debit Card**/**PayPal**/**Cash).**

1. Non-Functional Requirements

**4.1 Performance**

* The system should be able to handle a large number of users and job postings simultaneously.
* The page load time should be minimal, and the search and filtering functionalities should perform efficiently, even with large datasets.

**4.2 Security**

* The system must ensure **secure user authentication** using email-based verification.
* All data, including user profiles and job details, should be securely stored and encrypted.
* The payment page should be secured with SSL encryption.

**4.3 Usability**

* The website will feature a **simple white and blue theme** with clear typography.
* **Responsive design** to ensure compatibility across both desktop and mobile devices.
* Easy-to-navigate interface for posting and applying for jobs, managing user profiles, and making payments.

**4.4 Scalability**

* The system should be designed to scale as the user base grows, allowing future enhancements such as more advanced search and filtering options.

**4.5 Compatibility**

* The portal should be compatible with major web browsers such as Chrome, Firefox, Safari, and Edge.

1. System Architecture

The system will be developed using the **MERN Stack**:

* **MongoDB**: Used as the database to store user profiles, job listings, applications, and other platform-related data.
* **Express.js**: The server-side framework to manage routing, user requests, and communication between the front end and database.
* **React**: The front-end framework used to build a dynamic, interactive user interface.
* **Node.js**: The runtime environment to run JavaScript on the server-side, handling API requests and managing server operations.

The system will include a **RESTful API** to handle communication between the client-side (React) and server-side (Node.js/Express), while MongoDB will store the data.

The payment processing page will be handled externally using an integrated payment gateway (e.g., PayPal).

1. Design and UI Guidelines

* The **theme** for the portal will be **simple** with a **white and blue color scheme** to maintain a clean and modern aesthetic.
* **Main Page**: A search bar will be included prominently, allowing users to filter job listings based on **location** (country and city).
* **Responsive Design**: The platform will adapt seamlessly to different screen sizes and devices, providing a smooth user experience for both mobile and desktop users.

Revision History

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| --- | --- | --- | --- |
| V. | Date | Author | Status |
| 1.0 | 13/02/2025 | Team 13 | Initial Draft |

Sign-Off and Approval

By signing this document, both parties confirm that the requirements outlined accurately represent the agreed-upon scope of the project. Any modifications or additional features requested after signing may be subject to further discussion regarding timeline and cost.

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| Prepared By | Approved By |
| **Name: Anas Fouad** | **Name: Szymon Smolen** |
| Title: Mr. | **Title:** |
| Date: 07/03/2025 | **Date:07/03/2025** |
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