SOFTWARE REQUIREMENTS SPECIFICATION

Online Platform for Local Informal Skilled People

Group Members

Name	ID
Faria Ahmed Richi	22-46371-1
Farhanaz Kamrun	22-46390-1
Eshita Rani Acharjee	22-46397-1

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1. Introduction

1.1 Purpose

This document specifies the Software Requirements for an **online platform that connects local informal skilled workers like electricians, plumbers, tailors etc with potential clients.** The platform aims to **eliminate language barriers** for workers who speak regional dialects such as Sylheti or Chittagonian by allowing them to **upload voice recordings** to showcase their skills. Clients will be able to search for workers **based on location** to find nearby service providers.

1.2 Intended Audience and Reading Suggestions

- Developers: To implement functional and non-functional requirements
- Users (Workers & Clients): To understand the platform's offerings.

1.3 Project Scope

This system is designed to:

- Provide job opportunities to informal workers.
- Enable **voice-based skill showcasing** to overcome literacy barriers.
- Use **location-based search** for efficient worker-client connection.

1.4 References

- IEEE & ACM Software Engineering Standards
- Figma for UX design

2. Overall Description

2.1 Product Overview

The platform is a **new initiative** designed to support informal skilled workers in **Bangladesh**, offering an improved alternative to existing platforms like 'Seba XYZ' by addressing **rural accessibility** and **language barriers**.

2.2 Product Features

1. **Registration & Profile Creation** (including voice uploads)

2. **Job Posting by Clients**

3. **Matching Algorithm** (Based on skillset, location, and availability)

4. **Location-Based Worker Search**

5. **User Reviews & Ratings**

2.3 User Classes and Characteristics

User type	Description
Workers	Skilled people seeking jobs (e.g., electricians, tailors)
Clients	People looking to hire skilled workers
Admin	Manages system operations and user verifications

2.4 Operating Environment

Platform: Mobile (Android, iOS)

Backend: Node.js/Python

Frontend: React.js/Flutter

Database: Firebase/MySQL

2.5 Design and Implementation Constraints

Language Support: Standard Bangla, Sylheti, Chittagonian, English

Authentication: OTP-based mobile verification

Security: End-to-end encrypted messaging

2.6 Assumptions and Dependencies

- Users have smartphones with internet access.

- Google Maps API availability for location tracking.

3. System Features

3.1 Worker Registration and Profile Management

Description:
Workers can register, create a profile, add skills, upload voice recordings, and set availability.
Priority: High

Functional Requirements:

REQ-1: Users can register with phone numbers.
REQ-2: Users can upload a profile picture and voice sample.

3.2 Job Posting and Matching

Description:
Clients can post jobs and workers will receive notifications based on location and skills.
Priority: High

Functional Requirements:

REQ-3: Clients can post job descriptions and expected wage range.
REQ-4: Workers can apply to job postings.

3.3 Voice-Based Skill Showcase

Description:
Workers can record a 30-second voice sample to showcase their skills.
Priority: High

Functional Requirements:

REQ-5: Workers can record and upload their voice.
REQ-6: Clients can listen to voice samples when searching for workers.

3.4 Location-Based Search and Filtering

Description:
Clients can find workers within a specified radius using Google Maps API.
Priority: High

Functional Requirements:

REQ-7: Clients can search for nearby workers.
REQ-8: Results are filtered by skill type and availability.

4. External Interface Requirements

4.1 User Interfaces

SkillLINK

Registration

ENTER NAME

ENTER NUMBER

ENTER OTP

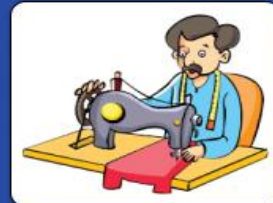ENTER PASSWORD

⦿ CLIENT   ⦿ JOB SEEKER

CREATE ACCOUNT

Track local people more easily with
SkillLINK

Tailor

Electrician

Plumber

🔔

Name- Abdul Karim

Phone no: 0177XXXXXXX

NID No: 0XXXXXXXXX

Ratings:

📎 Audio file of skill showcase

🔍 Search Jobs according skill   ☰

JOB SEEKERS OF

SkillLINK

Tailors
- **Abdul Karim**
- **Nur Nahar**
- **Rahima Begum**

Electricians
-
- **Nurul Islam**
- **Bablu**

Plumbers
- **Asif Ali**
- **Ferdous**
- **Mostafa Haq**

5. Other Nonfunctional Requirements

5.1 Performance Requirements

Performance Requirements

The system should support 10,000+ concurrent users.

Job matches should be processed within 3 seconds.

5.2 Safety Requirements

Data encryption for user privacy.

5.3 Security Requirements

OTP-based user authentication.

Content moderation to **prevent misuse**.

6. Other Requirements

- Database Backup Policy

- Privacy Policy for User Data

- Legal Compliance with Local Labor Laws
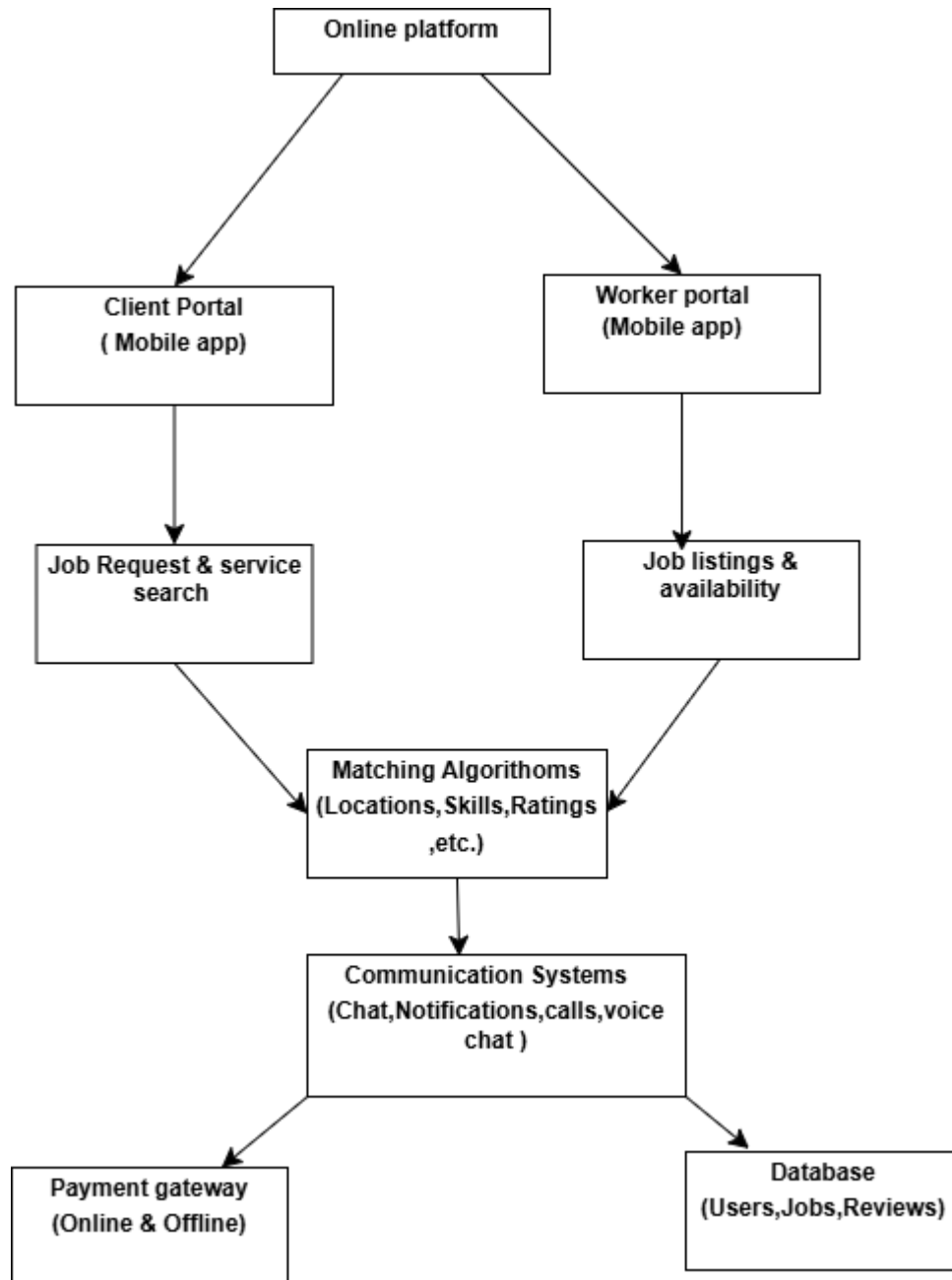
Appendices

Appendix A: Glossary

Informal Worker: A worker without a formal employment contract.

Voice-Based Profile: A feature allowing workers to showcase their skills via audio.

Appendix B: Analysis Models

Use Case Diagram

System Diagram

System Diagram:

Use case diagram: