

“FixMe” by Skitle

Software Requirements Specification

Version 1.0

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1. Introduction

1.1 Purpose

Main purpose of the following document is to build an online system that manages requests for public in-house services. Objective of this management is to ease communication between clients and specialists.

1.2 Inteded Audience and Reading Suggestions

This project is a prototype for the final product and it is restricted within the HSE University premises. This has been implemented under the guidance of University professors. This document is useful to abovementioned professors, system developers and product managers.

1.3 Project Scope

The purpose of the system is to ease the communication between clients (users that request some kind of service) and specialists (users that provide some kind of service). Clients will be able to post requests for services (by specifying service type, location, time boundaries etc.) and Specialists will be able to ‘post’ their services (with provided tags, ratings etc.) into the system. System then automatically matches requested services to the specialists and provides nearly fully-automatic matchmaking system for it’s users.

Over time, accumulated ratings will allow system to be more accurate in achieving fair matchmaking (by correctly matching high rating specialists with high rated customers). Supposedly, this will increase the overall quality of provided services.

2. Overall Description

2.1 Product Perspective

Service stores the following information over time:

- Personal User data
 - Customer – Data includes Name, Surname, Address, History of orders (and their ratings), Payment Credentials
 - Specialist – Data includes Name, Surname, Payment Credentials, Specialization Info, History of orders (and their ratings)
- Global service requests and offers which are constantly being matched with each other
- Analytics information about the ecosystem – Statistics of provided services, prices, etc

2.2 Product Features

Major Features of the system are:

1. Client-side (product-wise) Service Request – Clients should be able to request service with following properties.
 1. Name/Type of the Service
 2. Price Range (if market-available)
 3. Time Range
2. Specialist-side (product-wise) Service Offer – Specialists should be able to offer services to the users indirectly, through the system. Offers have following properties:
 1. Name/Type of the Service
 2. Price Range (if market-available)
 3. Available Time Range
3. Client- and Specialist- sides Rating – Both sides should be able to rate overall Quality of Service through following properties:
 1. Quality of the provided service from both sides.
 2. Overall communication quality from both sides
 3. Time estimation accuracy from both sides.
4. Ecosystem Analytics and Statistics – Both sides should be able to see the State of the Ecosystem in terms of prices, time-estimations, ratings etc. This leads to better service quality (by accurately managing expectations).

2.3 User Class and Characteristics

Client-side flow:

1. Request a service of provided type, price range, location and time boundary
2. Get automatically matched with the Specialist that provides services with provided boundaries
3. Await Specialist at specified time and location
4. Receive a service from the Specialist

5. Pay for the provided service
6. Rate the Specialist and the service

Client should also be able to: - Cancel a service request both before and after being matched with the Specialist

Specialist-side flow:

1. Offer a service of provided type, price range, location and time boundary
2. Get automatically matched with the Client that requested the offered service
3. Navigate to the specified location at the specified time
4. Provide a service
5. Get paid for the provided service (without the inclusion of a FixMe fee)
6. Rate the Client and the service

Specialist should also be able to: - Cancel a service provision both before and after being matched with the Client

NOTE: Service request/offer cancellation is not required to be free for the client or the specialist as this may lead to systematic abuses from the users. Some kind of deposit should be provided from both sides and may be withheld in case of cancellation.

2.4 Operating Environments

Both sides use mobile applications to interact with the system. Mobile applications communicate with the server-side backend that provides most of the business processes such as matchmaking, ratings, etc.

2.5 Design and Implementation Constraints

1. Sensitive User data should be stored securely and according to the local laws
2. System should provide guarantess in terms of reliability of the services provided. In general, no data should be lost in case of malfunctions. Specific SLAs should be calculated later in the development process and agreed upon with the stakeholders.

3. Requirements

3.1 Functional Requirements

1. As a user, i want to be able to see all available services for my location and request them
 1. Service Requests contain following information:
 1. Username, in order to address the user
 2. Email + Phone Number, in order to contact the person
 3. Address

4. Service type (Plumbing, electric works, miscellaneous, etc)
 5. Service description (what needs to be done + user's comments)
2. As a user, i want my service requests to be matched to a specialist and be satisfied in a reasonable time
 1. Reasonable time is calculated from the general availability of specialists and mean TTR (Time To Reponse) in the area. Exact metrics are to be evaluated during development and usage of the system
 2. Match happens when both user and specialist did agree upon terms of the to-be-provided service
3. As a specialist, i want to be able to offer my services in response to users' requests
 1. Offer is a proposal of either providing a service under pre-specified terms or under altered terms (for exmaple, when a service could not be provided without additional payment, i.e. in a hazardous environment)
4. As a specialist, i want to be able to see market analytics for my services, to provide the best experience for users and, on the other hand, dictate terms of services that are appropriate for me and for the market
 1. Analytics may include
 1. Current rate of requests
 2. Requests details with provided anonymity from both user and specialist side
 3. Currently charged rates by service types

3.2 Non-functional Requirements

1. System should be available to the general public with the Uptime SLA of 99.95% of the time
 1. That said, it is appropriate for system to gracefully degrade under unexpected workloads
2. System should provide adequate level of security for users:
 1. Provide a security mechanisms which will protect users and specialists from malicious activities from either side
 2. Provide a security for ALL personal data. In some cases, anonymity is appropriate.
 3. Provide a feedback system that allows moderators to filter out malicious users and specialists