Software Engineering 2: MyTaxiService

Design Document

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Chapter 1

Introduction

1.1 Purpose

This document is intended to help understand and communication of the requirements of the system, explaining both the application domain and the system that you want to accomplish. It explains the functional features of the MyTaxiService, along with interface details, design constraints and related considerations such as performance characteristics. It can be considered as a contract between the developer and the customer. It is the basis for the planning of the project and to estimate its duration and its cost. It is the base for the activities of testing, verification and validation. The RASD should in fact contain sufficient information to verify if the final system actually satisfies the requirements contained in the document itself. This document follows the IEEE standard for software requirements specification documents.

1.1.1 Intended audience

This document is intended for all individuals participating in and/or supervising the project:

- Expected audience of this document is the developers and anyone who intends to develop on this program
- Developers who can review project's capabilities and more easily understand where their efforts should be targeted to improve or add more features to it (it sets the guidelines for future development).
- Project testers can use this document as a base for their testing strategy as some bugs are easier to find using a requirements document. This way testing becomes more methodically organized.

- End users of this application who wish to read about what this project can do.

1.2 Scope

The main accent is to simplify and optimize the access of passengers to the system and to guarantee fair management of taxi queues. We will build flexible and user-friendly web application and a mobile application that will run on Android and IOS mobile phones. This application can be used by anyone who previously will be register on the registration page. After the registration is done the user will have a user name and password that should remember for furthermore usage of the system. The passenger can call a taxi after a successful logging on the application. After that he can call a taxi and he will be informed about the code of the incoming taxi, waiting time. On the other hand taxi drivers will have a mobile application where the major purpose will be to inform the system about their availability, confirmation of a certain call and global map navigation. City is divided into taxi zones that are uniquely associated with corresponding taxi queues for efficient usage of the system.

1.3 Definitions

- Request: Passenger filled form for immediate ride
- Reservation: Passengers can request for a vehicle at least 2 hours before the ride and can reserve his ride
- User: Is a customer who already registered and logged into the system
- Taxi driver: Is a person who legally drives taxi (with driver license and work license) already registered and logged into the system as a driver
- System: Is the system that has to be designed
- Taxi zone: Are the zones in which the city is divided in

1.4 Abbreviations

No abbreviations are been used in this document

1.5 Acronymous

- IEEE Standard 830-1998 Recommender Practice for Software Requirements Specifications
- Specification Document: myTaxiService Project

Chapter 2

Architectural Design

2.1 Overview

2.2 High level components and interactions

2.3 Component view

2.4 Deployment view

2.5 Runtime view

2.6 Component interfaces

2.7 Selected architectural styles and patterns

Chapter 3

Algorithm Design

Chapter 4

User interface design

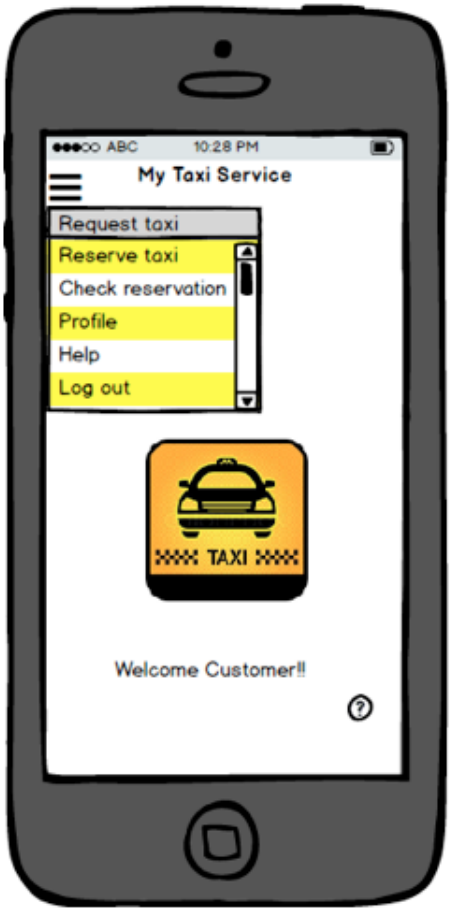
Homepage & registration page

The passenger can access to the registration page and register himself to the application.

Login

This is the login page. Here the user after entered his data can sign in the application.

Menu



This is the menu page, here the user can navigate and choose what to do. There are several options like: reserve taxi, check reservation, profile, help or log out.

Reservation

Here the passenger can reserve a taxi. He needs to insert the starting and destination point, the date and the number of passenger.

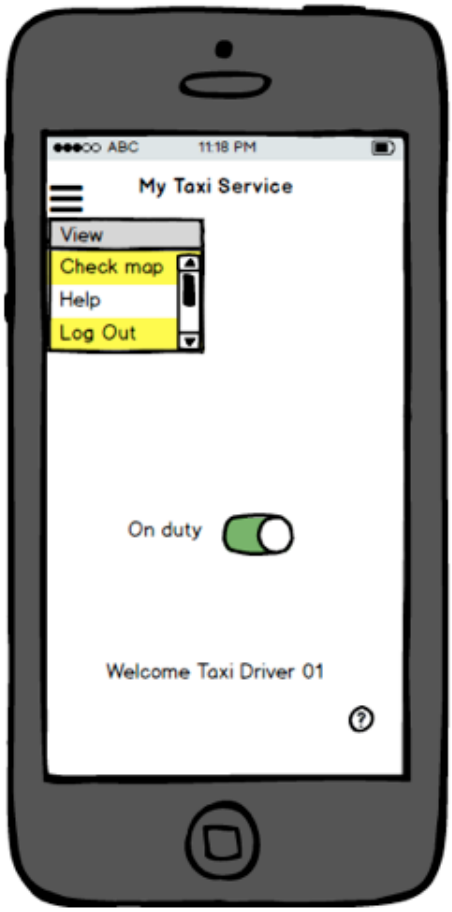
Confirm reservation

In this page the passenger can show a recap of his trip and confirm the reservation by clicking on the button

Recap reservation

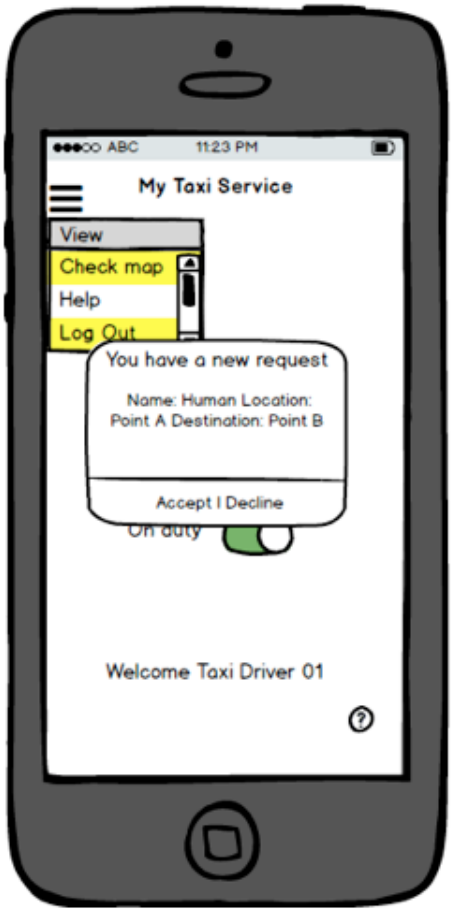
Here the passenger can see the estimate waiting time and the code of the taxi that will pick him up.

Taxi driver homepage



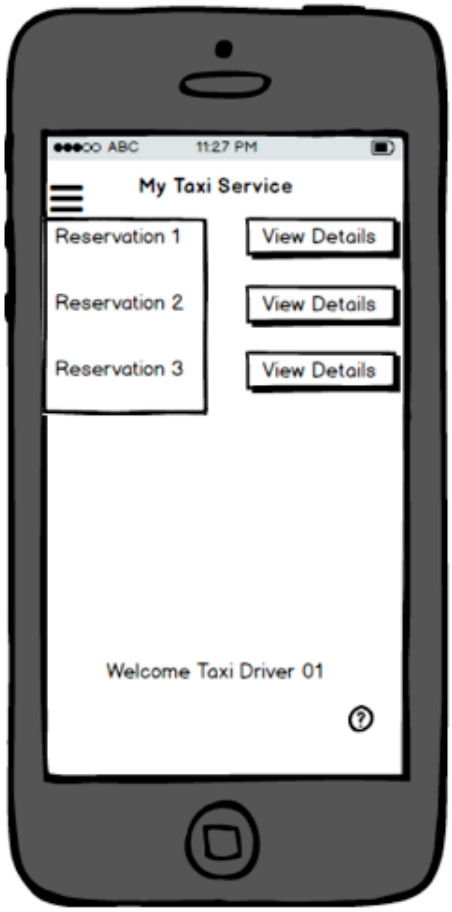
This is the home page for the taxi driver. He can choose from different option such as: Check map, Help or Log out. Also he can change his status in busy or free.

Taxi driver request



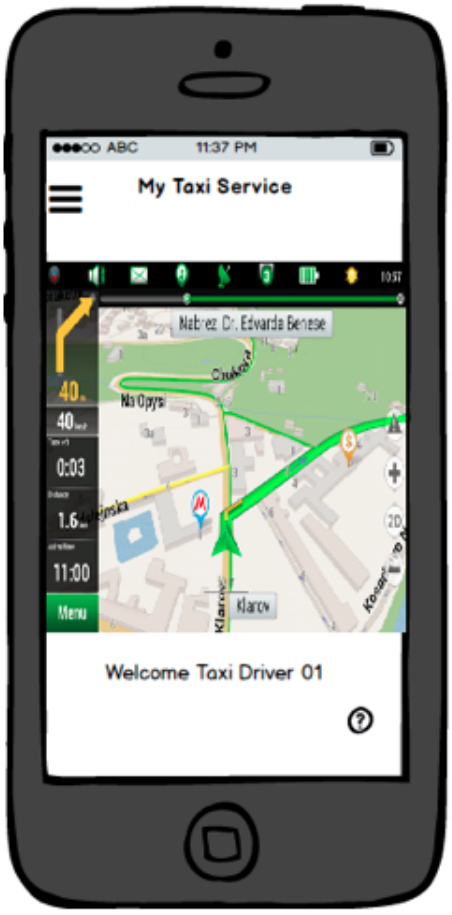
This is the notification that the taxi driver will receive when there is a request of a taxi. He can choose if accept or decline this request.

Reservation list for taxi driver



Here the taxi driver can give a look at the reservation he has in list and its details.

Taxi driver map



In this page the taxi driver can see the map of the itinerary for the reservation he chooses.

Chapter 5

Requirements traceability

Chapter 6

References