myTaxiService

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Design Document

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Contents

Chapter 1

Introduction

This chapter is intended to give an overall description of this document, it contains various sections like:

- **Purpose:** in this section is described the purpose of this document.
- **Scope:** in this section is described the scope of the myTaxiService system.
- **Definitions, Acronyms, Abbreviations:** here are listed all the definitions, all the acronyms and all the abbreviations that the reader will encounter in this document.
- **Reference Documents:** here are listed all the documents that the reader may need to read to better understand what is written in this document.
- **Document Structure:** here is explained the internal structure of this document, giving a fast description of each chapter.

1.1 Purpose

The MyTaxi Service Design Document is intended to provide an explanation of how the system has been designed. It's also destined to give to the software development team an overall guidance to the implementation of the architecture of the software project. These goals are chieved by describing:

- The system architecture;
- Architecture hig-level components;
- Interaction between components;
- Patterns and Styles used to design these components.

1.2 Scope

The scope of myTaxiService is to simplify the interaction between Taxi Drivers and Customers. The main goal is to provide a system to request a taxi and ensure that this will arrive in a small amount of time. Also, customers can reserve taxis for a future ride. The system also ensures a fair management of taxi queues that are divided in city zones in orded to reduce waiting times and to provide a fair division of work between Taxi Drivers.

1.3 Definitions, Acronyms, Abbreviations

1.3.1 Definitions

- Customer: a Customer is the end-user (a taxi customer) that makes request or reservations to use taxis.
- Taxi Driver: a Taxi Driver is a driver of a taxi. He can receive requests and accept or decline them.

1.3.2 Acronyms

- RASD (or R.A.S.D.): is the Requirement Analysis and Specification Document.
- DD (or D.D.): is the Design Document (this document).

1.3.3 Abbreviations

Definitions Acronyms Abbreviations section

1.4 Reference Documents

You can refer to the Requirement Analysis and Specification Document for a better understanding of what is described in this document (myTaxiService R.A.S.D. Link).

1.5 Document Structure

This document is divided in 6 main Chapters:

- Introduction: this chapter is used to give a general overview of this document (purpose, references etc..).
- Architectural Design: in this chapter is described the general architecture of the system and his components. It's also described how the components interacts with each other and the Design Patterns and Architectural Styles used to design them.

- Algorithm Design: here is described the most relevants algorithms used to create the system.
- User Interface Design: here is described the end-user interface of the mobile and web applications.
- Requirements Traceability: here is described how the requirements described in the RASD document are implemented in the various components of the system.
- References: in this chapter, there are useful references to external resources that helps to understand this document.

Chapter 2

Architectural Design

In this chapter, is described the architecture of the system and the various components that will compose the system. Here it's also described how these components will interact to each other to perform the various tasks that the system have to do to provide to the users the functions described in the RASD document.

2.1 Overview

2.2 High Level Components and Their Interaction

2.3 Component View

component view section

2.4 Deployment View

deployment view section

2.5 Runtime View

runtime view section

2.6 Component Interfaces

component interfaces section

2.7 Selected Architectural Styles and Patterns

selected architectural styles and patterns section

2.8 Other Design Decisions

other design decisions section

Chapter 3

Algorithm Design

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Chapter 4

User Interface Design

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Chapter 5

Requirements Traceability

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Chapter 6

References

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