Politecnico di Milano

Software Engineering 2 Project
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MyTaxiService
Design Document
Version 1.0

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Chapter 1

Introduction

1.1 Purpose

This document represents the Software Design Description (SDD), also simply called Design Document, for myTaxiService.

The purpose of this document is to give all the interested parties a closer look at how myTaxiService is designed and architected, with a particular emphasis on what design decisions the development team has made and the rationale behind them.

1.2 Scope

1.3 Definitions, Acronyms, Abbreviations

1.4 Reference Documents

1.5 Document Structure

In order to let stakeholders easily navigate through the document and find all the relevant information, we will now briefly discuss its structure and give a short description of each section.

In the Architectural Design section, we will go in depth describing how the system is designed from different point of views. In particular, we will provide:

- A general overview of how the system is architected from a high level point of view
- A description of the main components that make up the system, their inner structure and the relations between them

- A view of how the components of the system are actually deployed on the physical infrastructure
- A detailed view of the normal runtime conditions in which the system operates, with sequence diagrams of the main tasks
- A list of the significant architectural styles and patterns that have been chosen to implement the system

In the Algorithm Design section, we will focus on defining the most relevant and critical algorithms that drive the system operations. In particular, for each of them we will provide a short pseudo-code representation outlining their key steps.

In the User Interface Design, we will mainly reference the existing UI sketches that were already defined in the RASD and further refine them.

Finally, the Requirements Traceability section will explain how our software architecture fulfills the requirements that were identified in the requirement analysis phase and how those requirements have influenced our design decisions.

Chapter 2

Architectural Design

2.1 Overview

2.2 High level components and their interaction

2.3 Component view

2.4 Deployment view

2.5 Runtime view

2.6 Component interfaces

2.7 Selected architectural styles and patterns

2.8 Other design decisions

Chapter 3

Algorithm Design

Chapter 4

User Interface Design

Chapter 5

Requirements Traceability

Chapter 6

References

Appendix A

Hours of work