

Politecnico di Milano

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Software Engineering 2 Project

**myTaxiService**

**Design Document**

Alessio Martorana - 860584

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# 1 Introduction

## 1.1 Purpose

This document represent the Design Document (DD), it regards

Data design and on how the interaction between our system and the users should be.

In this document the architecture and design of myTaxiService application are described.

The document explains user interactions, system responses and behavior with the database modeling and structure.

In this document the way in which the use cases and requirements listed in RASD will be implemented.

The document is expected to be ridden by system developers.

## 1.2 Scope

System main goal is to supply to users of a big city a simple access to taxi service and to ensure a fair taxi queue management, in order to optimize user request assignment.

The system basic architecture will be a three-tier client/server architecture, composed of: client, server database and server application; also an event architecture is used together with the client/server one in order to set up the *Model View Controller* pattern.

The entire system is divided into smaller components in order to divide responsibilities and set up a design as much as good as possible.

[properties of the system and of the system briefly described?]

## 1.3 Definitions, acronyms, and abbreviations

* **Guest:** A person who hasn’t either signed up or logged in to the application yet and, therefore, could only register to the application or log-in to the application;
* **User:** A person who has successfully logged in to the application and, hence, can use all the features of the application offered to users;
* **Taxi driver:** Driver of one of the taxis handled by the system;
* **Taxi request:** Indicates a taxi request performed by the user through the application;
* **Status [USED?]:** Indicates if the taxi driver is “Available” or “Unavailable”, as specified in the next point;
* **Availability:** Indicates if a taxi driver is “at work” and so could be considered a valid taxi to which the system can forward a user request.
* **RASD:** Requiremente Analysis and Specification Document

***[INSERISCI ALTRI TERMINI STRANI USATI NEL DOC]***

## 1.4 Reference Documents

* Project material: Assignments 1 and 2.pdf
* Project material: IEEE Standard Systems and software engineering - Architecture description
* Project material: IEEE Standard for Information Technology—Systems Design— Software Design Descriptions.pdf

## 1***.5 Document Structure***

The document is structured in the following parts:

* *Introduction:* Is where the document is described and architecture and design of the system are introduced.
* *Architectural Design:* In this central part of the document, the particular style of the architecture and design of the system is examined in details; in particular is specified if the system (as often happens) will be divided in smaller components, which role and task every component has and how the components will communicate each other.
* *Algorithm Design:* Here the main algorithms which are used in the system are discussed and analyzed in order to show their role in the system logic.
* *User Interface Design:* Here all the user interfaces of the system are described, also the detailed flow among interfaces is showed.
* *Requirements Traceability:* In this section requirements found in the RASD are associated and made traceable [RIVEDI]
* *References:* In this chapter the guidelines examined to create this document are listed.
* *Appendix:* Contains all the information that are not strictly related to the document, but is somehow linked to it like, for example, used tools. [LISTA TROPPO CORTA?]