Politecnico di Milano
School of Industrial and Information Engineering
Master course in Computer Science and Engineering
DEIB Department

Design **D**ocument (DD)

Moreno SARDELLA - 859239

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Abstract

Purpose: this document represent the Design Document (DD) of MyTaxiService project.

Scope: architectural and logical design of the MyTaxiService project.

Brief summary: the main activity concerned with modeling the project architecture defining the components and how they interact.
In order to do this, there was a «software design principles» study, which include the use of UML diagrams.

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Introduction

0.1 Purpose

This document represents the Design Document (DD), describes the architectural and logical aspects of the MyTaxiService project design (according to the RASD document).

0.2 Scope

The Design Document shows the main aspects of the MyTaxiService project, in terms of components and sub-components.
They are described in more aspects, logical, architecural and visual, also in their interactions.

0.3 Definitions, acronyms and abbreviations

0.3.1 Definitions

- **Notification**: a short SMS sent from the system to a user to signal something.
- **Login**: the procedure through which a guest, entering his credentials, authenticates as a user.
- **Logoff**: the procedure though which a user disconnects himself/herself from the system.
- **System**: the whole MyTaxiService service (includes app and website).
- **Sign up**: the procedure through which a guest registers herself/himself to the service creating a new account.

0.3.2 Acronyms

- **ID**: Identifier
- **DD**: Design Document
- **ETA**: Estimated Time of Arrival
- **GUI**: Graphic User Interface
- **OS**: Operating System
- **RASD**: Requirements And Specifications Document
- **UML**: Unified Modeling Language

0.3.3 Abbreviations

0.4 References

Requirements And Specification Document: "RASD".
The structure of this document follows the standard "IEEE Recomended Practice for Architectural Description of Software".

0.5 Overview

This document is composed by four part:

1. Architectural Design: high level information about the product with more focus about the functionality of components, how they are mapped into architectural parts and how their interfaces are made.
   The use cases defined in RASD are rediscribed in a more low level through sequence diagrams.
2. Algorithm Design: definition of the most relevant algorithmic part of the MyTaxiService project.
3. User Interface Design: app and web GUIs and releated navigation.
4. Requirements Traceability: mapping of the requirements defined in RASD into previous designed components.

Chapter 1

Architectural Design

Chapter 2

Algorithm Design

Chapter 3

User Interface Design

Starting from the following Use Case diagram

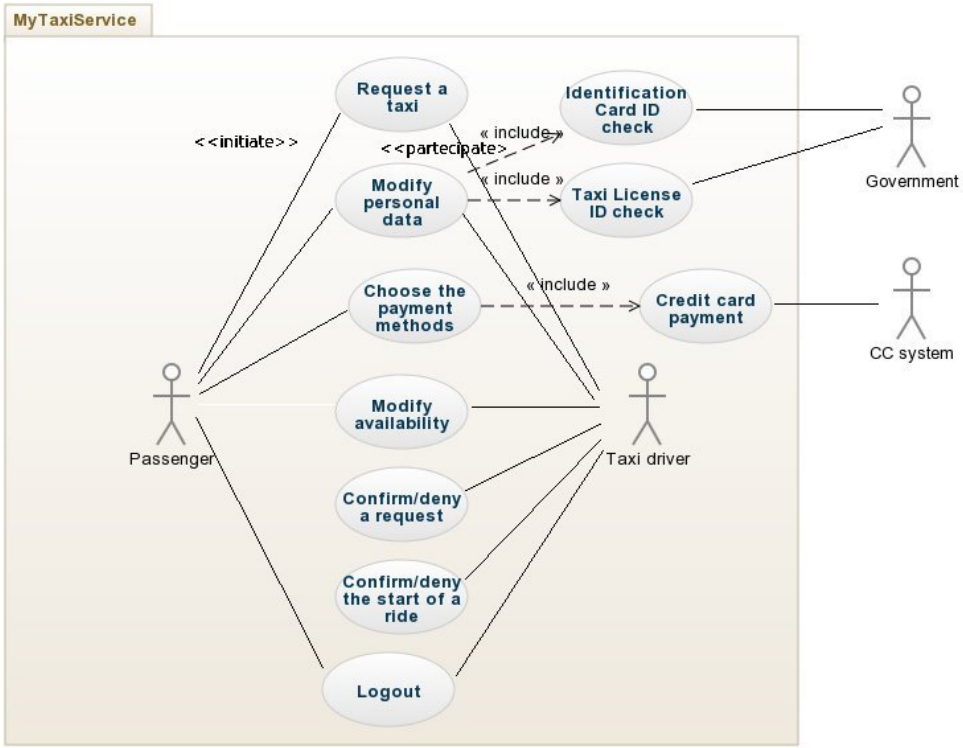

Figure 3.1: Use Case diagram of MyTaxiService

here are the user experience from the point of view of both passenger and taxi driver.

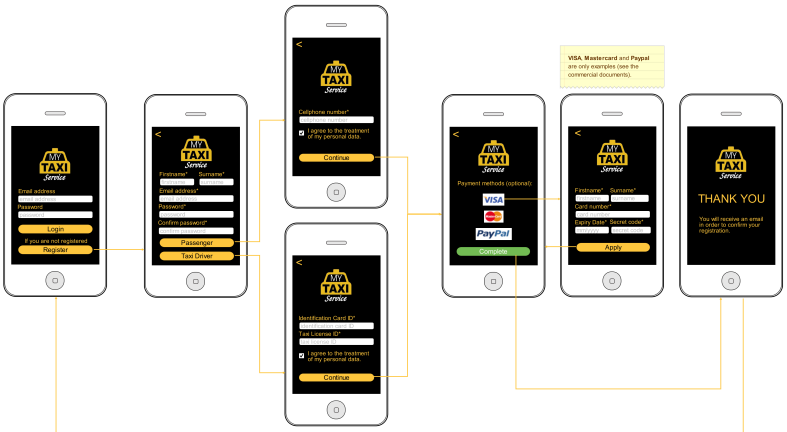

Figure 3.2: App GUIs - Registration

3.1 Passenger side

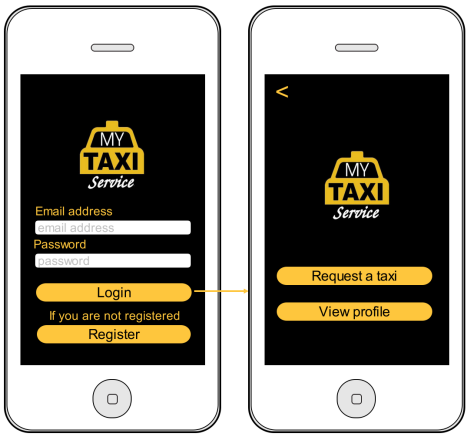

Figure 3.3: App GUIs - Passenger - Login

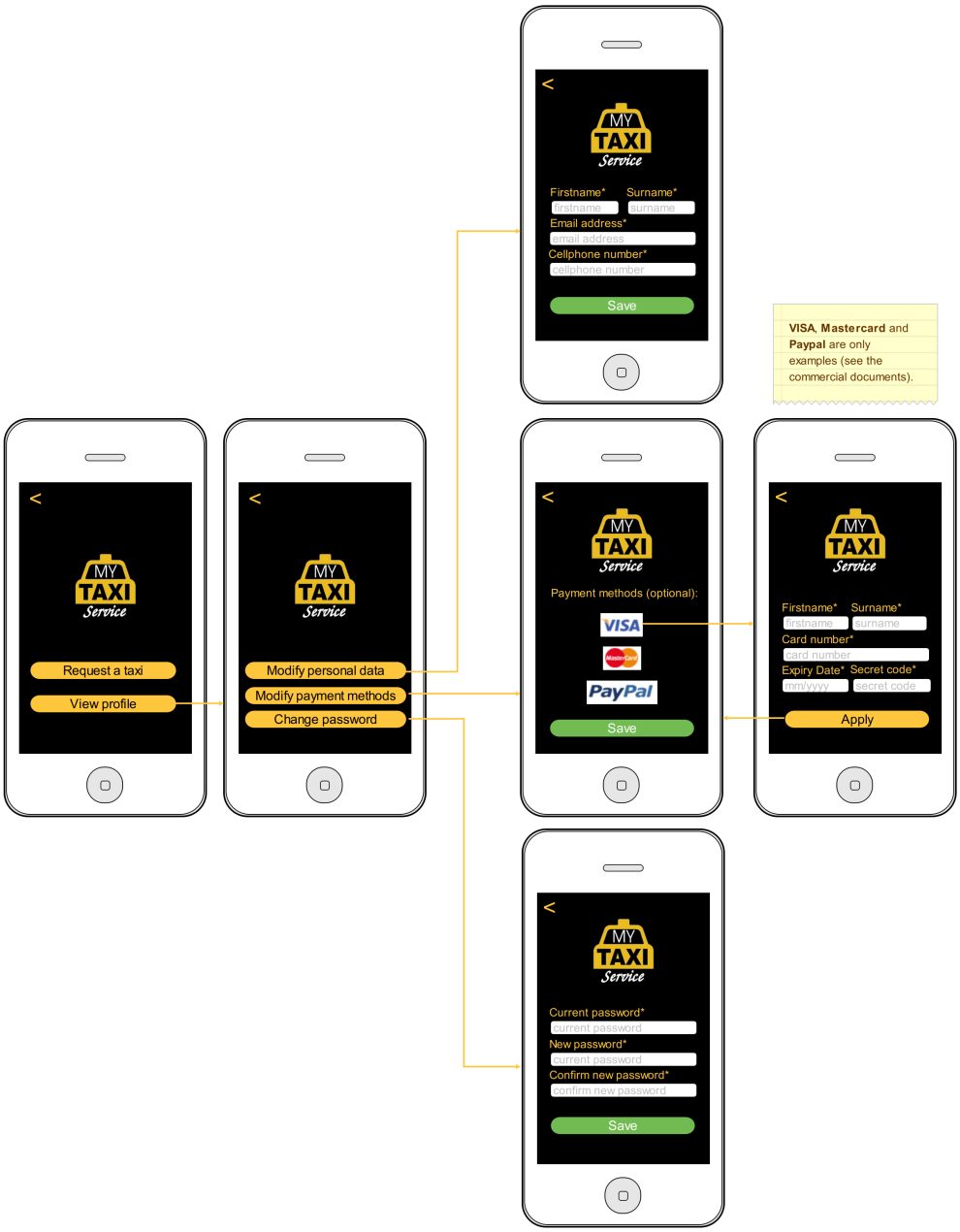

Figure 3.4: App GUIs - Passenger - View Profile

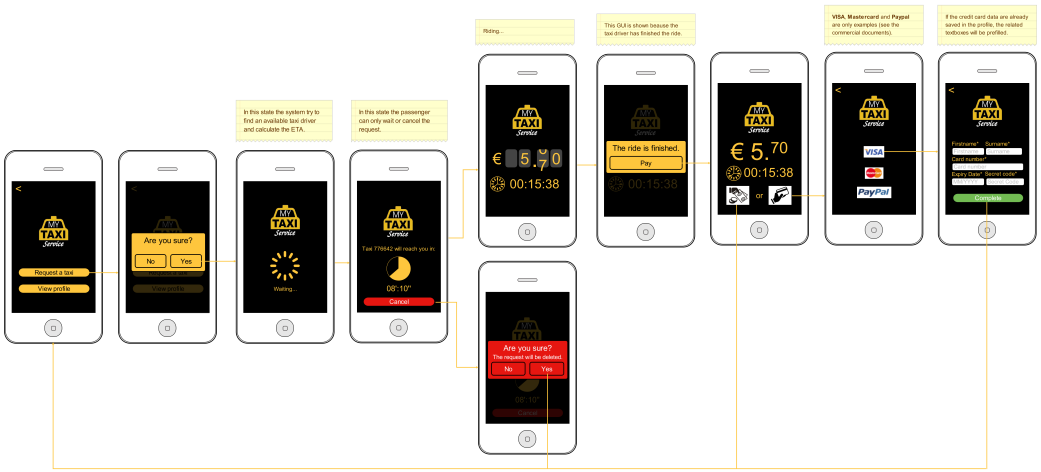

Figure 3.5: App GUIs - Passenger - Manage a ride

3.2 Taxi driver side

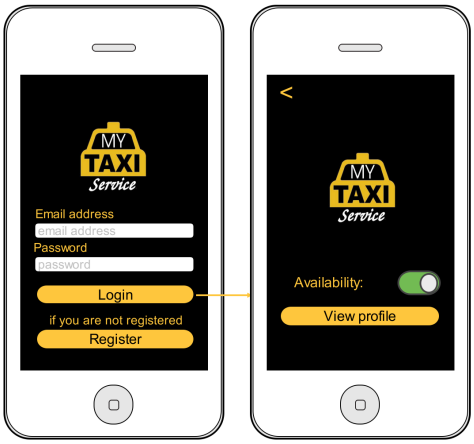

Figure 3.6: App GUIs - Taxi driver - Login

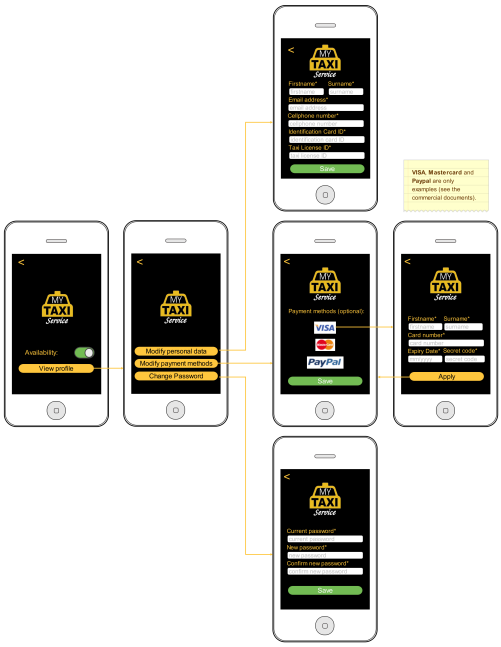

Figure 3.7: App GUIs - Taxi driver - View profile

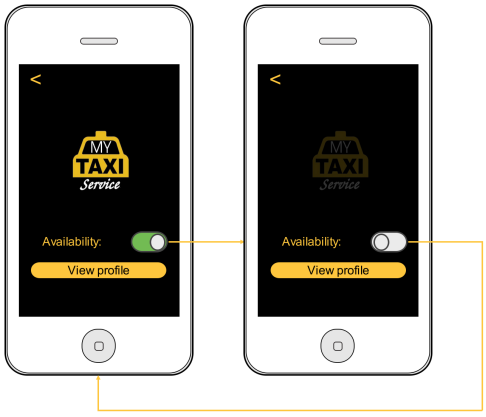

Figure 3.8: App GUIs - Taxi driver - Set availability

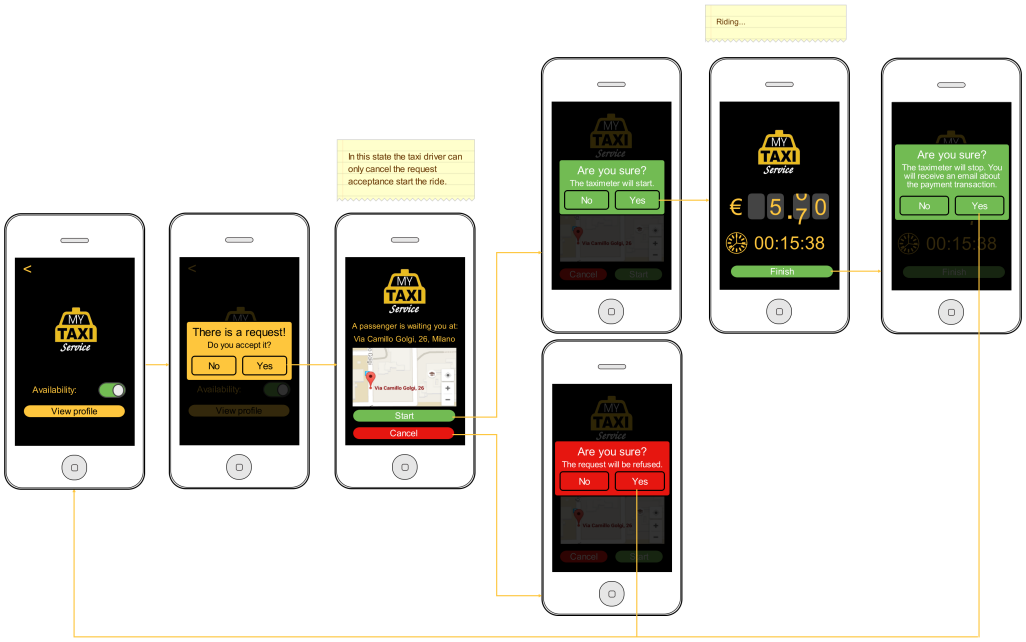

Figure 3.9: App GUIs - Taxi driver - Manage a ride

Chapter 4

Requirements Traceability

Appendix A

Document Informations

A.1 Effort

Approximately **50 hours** have been spent making this document.

A.2 Tool Used

- **LyX**: www.lyx.org
- **Moqups**: https://moqups.com/