Politecnico di Milano
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Master Course in Computer Science and Engineering
DEIB Department

Integration Test Plan Document (ITPD)

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Abstract

Purpose: this document represent the Integration Test Plan Document (ITPD) of MyTaxiService project, in order to guide its integration testing team.

Scope: plan the integration tests of the MyTaxiService project.

Brief summary: the main activity concerned with finding all possible test cases which regard the component interfaces defined in the Design Document.

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Introduction

0.1 Revision History

Table 1: Detailed history of the document revisions

Name	Date	Note
ITPD	21/01/2016	Document creation

0.2 Purpose

This document represents the Integration Test Plan Document (ITPD), planning the integration tests of the MyTaxiService project design (according to the DD), in order to guide the test integration team.

0.3 Scope

The Integration Test Planning Document describes a planning of the MyTaxiService integration testing, which takes as its input software components (described in DD) that have been unit tested, groups them in larger aggregates, tests their interfaces, and delivers as its output the integrated system ready for system testing.

0.4 Definitions, acronyms and abbreviations

0.4.1 Definitions

- **System:** the whole MyTaxiService service.

0.4.2 Acronyms

- **DD:** Design Document
- **ETA**: Estimated Time of Arrival

- **GUI**: Graphic User Interface
- **MVC**: Model View Controller
- **OS**: Operating System
- **RASD**: Requirements And Specications Document
- **UML**: Unied Modeling Language
- **WRT**: With Respect To

0.4.3 Abbreviations

- **ID**: Identier
- **UX**: User Experience

0.5 Overview

This document is composed by four parts:

1. Integration Strategy: describes the integration test prerequirements and strategy, lists all features to be tested and the related software components.
2. Individual Steps and Test Description: defines the input/output sets under which the testing team determine whether the system features work (according to the RASD and to the DD).
3. Tools and Test Equipment Required: tools throuth which the integration test team does the tests.
4. Program Stubs and Test Data Required: stubs and special data required by the integration tests.

Chapter 1

Integration Strategy

1.1 Entry criteria

Before starting the *integration testing* of a module, it must be individually correct, i.e. its *unit testing* must be already done.

1.2 Elements to be Integrated

The integration testing concerns of the components described in the DD.

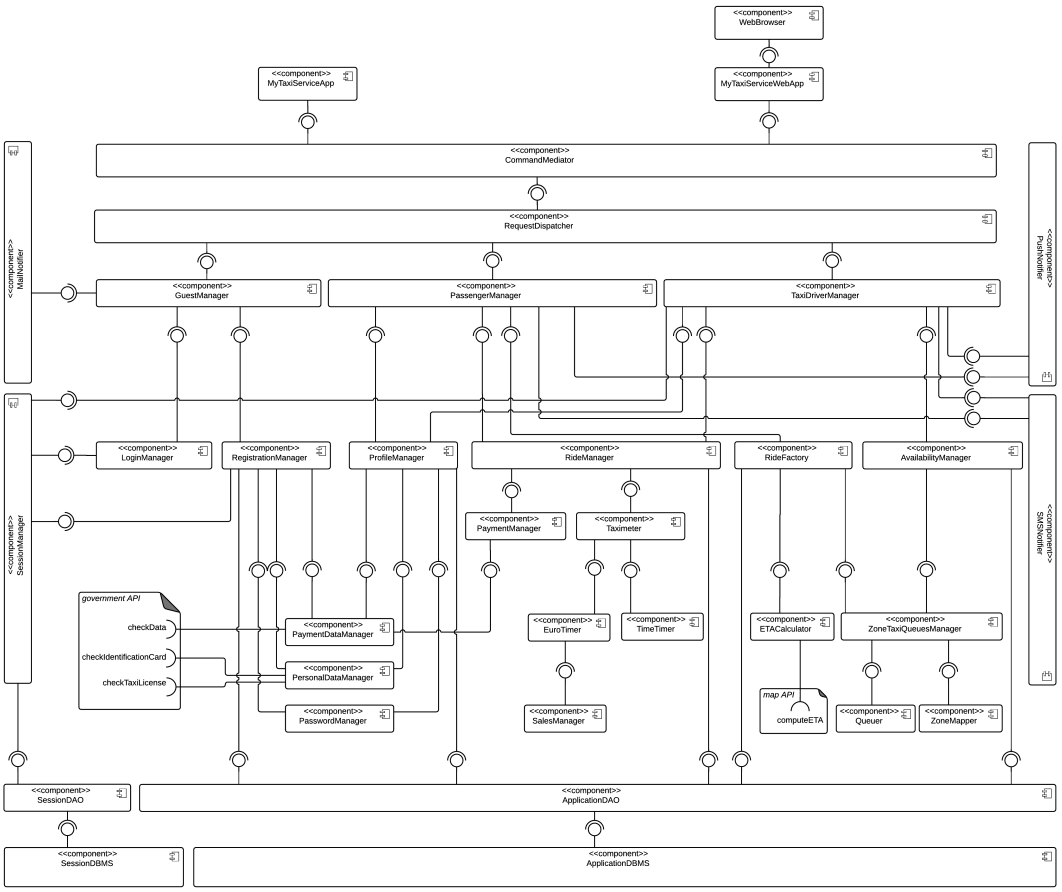

Figure 1.1: Components of MyTaxiService from a software point of view

1.3 Integration Testing Strategy

According to the design, a suitable testing approach could be the ***bottom-up*** one, because all the major flaws are captured towards the bottom of the program.

Observation: there is no need to test the WebBrowser and the DBMS modules because they have already tested by their software houses.

1.4 Sequence of Component/Function Integration

Starting from the main functionalitities described in the DD, the following figures show the involved component and the order for integrating them into the system.

1.4.1 Registration

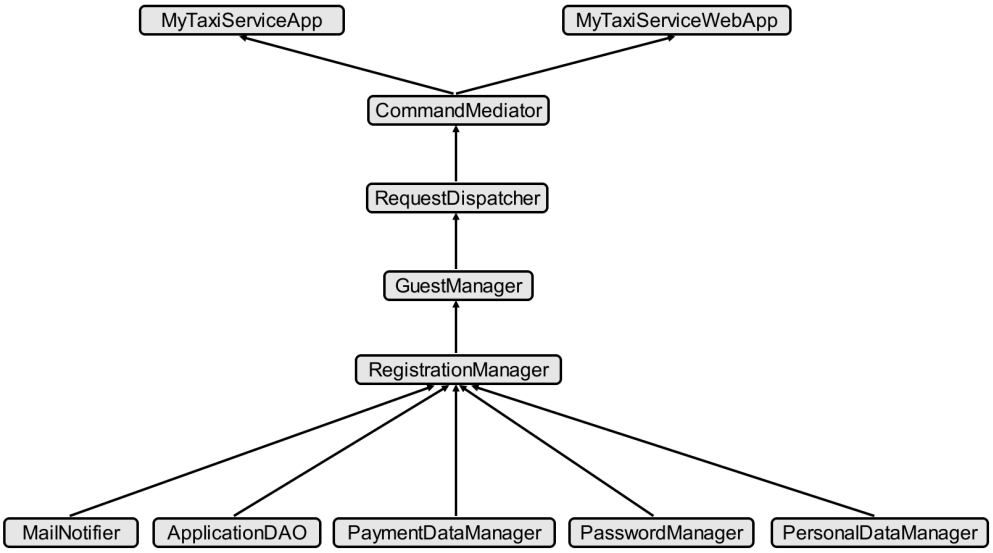

Figure 1.2: Components to be integrated in the registraion phase

1.4.2 Login

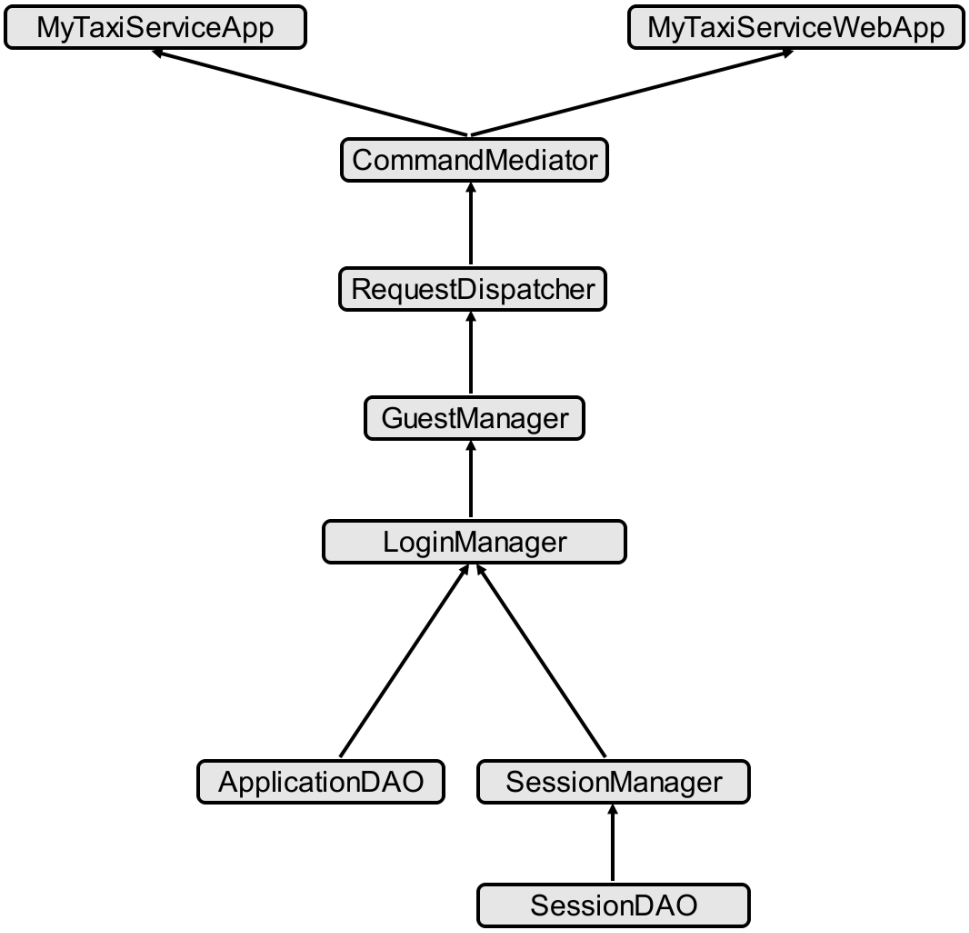

Figure 1.3: Components to be integrated in the login phase

1.4.3 Request a Taxi

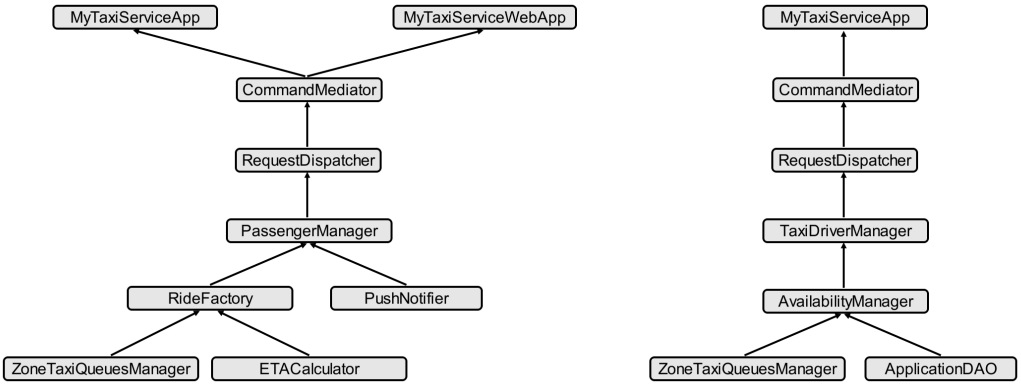

Figure 1.4: Components to be integrated in the taxi request phase (right: TaxiDriver perspective; left: Passenger perspective)

1.4.4 Start a Ride

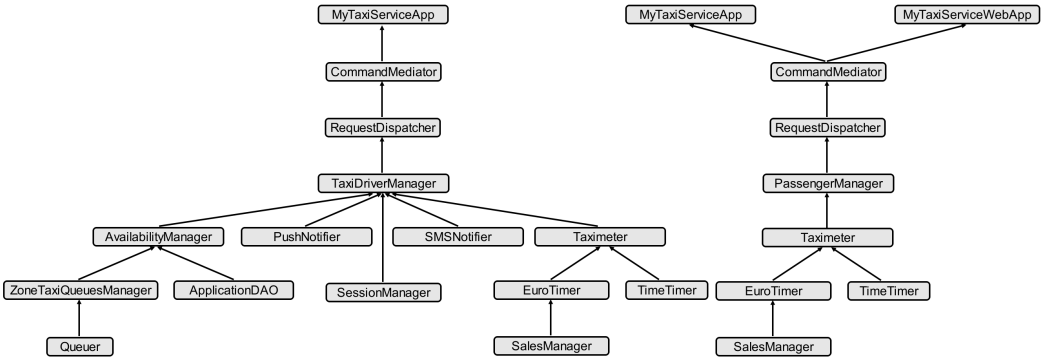

Figure 1.5: Components to be integrated in the initial ride phase(left: TaxiDriver perspective; right: Passenger perspective)

1.4.5 Finish a Ride

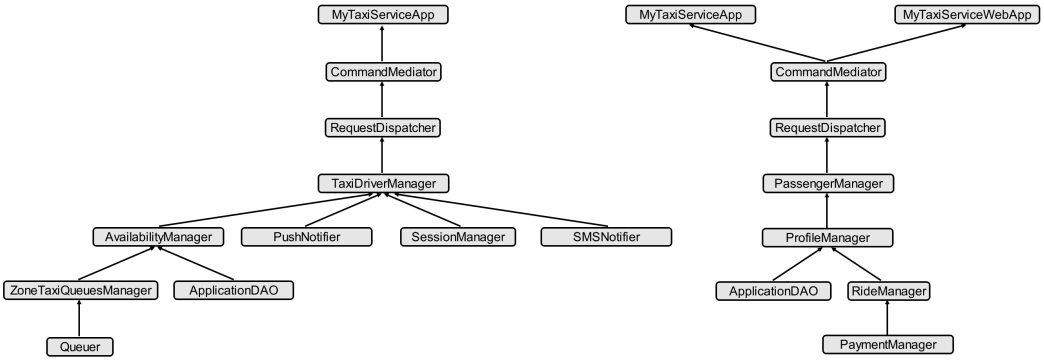

Figure 1.6: Components to be integrated in the ending ride phase (left: TaxiDriver perspective; right: Passenger perspective)

Chapter 2

Individual Steps and Test Description

2.1

Chapter 3

Tools and Test Equipment Required

Chapter 4

Program Stubs and Test Data Required

Appendix A

Document Information

A.1 Effort

Approximately **10 hours** have been spent making this document.

A.2 Tool Used

- **LyX**: www.lyx.org

Appendix B

References

- [1] Latest RASD document in:
  https://github.com/SardellaMoreno/MyTaxiService/tree/master/Deliveries
- [2] latest DD document:
  https://dl.dropboxusercontent.com/u/79082424/DD-version3.pdf
- [3] Assignment 4 - integration test plan
  https://dl.dropboxusercontent.com/u/79082424/Assignment%204%20-%20integration%20test%20p