



# POLITECNICO MILANO 1863

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Software Engineering 2

## Assignment 4: Integration Test Plan

Version 1.0

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## 1 Introduction

### 1.1 Revision History

This is the first version of the document. There are no previous versions.

Revision	Last Edited	Changes
1.0	xx/01/2016	Document redaction

### 1.2 Purpose and Scope

The Test Plan Document (ITPD) describes the plan to accomplish the integration test. This document is supposed to be written before the integration test really happens and takes the architectural description of the software system as a starting point, for this reason it is often redacted in parallel with the Design Document. It explain to the development team what to test, in which sequence, which tools are needed for testing (if any), which stubs/drivers/oracles need to be developed.

The purpose of integration testing is to verify functional, performance, and reliability requirements of individual software modules of the product when they are combined and tested as a group; i.e., units (or groups of units) are exercised through their interfaces. The aim is to test the modules interactions incrementally, with success and error cases being simulated via appropriate parameter and data inputs. Simulated usage of shared data areas and inter-process communication is tested and individual subsystems are exercised through their input interface. Test cases are constructed to test whether all the components interact correctly, for example across procedure calls or process activations.

This is done after testing individual modules, i.e., unit testing; the overall idea is a "building block" approach, in which verified assemblages are added to a verified base which is then used to support the integration testing of further assemblages up to the complete final system (the testing on the complete system is not part of this integration testing phase).

### 1.3 List of Definitions and Abbreviations

The following acronyms are used in this document:

- RASD: Requirements Analysis and Specification Document
- DD: Design Document

The following definitions are used in this document:

### 1.4 List of Reference Documents

- Specification document: myTaxiService project
- Requirements Analysis and Specification Document (RASD) for myTaxiService
- Design Document (DD) for myTaxiService

## 2 Integration Strategy

### 2.1 Entry Criteria

It is supposed that the unit testing phase has already been completed successfully.

## **2.2 Elements to be Integrated**

## **2.3 Integration Testing Strategy**

## **2.4 Sequence of Component/Function Integration**

### **2.4.1 Software Integration Sequence**

### **2.4.2 Subsystem Integration Sequence**

## **3 Individual Steps and Test Description**

## **4 Tools and Test Equipment Required**

## **5 Program Stubs and Test Data Required**

## **6 References**

Material from Wikipedia

- Integration testing: [https://en.wikipedia.org/wiki/Integration\\_testing](https://en.wikipedia.org/wiki/Integration_testing)

## **7 Appendix**

### **7.1 Software and tools used**

- TeXstudio 2.10.6 (<http://www.texstudio.org/>) to redact and format this document.

### **7.2 Hours of work**

The time spent to redact this document:

- Baldassari Alessandro: 20 hours.
- Bendin Alberto: 20 hours.
- Giarola Francesco: 20 hours.