

# Software Engineering 2 Project, AA 2015-2016

## Assignments 4 – Test plan

### 1 Your task

Assignments 4 consists in the creation of an Integration Test Plan Document (ITPD) for the myTaxiService problem. Your inputs are the text of assignments 1 and 2 and the documents you have prepared for these two assignments (RASD and DD).

All students should refer to the general project rules document for more details on deadlines and general rules for the project.

### 2 The document to be created

The Test Plan Document (ITPD) aims at describing how you plan to accomplish the integration test. This document is supposed to be written before the integration test really happens. Often it is written in parallel to the Design Document and takes the architectural description of the software system as a starting point. This document needs to 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 structure we suggest for this document is the following (if you introduce changes to this structure, please provide a justification for this):

#### FRONT PAGE as usual

#### 1. Introduction

- 1.1 Revision History.** Record all revisions to the document.
- 1.2 Purpose and Scope.** State the purpose and scope of the document.
- 1.3 List of Definitions and Abbreviations**
- 1.4 List of Reference Documents.** List all reference documents, for instance:
  - The project description
  - The RASD
  - The Design document
  - The documentation of any tool you plan to use for testing

#### 2. Integration Strategy

- 2.1 Entry Criteria.**  
Specify the criteria that must be met before integration testing of specific elements may begin (e.g., functions must have been unit tested).
- 2.2 Elements to be Integrated.**  
Identify the components to be integrated, refer to your design document to identify such components in a way that is consistent with your design.
- 2.3 Integration Testing Strategy.**

Describe the integration testing approach (top-down, bottom-up, functional groupings, etc.) and the rationale for the choosing that approach.

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

**NOTE:** The structure of this section may vary depending on the integration strategy you select in Section 2.3. Use the structure proposed below as a non mandatory guide.

**2.4.1 Software Integration Sequence.** For each subsystem: Identify the sequence in which the software components will be integrated within the subsystem. Relate this sequence to any product features/functions that are being built up.

**2.4.2 Subsystem Integration Sequence.** Identify the order in which subsystems will be integrated.

If you have a single subsystem, 2.4.1 and 2.4.2 are to be merged in a single section. You can refer to Section 2.2 of the test plan example [1] as an example of what we expect.

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

For each step of the integration process identified above, describe the type of tests that will be used to verify that the elements integrated in this step perform as expected. Describe in general the expected results of the test set. You may refer to Chapter 3 and Chapter 4 of the test plan example [1] as an example of what we expect.

(NOTE: This is not a detailed description of test protocols. Think of this as the test design phase. Specific protocols will be written to fulfill the goals of the tests identified in this section.)

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

Identify all tools and test equipment needed to accomplish the integration. Refer to the tools presented during the lectures. Explain why and how you are going to use them.

Note that you may also use manual testing for some part. Consider manual testing as one of the possible tools you have available.

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

Based on the testing strategy and test design, identify any program stubs or special test data required for each integration step.

## **3 Bibliography**

[1] Integration Test Plan Example

<https://beep.metid.polimi.it/documents/3343933/5b3768d0-d949-4369-87e1-7a31b6943726>