Project Plan Document

Version 1.0

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Contents

1 Introduction

1.1 Purpose

The main purpose of this document is to analyze effort and cost for MyTaxiService. The analisys is performed using two different models:

- Function Points: to determine the size and the overall complexity of the project
- COCOMO II: to determine the effort and cost of the project

In the final part of the document are also included a Gantt diagram to visualize thepage general schedule of the project and a resource allocation diagram to show how the team members have been assigned to the variuos tasks.

1.2 Acronyms

- **RASD:** Requirements Analisys and Specification Document
- **DD:** Design Document
- **ITPD:** Integration Test Plan Document
- **AWT:** Approximate Waiting Time

1.3 References

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2 Function Point Analisys

2.1 Internal Logic Files

The system needs to store information about:

User
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Administrator
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Mtaxi driver
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Mtaxi
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

WorkTime Table
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Zone
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Location
This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Ride Request This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Booking Request This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

Queue This data entity consist in a small set of information, for this reason its complexity has been considered **SIMPLE**

$$ILFFunctionPoints = numberOfILF * 7 = 7 * 7 = 49$$

2.2 External Logic Files

The system needs to access data about:

External Traffic data
The structure of this data could be complex and could need a digest process, for this reason its complexity has been considered **MEDIUM**

$$ILFFunctionPoints = numberOfELF * 7 = 1 * 7 = 7$$

2.3 External Input

The system needs to process the following input:

Ride Request creation
This operation requires the user to perform few and simple actions and the system to

perform straightforward checks and data procedures, for this reason its complexity has been considered **SIMPLE**

Booking Request creation
This operation requires the user to perform few and simple actions and the system to perform straightforward checks and data procedures, for this reason its complexity has been considered **SIMPLE**

Booking Request editing
This operation requires the user to perform few and simple actions and the system to perform straightforward checks and data procedures, for this reason its complexity has been considered **SIMPLE**

User Login/Logout
This operation requires the user to perform few and simple actions and the system to perform straightforward checks and data procedures, for this reason its complexity has been considered **SIMPLE**

User Registration
This operation requires the user to perform few and simple actions and the system to perform straightforward checks and data procedures, for this reason its complexity has been considered **SIMPLE**

Mtaxi Driver Registration
This operation requires the Mtaxi driver to perform few and simple actions and the system to perform straightforward checks and data procedures, for this reason its complexity has been considered **SIMPLE**

Driver Notification
This operation requires the user to perform few and simple actions and the system(including the MYT device) more complex and numerous procedures, for this reason its complexity has been considered **MEDIUM**

Administrator Operations
This operation requires the administrator to perform few and simple actions and the system to perform straightforward checks and data procedures, for this reason its com-

plexity has been considered **SIMPLE**

$$EIFunctionPoints = numberOfSimpleEI * 3 + numberOfMediumEI * 4 = 7 * 3 + 1 * 4 = 25$$

2.4 External Output

This operation requires the system to perform complex calculations on traffic data and Mtaxi positions, for this reason its complexity has been considered **COMPLEX**

AWT Notification

Zone Change Notification
This operation implies that the system noticed an unbalanced distribution of Mtaxi in city zones; this last process requires complex and numerous calculations and data checks, this operation requires the system to perform complex calculations on traffic data and Mtaxi positions, for this reason its complexity has been considered **COMPLEX**

$$EOFunctionPoints = numberOfEO * 7 = 2 * 7 = 14$$

2.5 External Inquiry

User Profile Visualization
This operation the system to retrieve and elaborate data in a simple way, for this reason its complexity has been considered **SIMPLE**

User Ride Request Visualization
This operation the system to retrieve and elaborate data in a simple way, for this reason its complexity has been considered **SIMPLE**

User Booking Request Visualization
This operation the system to retrieve and elaborate data in a simple way, for this reason its complexity has been considered **SIMPLE**

Mtaxi Notification Visualization
This operation the system to retrieve and elaborate data in a simple way, for this reason its complexity has been considered **SIMPLE**

Mtaxi Accident Reports Visualization
This operation the system to retrieve and elaborate data in a simple way, for this reason its complexity has been considered **SIMPLE**

Mtaxi Bad Behavior Reports Visualization
This operation the system to retrieve and elaborate data in a simple way, for this reason its complexity has been considered **SIMPLE**

$$EIFunctionPoints = numberOfEI * 3 = 6 * 3 = 18$$

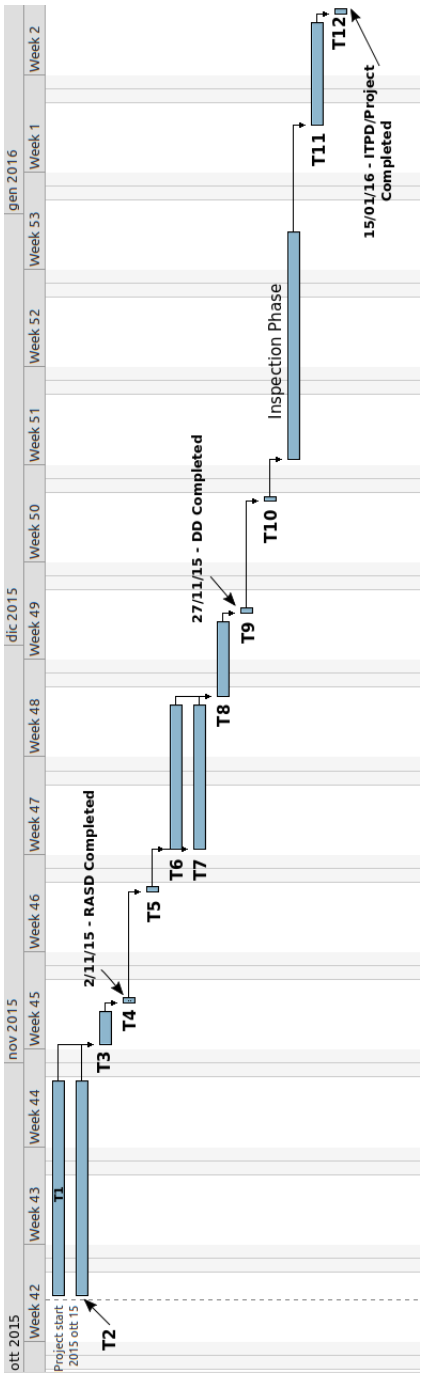
2.6 Summary

$$TotalFunctionPoints = 49 + 7 + 25 + 14 + 18 = 113$$
$$NumberofSLOC = JavaFPConversionFactor * TFP = 46 * 113 = 5198\ SLOCs$$

3 COCOMO II Analisys

4 Task Gantt Diagram

In this section is included a gantt diagram that represents the tasks in which the project is divided.



In the following paragraph is included an explanation of each task and of its duration in terms of work

- **T1:** Requirements Specification - Duration: 29h
- **T2:** RASD Diagrams Specification - Duration: 29h
- **T3:** Alloy Model Definition - Duration: 4h
- **T4:** RASD Revision - Duration: 2h
- **T5:** RASD Post-Presentation Revision - Duration: 2h
- **T6:** Architecture Specification - Duration: 18h
- **T7:** DD Diagrams Specification - Duration: 18h
- **T8:** Algorithms Definition - Duration: 2h
- **T9:** DD Revision - Duration: 2h
- **T10** DD Post-Presentation Revision - Duration: 2h
- **T11:** Integration Test Plan Definition - Duration: 8h
- **T12:** ITPD Revision: Duration: 1h