

SE2 Project Plan Document

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1 Introduction

1.1 Revision History

1.2 Purpose and Scope

1.2.1 Purpose

The purpose of this document is to provide an estimation of the size, the costs and the possible risks in the development context for the MyTaxiServiceSystem.

1.2.2 Scope

The scope of this document is the planning and allocation of resources designated at the MyTaxiService software development. This document represents a starting point in cost and effort estimation.

1.3 List of Definitions and Abbreviations

FP - Function Points : Function points measure a software project by quantifying the information processing functionality associated with major external data or control input, output, or file types.

RET - Record Element Type : A RET is a user recognizable sub group of data elements within an ILF or an EIF.

DET - Data Element Type A DET is a unique user recognizable, non-recursive (non-repetitive) field. A DET is information that is dynamic and not static. A dynamic field is read from a file or created from DETs contained in a FTR. Additionally, a DET can invoke transactions or can be additional information regarding transactions. If a DET is recursive then only the first occurrence of the DET is considered not every occurrence.

EI - External Input : Every unique user data or user control input type that enters the external boundary of the software system being measured

EO - External Output : Every unique user data or control output type that leaves the external boundary of the software system being measured.

ILF - Internal Logical File : Every major logical group of user data or control information that is generated, used or maintained by the software system

EIF - External Interface File : Files that are passed or shared between different software systems.

EQ - External Inquiry Every unique input-output combination, where input causes and generates an immediate output.

1.4 List of Reference Documents

- Assignment 1: Project Description
- MyTaxiServiceRequirement and Specification Analysis Document
- MyTaxiServiceDesign Document

2 Project Size and Cost Estimation

2.1 Project Size: Function Points

2.1.1 Complexity Weights

In the evaluation of the complexity weights we referred to this table:

Table 2. FP Counting Weights			
For Internal Logical Files and External Interface Files			
Data Elements			
<u>Record Elements</u>	<u>1 - 19</u>	<u>20 - 50</u>	<u>51+</u>
1	Low	Low	Avg.
2 - 5	Low	Avg.	High
6+	Avg.	High	High
For External Output and External Inquiry			
Data Elements			
<u>File Types</u>	<u>1 - 5</u>	<u>6 - 19</u>	<u>20+</u>
0 or 1	Low	Low	Avg.
2 - 3	Low	Avg.	High
4+	Avg.	High	High
For External Input			
Data Elements			
<u>File Types</u>	<u>1 - 4</u>	<u>5 - 15</u>	<u>16+</u>
0 or 1	Low	Low	Avg.
2 - 3	Low	Avg.	High
3+	Avg.	High	High

2.1.2 ILF: Internal Logical Files

The data model resides in the database, which is typically counted as a single ILF which is structured as follow:

Name	RET	DET	Complexity
Zone	1	6	Low
Location	1	3	Low
Taxi	1	5	Low
Requests and Reservations	1	8	Low
Account	1	8	Low
Logs	1	≤ 4	Low

2.1.3 EIFs (External Interface Files)

The system does not rely on files that resides on external systems

2.1.4 EIs (External Inputs)

Name	RET	DET	Complexity
Login / Logout / Registration	1: Account	≤ 8	Low
TaxiProbe	1: Location	3	Low
TaxiReservation input and processing	2 Account, Reservation, Zones, Taxi	16	High
DriverResponse	1	3 (ReqId + TaxiId + Accepted)	Low
DriverNotification	1	3 (ReqId + TaxiId + Completed)	Low
LocationUpdate	1: Location	3	Low
BackupDatabase	n.a.		Avg
RestoreDatabase	n.a		Avg

2.1.5 EIQs (External Inquiries)

Name	RET	DET	Complexity
ShowProfile	1	8	Low
ShowAccounts	1	8	Low
ShowTaxiList	2	16	Avg
ShowLogs	n.a.		Avg

2.1.6 EOs (External Outputs)

Name	RET	DET	Complexity
TaxiProbeResponse	1	5(Taxi + Location)	Low
Confirmation	1Reservation	8	Low
Notification	1Reservation	8	Low
DriverRequest	1Reservation	8	Low

2.1.7 UFPs (Un-adjusted Function-Points)

Name	Low	Avg	High	Total
ILF	6*7	0	0	42
EIFs	0	0	0	0
EIs	5*3	2 *4	1*6	29
EIQs	2*3	2*4	0	14
EOs	4*4	0	0	16
UFP	79	16	6	101

2.2 Effort and Cost Estimation: COCOMO

3 Tasks and Schedule

4 Resources Allocation

5 Risks and Management

6 Work Hours

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