**Project Plan**

**Group member:**

**Govinda**

**Juarni**

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**Shuying**

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# Introduction

Traffic-simulation Program is a project designed for Mr. George who is the responsible person for the traffic system in a city ProC#. As city is currently have lots of problem regarding traffic system, he wants to improve the status of the traffic by finding the good and adjustable traffic light system.

# Project Statement

## 2.1 Formal client

**Mr. George** who is responsible for the traffic system of the city

## 2.2 Project leader

**Govinda Poudel**

*Group Members:*Juarni, Wenhua, Shuying, Ruth and Melsese

## 2.3 Current situations

* Lots of vehicles and roads but less traffic light.
* Traffic lights doesn’t work well
* Lots of accidents occurring

**Assumption**: By making this application, he wants to check which kind of traffic system and traffic-timing suits in that city.

## 2.4 Project justification

* Mr. George wants to implement good traffic system in his city
* Also he wants to save money and try different types of traffic system in the city

But it was expensive to implement some software and some of them were not effective.

## 2.5 Project products

Simulation Programs

## 2.6 Projects Deliverables and Non-Deliverable

### 2.6.1 Deliverables

* Project Plan
* User Requirement Specification
* Functional Requirement(Use-Case)
* User Interface Requirement
* Non-functional Requirement
* Test Plan Document
* Design Document
* Class diagram
* Class and method description
* Sequence Diagram
* An application that works in windows operating system.
* Source code

### 2.6.2 *Non-Deliverable*

* Any developing tools or software other than application
* Database we used for the application

## 2.7 Project constraints

* An application will only runs on desktop or laptop with windows operating system released later than 2003.
* Visual studio 2012 C# will be used to make this application
* Application must help client to adjust the simulation as it is need.
* We have limited budget and time.

## 2.8 Projects Risks

2.8.1 **Problem to manage time**

During the mid-time we will have exams and some holidays. Also we have holidays for Christmas. May be due to this we may exceed the time limit.

*Effect on project*: It will create lots of problem. May be project will not be completed and client may not satisfied.

*Chances:*  there are some chances because we start somehow late.

*Possible solution:* We will try not to include those time as a working time in our project plan and will also try to finish before Christmas. Will give more time on it.

2.8.2 **May exceed limited budget**

Since we are new in this business world, there is possibility that we had approved some low budget than required.

*Effect on project*: Group members will not be satisfied and may be the deliverable may not satisfy the client.

*Chances:*  There is very low chances of occurring this problem.

*Possible solution: In the project plan it will be mentioned that* when price increase in the market happens the price may vary by amount of market fluctuation.

2.8.3 **Loss of file**

Since all works are done in computer, the project files may lost because of some problems on computer like hard disk crash.

***Effect:*** It will completely effect our work. We have to do all the work again.

***Chances:*** There is very less chances of occurring the problem

***Solution:*** we share all our work with group member and use cloud like SVN and Dropbox to store our work.

2.8.4 **All** **Requirements may not be mentioned in the first interview**

Client may increase the requirement of function of the application later.

***Effect:*** will affect our project as we have limited time.

***Chances:*** I see there is lot of chances that client will increase the requirement of project later after agreement.

***Solution:*** will make a MOSCOW list and approve from client which are must requirement for this project

# MOSCOW

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Products | M | S | C | W |
| Project Plan | X |  |  |  |
| User Requirement Specification   * User Interface * Use-case * Non-Functional Requirement | X  X  X |  |  |  |
| Test Plan Document | X |  |  |  |
| Design Document   * Class Diagram * Sequence Diagram of some Use-case * Sequence diagram of all Use-case | X  X |  | X |  |
| Simulation application   * Crossing with Pedestrian traffic(type 1) * Crossing without Pedestrian (type 2) * Use sensor on road * Traffic light for cars and pedestrian | X  X  X | X |  |  |
| Source code | X |  |  |  |
| Process Report   * Table of Content * Decision made / Project Requirement * Changes made in URS and Design-diagram | X  X | X |  |  |
| Manual |  |  | x |  |

# Project Phasing

**Phase 1**

**Phase 6**

**Phase 5**

**PHASE 4**

**Phase 3**

Hold an interview with a client

**PHASE 2**

Build the executable file

Analyze use-case and class-diagram

Prepare for testing plan

Study about test plan

Work on testPlan

Prepare test-plan for all use-cases

Get approval from mentor

Test plan is ready

Think about classes, functions we need

Design interface of application

Make process report and presentation

Get approval from client and mentor

Implement all functions

Make all classes, functions in C#

Check use-case & class diagram

Work on class diagram

Make sequence diagram for some use case

Final version of Design diagram

Get approval from mentor

Determine non/functional requirement

Think about the function of application

Work on use-case

Final version of URS

Get approval from client and mentor

First test all by us

Get more info about traffic system

Start working on project

Present the plan to client

Prepare project plan

**M 1 M2 M3 M4 M5 M6**

Project ready to start

Prepare tester to test the application

Fix some bugs as much as we can

Test the application

Running Application

Application ready to give to client

## First period:

#### Week 1:

Creating the project group

Reading the project workbook

Prepare the first version of project plan

#### Week 2:

Prepare the interview

Discussing the project plan

Discussing some details about the project

Make the project plan version 1

Get feedback form teacher

#### Week 3:

Discuss project plan and requirements.

Get feedback and user requirement from formal client.

Improve the first version

Make first version of URS

* Deliverable:

Project plan version1

#### Week 4:

Meeting with tutor and talk about the URS and project plan

Discussing the testplan

Make URS verson 2

Make the restplan version 1.

* Deliverable:

Project plan version 2

URS version 1

#### Week 5:

Meeting with the teacher talk about the testplan

Get the feedback of project plan & URS

Make the second version testplan

* Deliverable:

Final project plan

Testplan version 2

User requirement version 2

#### Week 6:

Meeting with the teacher and talk about the design

Get the feedback of testplan and user requirement from teacher

Deliverable:

Final user requirement

Final testplan

Class diagram

#### Week 7

Meeting with teacher talk about the design

Get feedback and improve the design

* Deliverable:

Final design document

## Second period

#### Week 1:

Get the feedback about design from teacher.

Discussing all the designing documents and prepare the application.

#### Week 2:

Working on the application

Decide some important function need to be completed for **first** prototype.

#### Week 3:

Working on the application

#### Week 4:

Showing the first prototype

Get the feedback for first prototype

Improve the first prototype

* Deliverable:

First prototype

#### Week 5:

Working on the application

Discussing the second version

Get feedback from teacher about the second version

#### Week 6:

Working on the application

Discussing the second version with the teacher

Improve the second version

Testing application

#### Week 7:

Preparing the presentation

Discussing the second version

Improve the second version

Write the process report

* Deliverable:

Final version of application

Final version of process report

#### Week 8:

Presentation and Final assessment

* Deliverable:

Presentation by all group members

# Management Plan

## 4.1 Money

Since we don’t any services from third party we only calculate wages for our group members and some other people like tester.

*Money will be spent in the following headings:-*

1. **Wages**

|  |  |  |  |
| --- | --- | --- | --- |
| **S.N.** | **Subject** | **Hours/member** | **Amount** |
| 1 | Labor charge (€10 per hour) | 168 | € 1680.00 |
| 2 | Testing(€10 per hour) | 10 | € 100.00 |

Labour charge is calculate for individual member so the for all member it will be

1680\*6 = 10080 euros and there will be around 3 tester so 3\*100 = 300 euros.

|  |  |  |  |
| --- | --- | --- | --- |
| 3 | Miscellaneous(for all member) |  | € 1620.00 |

**Total estimated expenses for the project**: € 12,000.00

**Profits:**

*There is profit in this project, but cannot be determined by the monetary values, this profit is the city will get a good traffic light system.*

## 4.2 Skills

The Skills requires for this project will divided to every members. Every member has to get involve and take responsible for this project. Furthermore, we guarantee a good communication among formal client and group member. So the project will be success as what the client wants. Project leader has taken under consideration the individuality and the passion of every member.

Based on the theoretical and practical knowledge of programming language c# that team members already get from school, our team members can guarantee that the final version of this project will deliver on time.

Some of the main skills are as follows:

* In the first phase of the project, the project leader should know how to handle an **interview** with the formal clients, and what necessary things are there to be discussed.
* Every Group member should have skill of **working in group** and following the command/suggestions of leader.
* To make **application**, members must be familiar with Visual Studio C# and at least can do some drawing program in C#.
* For **URS**, members must have good knowledge about designing user Interface and making Use-cases
* For **Design Document**, member must have good knowledge about classes, methods, attributes and properties.
* For **Testplan,** everybody should know how use-case works.

## 4.3 Quality

To make the good quality of the project, our team members always control the development of the task as requirements of the client. Start by making Project Plan, User Requirements Specification, and Design document. To make sure that the project is going well then the product will be tested by using the testplan developed in the research, analysis phase and agreed with the client.

## 4.4 Information

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | Project Plan | URS Report | Design Document | Test Plan Report | Prototype Report | Contract | Meeting Agenda | Minutes | Project Report |
| Formal Client | R, A | A | A | A |  | R |  |  | A |
| Project Leader | Dr, S | S | S | S |  | S |  |  | S |
| Project Team | Di | Di | Di | Di | Di | Di |  | Di, A | Di |
| Chairman |  |  |  |  |  |  | S |  |  |
| Secretary | Ar | Ar | Ar | Ar | Ar | Ar, Dr |  | Ar, Dr,S | Ar |
| Graphic Designer |  | Dr | Dr |  |  |  |  |  |  |
| Software Designer |  |  |  | Dr | Dr |  |  |  |  |
| Developers |  |  |  | Dr | Dr |  |  |  |  |

Legend: Dr Draw up

Di Discuss

A Approve

S Send

R Receive

Ar Archive

## 4.5 Time

In order to do plan efficiently, the time frame depends on the phases of the project. Time frame will help group members to know clearly how much time we have to spend for deadline of the project.

The first three phases are scheduled to take place in the first block. The initiation phase is scheduled to take 3 weeks, from 27th of August 2013 until the 14th of September 2013. The research and analysis phase is going to take 3 weeks, from the 15th of September 2013 until the 5th of October 2013. The effort put in the design phase is going to last for 3 weeks, from the 5th of October 2013 until 25th of October 2013.

The last three phases are scheduled to take place in the second block. The implementation will last for 4 weeks, from the 11th of November 2013 until the 7th of December 2013, while the testing and maintaining will last for 2 weeks, between 8th of December 2013 and 21th of December 2013. The final phase, the closing, is going to last for 2 weeks, from 21th of December 2013 until the 4th of January 2014.

**Client**

George

## 4.6 Organization

**Project Leader**

Govinda

**Member**

Shuying

**Member**

Juarni

**Member**

Wenhua

**Mentor**

Gestel, Bert

**Member**

Melese

**Member**

Ruth