Software Requirements Specification (SRS) for SmartCar Project

*Baseline version 0.2*

*Issued on November 7, 2014*

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# 

# Change History

|  |  |  |  |
| --- | --- | --- | --- |
| **Version** | **Date** | **Author** | **Changes** |
| 0.1 | June 20, 2014 | Group | Initial Version |
| 0.2 | November 7, 2014 | Group | SRS |

# Document Approval

The following Software Requirements Specification has been accepted and approved by the following :

|  |  |  |  |
| --- | --- | --- | --- |
| **Name** | **Title** | **Date** | **Signature** |
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# Chapter 1

# INRODUCTION

## 1.1 Purpose

The purpose of this project is to make people could communicate with others easier, and faster, and self setting IP Address, therefore distance won’t be a matter.

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## 1.2 Scope

The scope in this project are how the the application send a network communication, and how it encrypt and decrypt.

## 1.3 Definitions, Acronyms, and Abbreviations

* SRS: Software Requirement Specifications
* GUI: Graphical User Interface.
* JRE: Java Runtime Environment.
* Use Case: Methodology used in system analysis to identify, clarify, and organize system requirements.
* Class Diagram: An illustration of the relationships and source code dependencies among classes in the Unified Modeling Language (UML).
* Sequence Diagram: Show the interactions between objects in the sequential order that those interactions occur.
* State Diagram: Diagram used in computer science to describe the behavior of a system considering all the possible states of an object when an event occurs

# 1.4 References

* Meyer, Bertrand. Object-Oriented Software Construction 2nd Edition. California : ISE. Inc, 1997.
* Farrel, Joyce. Java Programmming 6th Edition. Boston : Cengage Learning, 2012.

# 1.5 Overview

The first section of the SRS introducing what are our project that is a Chatting application, Second section of the SRS discussing about our project description, Third section of the SRS discussing specific requirement about our project. Fourth section of the SRS discussing about our Analysis model and the last section discussing about change management process.

# Chapter 2

# GENERAL DESCRIPTION

## 2.1 Product Perspective

The Client and users will be given and the client and user can access the program and can see the smart car simulation.

## 2.2 Product Functions

The smart Chatting Application program will run The program will run a Chatting Room with some details like set IP Addres, etc.

## 2.3 User Characteristics

General Users / Guest: They will be in a position to permit access to the users in the Internet and acknowledge their account status.

Administrators: They are the core users and are able to add new users to the system and permit them to access the Internet resources. They can also view in real time what a user is performing right now. They can also get the overall report of the user sessions.

## 2.4 General Constraints

* Chatting application program will start automatically after the user execute the Chatting Application program.
* Only Administrator and group members can control and change the Chatting application program.

## 2.5 Assumptions and Dependencies

* GUI is not the top priority
* Using International System of Units
* IP Address would be set up manually.
* Wrong IP will cause connection issues

# Chapter 3

# SPECIFIC REQUIREMENTS

## 3.1 External Interface Requirements

## 3.1.1 User interface

Chatting room with IP Address setting manual

## 3.1.2. Hardware interfaces

The user will need a laptop / netbook / desktop computer that runs windows operating systems and have installed JRE in their laptop / netbook /desktop.

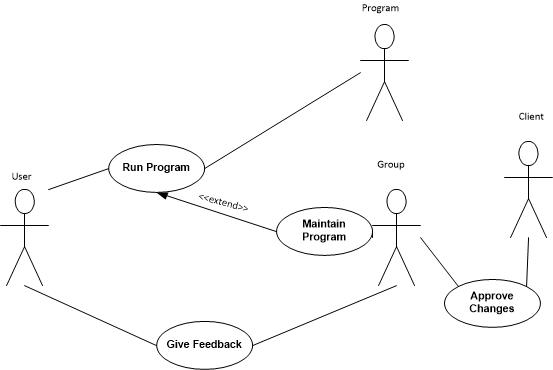
## 3.1.3. Software interfaces

The user must have installed the Chatting application software.

## 3.2 Functional Requirements

* The Chatting Application program runs without error.
* The smart car simulation program do simulate responsiveness of its sensor.

## 3.3 Use Cases

**

## 3.4 Classes/Objects

## 3.5 Non-Functional Requirements

* Using International System of Units

## 3.6 Design Constraints

* 2D Graphics.
* OOP Methodology
* Java Programming Language
* Using Graphical User Interface

# Chapter 4

# ANALYSIS MODELS

## 4.1 Sequence Diagrams

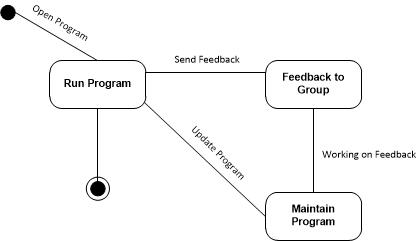
## 4.1.1 Run Program

## 4.1.2 User Feedback

## 4.1.3 Maintain Program

## 4.1.4 Client Decision

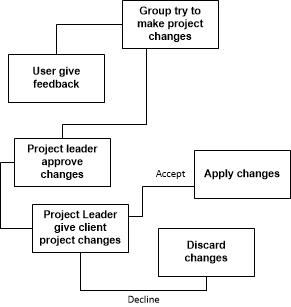
## 4.2 State Diagrams



# Chapter 5

# CHANGE MANAGEMENT PROCESS

## 5.1 Process



## 5.2 Actor

The one who responsible to change the SmartCar program are only group member.

## 5.3 Approval

Project changes will be approve by project leader first if the changes are error-free and sufficient, then the project leader will give the changes to the client. If the client approve than the project can change. If the client approve than the changes will be discarded

# Appendices

## Appendix 1

Meyer, Bertrand. Object-Oriented Software Construction 2nd Edition. California : ISE. Inc, 1997.

## Appendix 2

Farrel, Joyce. Java Programmming 6th Edition. Boston : Cengage Learning, 2012.

## Appendix 3

Hurby, P. (2013). Download Visio Stencil and Template for UML 2.5. Retrieved November 13, 2014, from http://www.softwarestencils.com/uml/