

# Group Assignment

*by* Xing Hang Liao

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## Faculty of Engineering & Computing

Course: Bachelor of Software Engineering (BSE)

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Module Leader: Ms Tseu Kwan Lee

Coursework: Requirements Elicitation & Analysis

Report for Smart Parking System (Task 1 & Task 2)

Name: Khoo Sze Zhe (B0985)

Carmen Teo (B0948)

Liao Xing Hang (B1475)

## Table of Contents

1. REQUIREMENTS ELICITATION.....	1
1.1    Stakeholders and User Classes .....	1
1.2    Ranking of the Stakeholders .....	2
1.3    Elicitation Techniques Used.....	2
1.3.1    Interviews .....	2
1.3.2    Questionnaire.....	5
2. REQUIREMENTS ANALYSIS .....	7
2.1    User Requirements .....	7
2.2    Overall Functions of the System .....	7
3. REFERENCES .....	9
3.1    References.....	9

## 1. REQUIREMENTS ELICITATION

### 1.1 Stakeholders and User Classes

This section will identify the stakeholders required for the Smart Parking System. The stakeholders we have identified are as follow:

- Motorist
- Management Team: Managing Director and Accountant
- Maintenance Team: System Administrator and Technician

#### **Motorist**

The Smart Parking System is specifically built for these motorists for their convenience. Since they are the ones who drive and park their vehicles daily, they would definitely need some convenient way to search for parking when entering the parking basement of shopping malls and offices. Hence, they are basically our main target audience of this Smart Parking System.

#### **Management Team**

The management team consists of the managing director and accountants. Since their companies are the ones who are buying our system, they are certainly one of our stakeholders as well. The managing director and accountants are categorised as a stakeholder group because they share certain common traits such as managing company's business objective and the entire operation of the company. They are not the ones directly using the system, but their opinions are invaluable to develop the system.

#### **Maintenance Team**

The system administrator and technician are categorised into the same stakeholder group, which is the maintenance team. This is because both of them are the ones upgrading, fixing and maintaining the system after it has been developed. As such, they will need to know all the functions and relevant information about the system as well.

## 1.2 Ranking of the Stakeholders

This section will rank the stakeholders according to their priorities and rationale. Table 1 below shows the stakeholder's ranking.

Table 1: Ranking of the Stakeholders

Stakeholders	Rank	Rationale
Motorist	High	They are the ones who use the system on a daily basis.
Maintenance Team	Medium	They are required to maintain and fix the system during system breakdown.
Management Team	Medium	They are the ones who paid for the system, so we have to develop the system based on their requirements as well.

## 1.3 Elicitation Techniques Used

44  
This section will discuss about the elicitation techniques used to gather the requirements for the Smart Parking System.

Requirements elicitation is a process to discover the current problems, along with the requirements and solutions to solve the problem. Hence, elicitation techniques are needed for us to achieve that [1]. The following are the elicitation techniques used to gather the stakeholder requirements:

- Interview
- Questionnaire
- Use Case

### 1.3.1 Interviews

Interviews are very commonly used for requirements elicitation, as it is one of the best ways to get accurate answers directly from the stakeholders because it involves actual interaction with the stakeholders [2]. For this interview, two different stakeholders are targeted, which are the motorist and the management team of the shopping mall. Their answers and requirements are described using the user stories technique [3].

## **Motorist**

We conducted a small and quick interview with a motorist that drives to shopping malls regularly. Figure 1 below shows the interview questions for the motorist.

### **Interview Questions for Motorist**

1. What do you think about the current parking system?
2. What do you think should be improved on the current parking system?
3. What is the main feature you would like to have in the Smart Parking System?
4. On a scale of one to five, five being the most important, how would you rate the Smart Parking System?
5. What do you hope to achieve from the Smart Parking System?

**Figure 1: Interview Questions for Motorist**

The motorist has answered all the questions accordingly and the requirements will be described in a user story. Figure 2 below shows the user story of the motorist.

“As a frequent visitor of the shopping malls, I always drove myself there. When entering the parking basement, sometimes I could not reach the parking ticket machine to get the ticket. This is because I am a very short person with very short hands, and this has definitely caused me troubles at times. Besides, I could not find any parking at all even on weekdays. Maybe there is a parking spot somewhere but I sure am unable to find it with all the cars and pillars blocking my sight. There are a few things that could be improved for the current parking system in my opinion. First off, I hope that there is some system that could be used to replace the parking ticket machine so that I do not need to have such a hard time grabbing the ticket from it. Besides, I also hope that there is some sort of navigation that could guide me to the available parking spots. In such a case, I would definitely like the shopping mall to have a Smart Parking System for the convenience of me and other customers. I would like the system to just scan my car or car plate so that I do not need to get a ticket from the ticket machine. When I exit the shopping mall, I do not have to go to the autopay machine to pay my tickets. Instead, the system should probably deduct the money from my e-wallet. I would also like the system to navigate me to any available parking spots in the shopping mall, and alert me when there are no parking spots available. I would think that the system is very important and would rate a five for its importance. The features I mentioned before are what I would hope to achieve from the Smart Parking System, and I would hope that it could make my life easier when looking for a parking spot in shopping malls.”

**Figure 2: User Story of the Motorist**

## **Management Team**

We have also conducted a quick interview session with the management team of a shopping mall. Figure 3 shows the questions used to interview the management team.

### **Interview Questions for the Management Team**

1. In your opinion, what are the essential features of the Smart Parking System?
2. Why do you think these features are important?
3. On a scale of one to five, five being the most important, how would you rate the Smart Parking System?
4. What do you hope to gain from this system?

33  
Figure 3: Questions Used to Interview the Management Team

Figure 4 below shows the user story for the requirements of the management team.

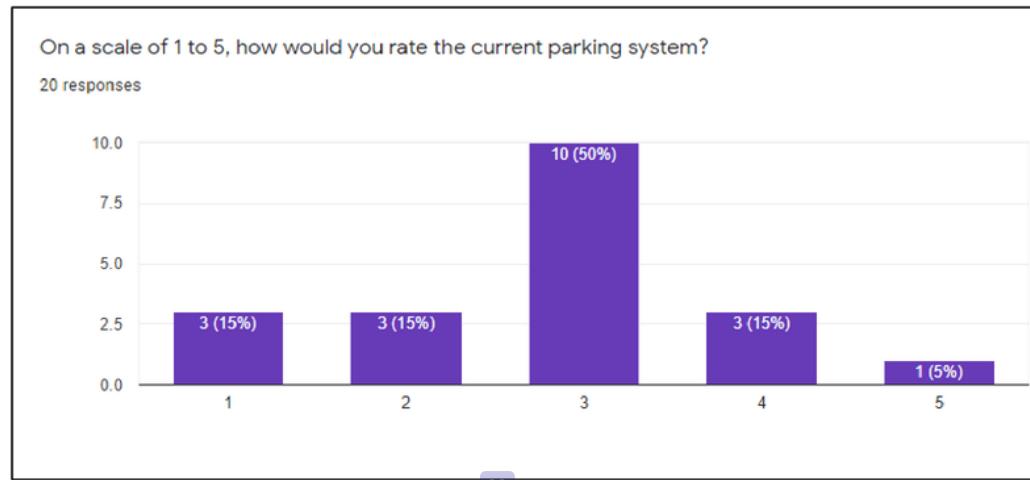
"In our honest opinion, we think that what a Smart Parking System should definitely have the auto pay feature. Basically, the system should use an e-wallet or bank account that links with the system so that the users do not have to use the parking tickets to pay, as the application could automatically pay when the customers leave the parking basement. Apart from that, it should also have an ability to display available parking spots and navigate the users to those spots. These features are certainly important for the Smart Parking System to work. When people heard about any smart system, they would think of 'automatic', and automatic-related features are usually fast, easy and convenient. Therefore, having the auto pay feature is important to save the time and energy of the customers when they park inside our shopping mall. Besides, they do not have to line up at the auto pay machine when the system could just directly deduct it from their e-wallet as they leave the parking basement. As for the parking spot navigation, we found out that a lot of customers tend to get lost in the parking basement and could not see where the available parking spots are. They could just spend around 15 minutes to 30 minutes in the parking basement just to look for a parking spot. Hence, this feature is relatively important to save time for the customers when looking for a parking spot as well. We have emphasised on how important the system is before, so we would rate the importance of the system as five. We also hope that the system could generate weekly reports for the analysis of our team in terms of business operations and such. But most importantly, we hope that this system could make life easier for the customers when looking for parking, so that they would come to our shopping mall more frequently. Basically, we hope to gain more customers after this system has been implemented."

Figure 4: User Story of the Management Team

### 1.3.2 Questionnaire

The other elicitation technique that used is the questionnaire technique. Questionnaire is another common elicitation technique used to gather system requirements from a larger group of stakeholders [4]. Our questionnaire consists of both close-ended and open-ended questions, and the questionnaire questions will be included in the Appendix section of the SRS document. We have gotten about 20 responses for our questionnaire, and the requirements and answers gathered will be described in this section.

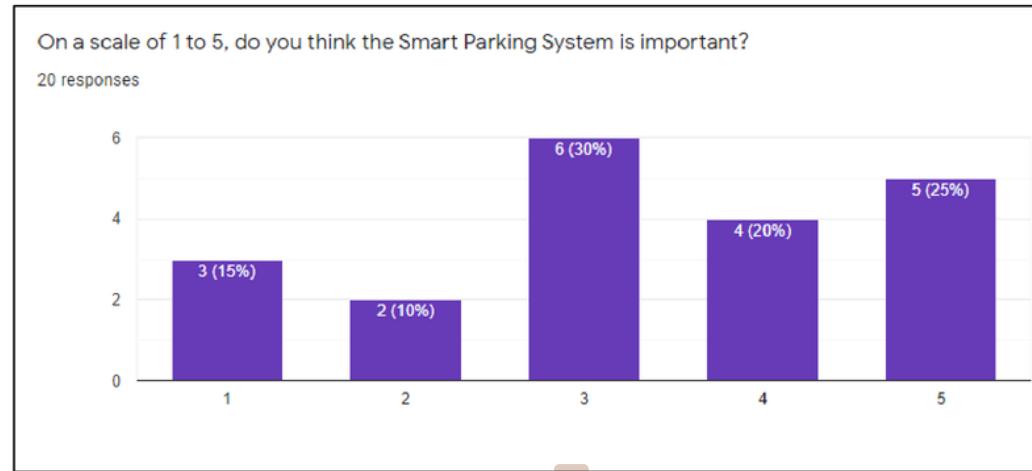
For our questionnaire, we asked a few questions to see the users' thoughts on the current parking system.



23 Figure 5: Users Rating on the Current Parking System

42 Figure 5 above shows users' rating on the current parking system. According to the graph in the figure above, quite many users are certainly not contented with the current system. The users mentioned that the current system is not convenient enough as it takes too long to look for parking or there is no parking at all. Besides, they also mentioned that no one actually fix the parking machine when it is on a breakdown. To conclude, the current parking system is extremely inconvenient for the users as they tend to waste time looking for parking or using the parking ticket machine.

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There were also questions regarding the Smart Parking System in the questionnaire for the users to answer.



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**Figure 6: Votes for the Importance of the Smart Parking System**

23  
Figure 6 above shows the graph for the rating of the smart parking system's importance. As you can see, more people think that this system is important compared to the current system. The users mentioned that they would like the system to locate available parking spots for them so that they could reduce time wasted to search for parking spots. Besides, they also mentioned that they would like certain automatic pay system so that they do not need to pay at the ticket machine. The users also mentioned that since it is very troublesome to find a parking ticket machine, they hope that the system could scan their license plate and pay automatically. Besides, they would also like a GPS-like function to locate a parking spot and a light to indicate the parking spot as well. To conclude, the users hope to seek convenience and more timesaving methods from the Smart Parking System.

## 2. REQUIREMENTS ANALYSIS

### 2.1 User Requirements

This section will discuss and analyse the user requirements gathered.

After performing the requirements elicitation, there are a few user requirements that have been identified. The user requirements identified are as follow:

- The system shall be able to scan the user's license plate.
- The system should allow users to pay their parking fee using the e-wallet.
- The system should allow the users to locate available parking spots.
- The system should allow the users to book a parking spot.
- The system should display the parking spot's availability message.
- The system should be able to generate weekly report.
- The system should be able to link to a third party e-wallet.
- The system should allow the management team to manage parking fee.
- The system should allow the management team to manage parking space.

### 2.2 Overall Functions of the System

This section will include an informal diagram to depict the overall functions of the system. For the diagram, the use case diagram will be used. This is because the use case itself is able to graphically present the interactions between the users and the system clearly [5].

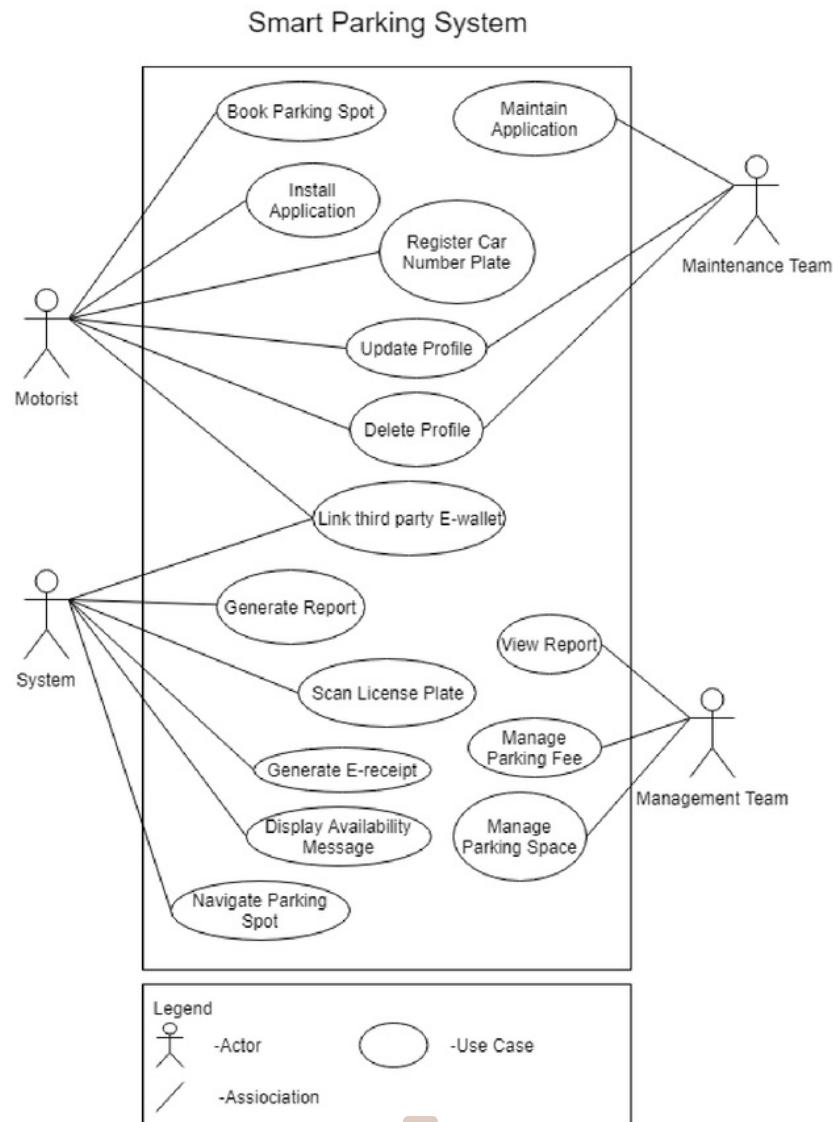


Figure 7: Use Case of the Smart Parking System

19

Figure 7 shows the use case diagram of the Smart Parking System, and the overall functions of the system are shown in this diagram.

### 3. REFERENCES

#### 3.1 References

- [1] G. Kotonya and I. Sommerville, "Elicitation techniques," in *Requirements Engineering - Processes and Techniques*, Chichester, John Wiley & Sons, 1998, p. 61.
- [2] G. Kotonya and I. Sommerville, "Interviews," in *Requirements Engineering - Processes and Techniques*, Chichester, John Wiley & Sons, 1998, pp. 62-64.
- [3] S. W. Ambler, "User Stories: An Agile Introduction," Agile Modeling (AM), 11 November 2009. [Online]. Available: <http://www.agilemodeling.com/artifacts/userStory.htm>. [Accessed 25 November 2019].
- [4] L. Brandenberg, "What Questions Do I Ask During Requirements Elicitation?," Bridging the Gap, 30 August 2010. [Online]. Available: <https://www.bridging-the-gap.com/what-questions-do-i-ask-during-requirements-elicitation/>. [Accessed 27 November 2019].
- [5] M. Rouse, "use case," TechTarget, 15 April 2007. [Online]. Available: <https://searchsoftwarequality.techtarget.com/definition/use-case>. [Accessed 27 December 2019].

# Software Requirements Specification

for

## Smart Parking System

Version 1.0 approved

Prepared by Khoo Sze Zhe, Carmen Teo and Liao Xing Hang

First City University College

## Table of Contents

<b>1</b>	<b>Table of Contents .....</b>	<b>ii</b>
<b>1.</b>	<b>Introduction.....</b>	<b>1</b>
1.1	Purpose .....	1
1.2	Document Conventions .....	1
1.3	Intended Audience and Reading Suggestions .....	1
1.4	Product Scope .....	2
1.5	References .....	2
<b>2.</b>	<b>Overall Description .....</b>	<b>3</b>
2.1	Product Perspective .....	3
2.2	Product Functions .....	3
2.3	User Classes and Characteristics .....	3
2.4	Operating Environment .....	5
2.5	Design and Implementation Constraints .....	5
2.6	User Documentation .....	5
2.7	Assumptions and Dependencies .....	6
<b>3.</b>	<b>External Interface Requirements .....</b>	<b>7</b>
3.1	User Interfaces .....	7
3.2	Hardware Interfaces .....	7
3.3	Software Interfaces .....	7
3.4	Communications Interfaces .....	7
<b>4.</b>	<b>System Features .....</b>	<b>8</b>
4.1	Application- Login .....	8
4.2	Application- Registration .....	8
4.3	View User Profile .....	9
4.4	Logout .....	9
4.5	Ticketless Parking Function .....	10
4.6	Parking Navigation .....	11
4.7	Reservation System .....	11
<b>5.</b>	<b>Other Non-functional Requirements .....</b>	<b>12</b>
5.1	Performance Requirements .....	12
5.2	Safety Requirements .....	12
5.3	Security Requirements .....	12
5.4	Software Quality Attributes .....	12
5.5	Business Rules .....	12
<b>6.</b>	<b>Other Requirements .....</b>	<b>12</b>
<b>Appendix A: Glossary .....</b>		<b>13</b>
<b>Appendix B: Analysis Models .....</b>		<b>14</b>

30

## 1. Introduction

### 1.1 Purpose

The purpose of this document is to provide information regarding the Smart Parking System. This document will explain about the functionality of the system and the various features that it will provide. However, this document does not provide the user's manual for the customer as the manual will come along with the system application when it is developed.

### 1.2 Document Conventions

**Bold:** The chapter, subchapter or title of this report. Some bold text is also used to emphasize on the important points.

**Italic + Bold:** Italic texts are used to describe the figures and tables.

**Bold + Underline:** Glossary terms and certain important points.

**Different Headings:** To differentiate different subchapters.

22

### 1.3 Intended Audience and Reading Suggestions

This Software Requirement Document is intended for: -

- Testers who wish to learn more about this system.
- Software developers as they need to know about the requirement to program the system.
- Project manager who needs to plan the process of developing the system.
- The management team who would like to understand more about the system, as they are the ones planning the business objectives.
- Testers who wish to learn more about this system.
- Software developers as they need to know about the requirement to program the system.
- Project manager who needs to plan the process of developing the system.
- The management team who would like to understand more about the system, as they are the ones planning the business objectives.

## 1.4 Product Scope

### 1.4.1 Benefits

The benefits of applying smart parking system are: -

1. Reduced traffic: Traffic flow is more efficient as cars are guided to an available parking spot, thus reducing traffic jam.
2. Efficient parking system: Users could locate vacant parking spots easier, and faster, thus saving time and effort.
3. Increased safety: Each parking lot is monitored by a camera that contains real-time IoT data that can help record and track down any suspicious activity or people. Along with that, the license plate recognition camera is able to gather footage to assist in any illegal activity noticed [1].
4. Decrease cost: Management can reduce manual labour and cost due to automated system applied.

### 1.4.2 Objectives

The objective of this system is to minimise the customers' time spent to look for parking while increasing the customers' time spent on shopping.

### 1.4.3 Goal

The goal of this system is to increase the amount of customers that visits the shopping malls.

## 1.5 References

- [1] Admin, "10 Benefits of a Smart Parking Solution," Plasma, 27 June 2016. [Online]. Available: <https://www.plasmacomp.com/blogs/benefits-of-smart-parking-solution/>. [Accessed 2 December 2019].<sup>18</sup>
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- [3] sharmajai007js, "This prevents misuse unauthorized access and hacking," Course Hero, 11 September 2019. [Online]. Available: <https://www.coursehero.com/file/pkd79d/This-prevents-misuse-unauthorized-access-and-hacking-of-the-product-24-General/>. [Accessed 5 December 2019].<sup>21</sup>
- [4] G. Kotonya and I. Sommerville, "Non-functional Requirements," in *Requirements Engineering - Processes and Techniques*, Chichester, John Wiley & Sons, 1998, p. 187.

## **10 2. Overall Description**

### **2.1 Product Perspective**

Smart Parking System is a system that will help users in finding a vacant parking spot more efficiently. Smart Parking System is a replacement for Pay On Foot System, which is a system where an auto pay machine are conveniently located within the parking lot [2]. With the current IoT technology, it is shown that Smart Parking system can replace the traditional pay system as it can go beyond the constraint of the current payment methods by ramping the payment method, which is via the parking meter. This improved system has an inbuilt e-wallet where the users can top-up money into it or link it to other third party e-wallet company with a touch of a few buttons and automatically pay for the parking fee without having to go to an auto pay machine.

## **22 2.2 Product Functions**

The product functions of this system are mentioned below: -

1. An app function that allows access to parking lot's camera to view the customer's car.
2. An auto gate that allows the customer to enter or exit the parking lot.
3. A variety of third party e-wallet company that the system can link to such as Touch 'n Go eWallet.
4. App function that display available parking spots.
5. Display lights to indicate the parking availability.
6. Navigate the parking spot for the users.

## **37 2.3 User Classes and Characteristics**

### **Motorist**

The Smart Parking System is specifically built for these motorists for their convenience. Since they are the ones who drive and park their vehicles daily, they would definitely need some convenient way to search for parking when entering the parking basement of shopping malls and offices. Hence, they are basically our main target audience of this Smart Parking System.

### **Management Team**

The management team consists of the managing director and accountants. Since their companies are the ones who are buying our system, they are certainly one of our stakeholders as well. The managing director and accountants are categorised as a stakeholder group because they share certain common traits such as managing company's business objective and the entire operation of the company. They are not the ones directly using the system, but their opinions are invaluable to develop the system.

### **Maintenance Team**

The system administrator and technician are categorised into the same stakeholder group, which is the maintenance team. This is because both of them are the ones upgrading, fixing and maintaining the system after it has been developed. As such, they will need to know all the functions and relevant information about the system as well. Table 1 below shows the ranking of the stakeholders.

**Table 2: Ranking of the Stakeholders**

<b>Stakeholders</b>	<b>Rank</b>	<b>Rationale</b>
Motorist	High	They are the ones who use the system on a daily basis.
Maintenance Team	Medium	They are required to maintain and fix the system during system breakdown.
Management Team	Medium	They are the ones who paid for the system, so we have to develop the system based on their requirements as well.

## 2.4 Operating Environment

The operating environment can be grouped into 2 categories, which are the hardware environment and software environment.

Hardware environment consists of peripherals such as parking lot or parking basement, auto gate, sensors such as camera, parking spot detector, and lasers.

Along with that, software environment that is implemented in the application are MySQL SQL 11.0 database, client and server system, any stand-alone operating system such as Microsoft Windows or Linux, and an app developing and designing which is Java based.

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## 2.5 Design and Implementation Constraints

There are some constraints for this system when comes to design and implementation, which are: -

1. The database used is MYSQL SQL 11.0 and above and not other database.
2. Language used is Java when comes to developing or designing the application for the user.
3. Security and privacy issues are controlled under Data Privacy Act, which are Personal Data Protection Act 2010 for Malaysia or EU's Data Protection Directive 95/46/EC for European Union.<sup>39</sup>
4. Operating system used for developing is a stand-alone Operating System such as MacOS or Microsoft Windows whilst the operating system needed to access the application by the user is the embedded Operating System such as Iphone Operating System (iOS) or Symbian.
5. Whether the hardware used can be supported in a specific place such as shopping malls or offices.

7

## 2.6 User Documentation

-The application would provide a help manual for users.

-Once users install and register on the app, the system would provide a guide or tutorial for first-timers.

-As for existing users, a help button can be found in the application as a tooltip.

## 2.7 Assumptions and Dependencies

- Third Party E-wallet as this system depends on the out-sourced E-wallet company for the user to complete payment.
- The database and server should be able to support the application despite the heavy network traffic. The server and the database should have a power backup and data backup when things are undesirable. Along with that, the Smart Parking System should be compatible with most of the operating system available in the market [3].
- IDE used, which is java is open source IDE that is easily available in the market.
- MYSQL database, which is an open source database system.

### **5 3. External Interface Requirements**

#### **3.1 User Interfaces**

UI-1: Provide user interface to view the parking lot map.  
3

UI-2: Provide user interface to log into the application.  
3

UI-3: Provide user interface to register with the application.  
3

UI-3: Provide user interface to link with third party eWallet.

#### **9 3.2 Hardware Interfaces**

HI-1: Minimum 1GHz processor for system.

HI-2: 1GB RAM or more.

HI-3: Hard disk space of 16GB or more .

HI-4: Smartphone with touchscreen.

#### **3.3 Software Interfaces**

- Windows XP or above.
- MYSQL 11.0 or above.
- Android 5 or above.
- IOS 6 or above.

#### **3.4 Communications Interfaces**

16  
CI-1: The system shall use HTTP protocol for communication over the internet.

CI-2: The system shall use TCP/IP protocol for communication over the intranet.

## 4. System Features<sup>2</sup>

### 4.1 Application- Login

#### 4.1.1 Description and Priority

The app would provide a login page for the user to login.

High Priority – Ranking: 4

3

#### 4.1.2 Stimulus/ Response Sequence

Stimulus: User opens the application.

Response: Display Login page.

27

Stimulus: User input username and password and click on the login button.

4

Response: MySQL Database will validate the username and password. The user is able to login if they entered the correct username and password and vice versa, they are then restrained from login in if neither the username nor password is correct.

#### 4.1.3 Functional Requirement

11

FR-1: The system shall allow the user to log into the application if the entered username and password are correct.

2

FR-2: The system should be able to validate the entered username and password.

### 4.2 Application- Registration

#### 4.2.1 Description and Priority

The application will redirect the users to a registration page once they click on the “register now” button.

High Priority – Ranking: 3

7

#### 4.2.2 Stimulus/ Response Sequence

Stimulus: The user clicks on the “register now” button.

Response: The user will be directed to the register page.

Stimulus: The user fills in their information and click “register”.

Response: Information is validated. If valid, the information is recorded into the database.

#### 4.2.3 Functional Requirement

27

FR-1: The system shall allow the user to register for an account.

26

FR-2: The system shall be able to validate the information using data validation.

FR-3: The system is able to record the information into the system’s database.

2

### 4.3 View User Profile

#### 4.3.1 Description and Priority

The user should be able to view their account profile.

Medium Priority – Ranking: 7

2

#### 4.3.2 Stimulus/Response

Stimulus: User clicks on User Profile.

Response: Display user profile page.

24

#### 4.3.3 Functional Requirements

2

FR-1: The system should allow the user to view their user profile.

### 4.4 Logout

#### 4.4.1 Description and Priority

The user should be able to log out from the application.

High Priority – Ranking: 5

#### <sup>2</sup> 4.4.2 Stimulus/Response

Stimulus: User clicks on Logout button.

Response: User is logged out and the login page is displayed.

#### 4.4.3 Functional Requirements

<sup>11</sup> FR-1: The system should allow the user to log out from the system.

### 4.5 Ticketless Parking Function

#### <sup>7</sup> 4.5.1 Description and Priority

This automated parking function scans your license plate and register the current time.

High Priority – Ranking: 1

#### <sup>25</sup> 4.5.2 Stimulus/Response Sequences

Stimulus: User's vehicle stops near auto gate at entrance.

Response: Scanners scans license plate then sends data to database and opens auto gate.

Stimulus: User's vehicle stops near auto gate at exit.

Response: System scans license plate and deducts money from e-Wallet depending on time spent.

#### <sup>15</sup> 4.5.3 Functional Requirements

FR-1: The system shall be able to scan the license plate.

FR-2: The system should recognise different position of license plate.

<sup>29</sup> FR-3: The system should send scanned data to the database.

FR-4: The system shall have a precise clock.

FR-5: The system should generate an e-receipt.

## 4.6 Parking Navigation

### <sup>4</sup> 4.6.1 Description and Priority

This feature would display the map of the parking through the mobile application to highlight available parking slots.

High Priority – Ranking: 2

### <sup>5</sup> 4.6.2 Stimulus/Response Sequences

Stimulus: User log into application.

Response: App displays homepage.

Stimulus: User clicks on map button.

Response: Application displays map or parking lot and highlights empty lots.

### <sup>15</sup> 4.6.3 Functional Requirements

FR-1: The application shall connect with the navigation system.

FR-2: The navigation system should update availability of parking spot every 20 second.

FR-3: The navigation system should only be available after a user entered the parking lot.

## 4.7 Reservation System

### 4.7.1 Description and Priority

Users may use the navigation system to book a parking spot through the mobile application.

Medium Priority – Ranking: 6

### <sup>25</sup> 4.7.2 Stimulus/Response Sequences

Stimulus: User clicks on an empty parking slot in mobile application.

Response: System sends signal to LED billboard on the empty slot to display user's license plate and marks it unavailable on the app for other users.

### <sup>24</sup> 4.7.3 Functional Requirements

FR-1: The system should allow user to book an available parking spot.

FR-2: The system should only allow one reserved slot at a time.

FR-3: The user should only be able to send reserve request every 30 seconds.

35

## 5. Other Non-functional Requirements

Non-functional requirements usually does not directly affect the functionality of a system, as these are restrictions on the developing product and its development process, as the product must meet most of the external constraints that they specify [4].

4

### 5.1 Performance Requirements

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PE-1: Scanning license plate should take no longer than 3 seconds.

4

PE-2: The app shall response to any input in no longer than 5 milliseconds.

### 5.2 Safety Requirements

SA-1: The auto-gate shall detect obstructions under it and stop immediately.

10

### 5.3 Security Requirements

SE-1: The system shall protect user's personal data from unauthorised access.

SE-2: The system shall protect stored licensed plate number against unauthorised access.

17

SE-3: The system should only allow the management team to view report.

9

### 5.4 Software Quality Attributes

Availability-1: The system shall be available to users at all times.

Precision-1: The system shall calculate time to the nearest minute.

### 5.5 Business Rules

- The user should have smartphone to access the application.
- The user should have an existing internet connection to use the application.
- The system shall be connected to the application.

## 6. Other Requirements

The sections above have specified all the requirements needed for the system.

## Appendix A: Glossary

**Motorist**: The person who drives a vehicle.

**Touch ‘n Go eWallet**: a digital wallet that allows the user to make electronic transactions made by the Touch ‘n Go company.

**Pay-on-foot system**: A system that uses an autopay machine to pay parking tickets.

**IOT**: an acronym for Internet of Things.

**License Plate**: The number plate in front of a motor vehicle.

**IDE**: An acronym for Integrated Development Environment.

**IOS**: An acronym for iPhone Operating System.

## Appendix B: Analysis Models

Section 1 of 3

### General Question

The purpose of this section is to collect general information from the users.

What is your age? \*

17 - 25  
 26 - 35  
 36 - 55  
 55 and above

Which field or sector are you working in? \*

Office Worker  
 Business  
 Education (Lecturer, Professor etc.)  
 Self-Employed (Freelancer, Grab Driver etc.)  
 Other...

8  
Figure 8: Questionnaire Questions (I)

How often do you drive? \*

- Daily
- Weekly
- Monthly
- Yearly
- I don't drive at all

How often do you encounter an electronic parking system? \*

- Frequently
- Occasionally
- Not all All

Are you familiar with the smart wallet / e-wallet? \*

- Yes
- No

*Figure 9: Questionnaire Questions (2)*

How much do you spent on average for parking per week? \*

- Less than RM 10
- Between RM 10 - RM 50
- RM 51 - RM 100
- RM 100 above

*Figure 10: Questionnaire Questions (3)*

#### Section 2 of 3

## Problems in the Current System



The purpose of this section is to identify the problems existing in the current Smart Parking System.

What are the problems you currently have regarding the traditional parking system? \*

Long answer text

How long does it take for you to find a parking on a normal basis? \*

- Below 5 minutes
- 5 - 15 minutes
- 16 - 30 minutes
- Above 30 minutes

*Figure 11: Questionnaire Questions (4)*

Are you satisfied with the current parking system, why? \*

Long answer text

On a scale of 1 to 5, how would you rate the current parking system? \*

1

2

3

4

5

Very Bad

Very Good

What do you think of the current cost of the parking? \*

Long answer text

**Figure 12: Questionnaire Questions (5)**

Section 3 of 3

## Software (Smart Parking)

The purpose of this section is to gather the requirements of a Smart Parking System from the users.

What do you expect from a Smart Parking System? \*

Long answer text

Do you have any concerns regarding the system? \*

Long answer text

Will you prefer the Traditional Parking System or the Smart Parking

Traditional Parking System

Smart Parking System

Not Sure

Figure 13: Questionnaire Questions (6)

Do you have any concerns regarding the system? \*

Long answer text

Will you prefer the Traditional Parking System or the Smart Parking System? \*

- Traditional Parking System
- Smart Parking System
- Not Sure

On a scale of 1 to 5, do you think the Smart Parking System is important? \*

1      2      3      4      5

Very Unimportant

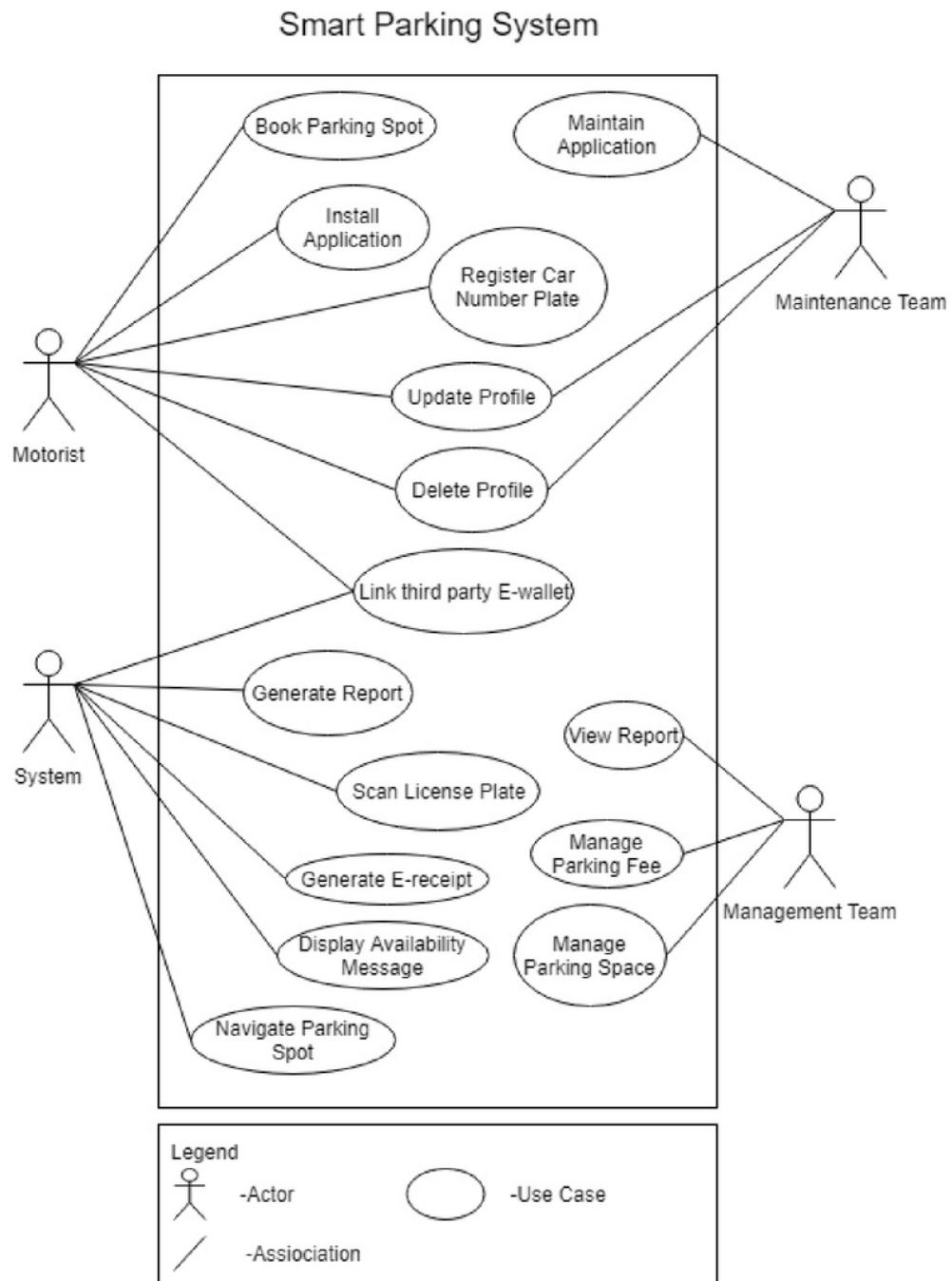
              

Very Important

Do you have any other features you would like to have in this system? \*

Long answer text

**Figure 14: Questionnaire Questions (7)**

**Figure 8: Smart Parking System**

# Group Assignment

## ORIGINALITY REPORT



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