

**BSc (Hons) Computer Science and Software**

**Engineering**

UNIVERSITY OF BEDFORDSHIRE

HireBuddy : Online Automobile Service Platform

**REFLECTIVE REPORT**

**Submitted by:**

**1727525**

**Nuwantha Fernando**

Table of Contents

**1.Introduction1**

1.1 Background1

1.2Motivation1

1.3 Overview of the report…………………………………………………………….…...2

**2.Reflection3**

2.1 Requirement gathering and analysis3

2.1.1 Task………………………………………………………………………………3

2.1.2 Issues……………………………………………………………………………..3

2.1.3 Solutions………………………………………………………………………….3

2.2 Designing4

2.2.1 Task………………………………………………………………………………4

2.2.2 Issues……………………………………………………………………………..4

2.2.3 Solutions………………………………………………………………………….4

2.3 Implementation and testing4

2.3.1 Task………………………………………………………………………………4

2.3.2 Issues……………………………………………………………………………..4

2.3.3 Solutions………………………………………………………………………….5

2.4 Documentation………………………………………………………………………...5

2.4.1 Task………………………………………………………………………………5

2.4.2 Issues……………………………………………………………………………..5

2.4.3 Solutions………………………………………………………………………….5.

**3.Future Work6**

3.1 Current Progress……………………………………………………………………….6

3.2 To be completed……………………………………………………………………….6

3.3 Conclusion………………………….………………………………………………….6

**4.Detailed Thesis Content7**

# 1. Introduction

1.1 Background

In recent years there has been a significant increment of the vehicle accidents due to the high vehicle population. As well as lots of people were suffering from the vehicle breakdowns and the tire punctures. This reality may waste the valuable time of the general population and also the neglect to oversee and to complete their daily tasks. Therefore people need a decent answer for this issue.

Most insurance providing agents offer some arrangements, yet the most of them are not practical. This project aims to develop a mobile application depends on Android and that guides people to get the help of an appropriate person in the area to recuperate the vehicle's disappointment. And it is not just to get the assistance of the person but also it gives lots of opportunities to the user by offering many features. The proposed system will be beneficial for every person to increase their efficiency while reduce the workload.

1.2 Motivation

The reason I chose the project is because of my past experience. Currently I’m supporting for my family business which owned by my parents. One of my main duties is to supply products to the middle party. Because of this reason I’m traveling long distances from home. As to my past experience I had to wait wasting many hours in the road due to vehicle breakdowns. Moreover, it was very tiring and stressful to find someone to recover the vehicle issues. I felt that there should be a proper organized system to handle such type of situation. According to service providers (Technicians, Mechanics) perspective they suffer with greater difficulties in finding a customer without having a proper system because some of the customer had the benefit of getting special based on their customer relationship.

Hence all the above matters motivated me to work on a customer user friendly, economical system which can be developing until Online Automobile Service Platform.

1.3 Overview of the report

This report contains 4 chapters. Such as;

* Introduction
* Reflection
* Future Work
* Detailed thesis content

From the first chapter, it gives an idea about the background of the proposed system as well as how I was motivated to develop such a system.

From next chapter, it basically talks about the issues I faced during some of the stages while it discuss how I overcome all of them during various stages of the software development life cycle model. Moreover up to now and the future works that I have to do.

Last chapter incorporates a review of the final thesis report mentioning what will be incorporated in to it.

2. Reflection

2.1 Requirement Gathering and Analysis

**2.1.1 Task**

I gathered primary data by using a distributed form. And then, I shared them with a sample of people. For example,

* Technicians
* Mechanics
* Vehicle users etc.

The form incorporates with general inquiries which are going to help me in the software creation process.

The questionnaire contained with questions as below;

1. What are the common breakdowns in your vehicle?
2. Can you handle a vehicle breakdown in your own?
3. Do you know any other service centre or an application as the proposed system? If so, what are they?

While analyzing the requirements, I used my experiences as well as the future discussion with the Supervisor.

Secondary data were gathered by reviewing the articles, researched papers as well as patent papers.

**2.1.2 Issues**

1. Chosen samples were been incapable to answer the questionnaire without having any knowledge about such type of proposed system.
2. Mechanics and technicians couldn’t clarify their requirements since they were not familiar with the technologies.
3. According to the analysed questionnaire, various people were given different sort of answers.
4. Questionnaire wasn’t been enough to identify the requirements.

**2.1.3 Solutions**

1. I was given a brief introduction about the idea of the system at the beginning of the survey.
2. Initially, I suggested my idea and got feedback from mechanic and technicians to enhance the proposed system.
3. I have done a self reflection to identify requirements.
4. Since I will be a user of the proposed system I generally cared about the requirements as my perspective and feasibility.

2.2 Designing

**2.2.1 Task**

By using analyzed gathered data I started designing the Graphical user interfaces of the system. And also I created real time data base using firebase. Further I began to create algorithms for the system.

**2.2.2 Issues**

1. Mobile Application Development is a complete new area of studying.
2. Changing the IDE. When starting the project I planned to develop the system by using react native. But after several supervisor meet ups he suggested me to use Android Studio.
3. Android Studio is completely new to me.

**2.2.3 Solutions**

1. I did a case study about mobile application development and followed an online course on Mobile Application development.
2. After having many discussions with experts I selected Android Studio as developing environment.
3. Get to familiar with Android Studio while working on it.

2.3 Implementation and testing

**2.3.1 Task**

I selected Agile as Software developing methodology. Since this is as Android based mobile application it is easy to develop the system sprint wise. Because of each sprint is having testing part it will help to achieve final product as expected.

**2.3.2 Issues**

1. The main problem I faced is time management. It is hard to develop proposed system while joining a job.
2. The tool which I used to build the Gantt chart was Microsoft project. Since I am new to this tool the initial Gantt chart was build according to incorrect date plan.
3. Had to work stressfully due to the first sprint must be finished and tested before the final release.

**2.3.3 Solutions**

1. By creating the Gantt chart it helped me to keep the project on the track.
2. Re made the Gantt chart until satisfied.
3. Consulted a Mobile Application develop expert to help me with the bug fix.

2.4Documentation

**2.4.1 Task**

As the part of the assessment procedure I had to submit four major documents along with signed Progress Reports. The documents submitted are as follows

1. Project proposal
2. Contextual report
3. Reflective report
4. Final thesis report

**2.4.2 Issues**

1. Poor practice of referencing the sources.
2. Select suitable articles, research papers relevant to the system.
3. Some web applications ask for payment when download articles and papers.

**2.4.3 Solutions**

1. Got the support of MS Word for paper referencing.
2. Got the guidance from the supervisor when selecting the paper articles.
3. University network has given the free download access to the relevant sites.

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3. Future Work

3.1 Current Progress

Up to now requirement gathering phases are completed and it seems that customer won’t change any of his requirements until he tests the prototype. Database is designed, and the GUIs are also designed.

Currently I’m at the last stages of developing the first prototype version. It can be implemented within a week and I hope to test it for another week with the customer.

Since I couldn’t catch up with the initial Gantt chart and their dates were wrong, I was careful to follow the new Gantt chart properly. By the time of 30th July 2018, I could manage my work according to the Gantt chart

3.2 To be completed

Final steps of the first prototype version will be completed by 2nd of August 2018. It will be implemented and tested with the customer by 10th of August 2018. During next 10-15 days the final product will be completed by fixing the errors and bugs found in the prototype version and relevant modifications will be done as per customer’s feedback.

By the first week of September the final product will be implemented, and customer will be able to use it.

Further as a part of evaluation process, Final Thesis report is to be submitted.

3.3Conclusion

By the end of this report I realized that to maintain the quality of my project I have to manage the triple constraints: ‘Scope’, ‘Time’ and ‘Cost’. Among these three, time is the most critical constraint that is hard to manage.

4.Detailed Thesis Content

Title page **–**  First page of the document, will include the name of the universityalong with the logo of the university., name of the submission, student ID, and Student Name

Abstract- This will include a summary of how the system will works and the need for such system.

Acknowledgement**-** This will include a vote of thanks for each and every individual who helped through the entire process to make it a success.

Content Page/List of figures/ List of tables/ Acronyms/Abbreviations.

**Chapter 1: Introduction**

1.1Project Background**–**I will include the reasons behind this project and how the system will fulfil customer’s requirements

1.2Project Aim and Objectives**–**The aim of the project and the objectives of this system is given under this chapter.

1.3Project Realisation**-**  This chapter will include how the requirements are gathered and how the system development is done as an overall summary.

1.4Structure of the Report **–** This will give an idea about the final thesis report including what each chapter is about.

**Chapter 2: Literature Review**

2.1 Quotation generation in printing industry-This chapter will include and describe how the quotation generating is done in printing industry

2.2Common Quotation generation systems **–** This chapter will include of different quotation generating systems.

2.3 Data Mining**-**  This chapter will describe about data mining strategies.

2.4 Customer Relationship Management- This chapter will include of Customer Relationship Management and currently used software for CRM.

2.5 Similar systems**-** This chapter will include of the similar systems as the developed systems.

2.6 Research Significance**-** This chapter will include an optimum comparison of current similar systems and the new system.

**Chapter 3: Methodology**

3.1Methodology – This chapter will explain the methodology chosen to develop the system.

3.2Planning**–**This chapter will explain the planning phase of the project with relevant charts and diagrams.

3.3Requirement Gathering& Analysis **–**This chapter will explain how the primary and secondary data gathering and analysis were taken place.

3.4Design**–**This chapter will include the relevant system diagrams and the initial design of the system

3.5 Implementation & testing- This chapter will include all the details about the implementation and the testing of the prototype of the system further it will include code segments.

**Chapter 4: Results and Discussion**

This chapter will include the test cases and their results. As evidences required screenshots during and after testing and debugging will be included to show the results obtained.

**Chapter 5: Evaluation**

This chapter will include how the evaluation is done and the critical discussion is done based on the evaluations of the system.

**Chapter 6: Conclusion**

6.1 Conclusion**–** This chapter will give an overall idea about the importance of the project and its progress.

6.2Limitations**–**This section will include the limitations I faced throughout the time period of this project.

6.3Future work**–**This chapter willconclude the report andwill include any future development that can be added to the system in future

**References-** The external sources that have referred will be cited here according to Harvard style.

**Appendices–** other supportive materials which supports the document will be mentioned here.