

**CERTIFICATION OF APPROVAL**

**Fertilizer Recommendation System for Flower Lovers:**

**Home Guide**

By

**Nur Amira Binti Nordin**

Dissertation submitted in partial fulfillment of  
the requirements for the  
Bachelor of Technology (Hons)  
(Business Information Systems)

Approved by,

---

(Dr Ahmad Sobri Bin Hashim)

UNIVERSITI TEKNOLOGI PETRONAS

TRONOH, PERAK

May 2015

## **CERTIFICATION OF ORIGINALITY**

This is to certify that I am responsible for the work submitted in this project, that the original work is my own except as specified in the references and acknowledgements and that the original work contained have not been undertaken of done by unspecified sources or persons.

---

Date:

Nur Amira Binti Nordin

## **ABSTRACT**

This project will focus on the problems that is facing by the flower lovers which is they wants to know the suitable fertilizers for their plants. The author will identify the weaknesses and problems that are related to the technology area that been slowing down the recommendation of fertilizer for general used. The proposed idea on the problems identified to develop an application to help flower lovers because mobile application getting famous nowadays but the most of the mobile applications that are available more towards mobile games, photography, social network, travel applications, education application and entertainment sites. However, even with all these interesting mobile applications, there are few applications that based on environmental information and recommendation system. One mobile application that that may be related to this is the “Fertilizer Recommendation System for Flower Lovers: Home Guide”. The method used to develop this application is RAD Prototype model. During the requirement gathering, result was used to design the mobile application. This application will provide user with exact information about the type of flowers, type of fertilizers and schedule and finally the application should be efficient and user friendly

## **ACKNOWLEDGEMENT**

The In the name of ALLAH S.W.T, The Most Gracious and The Most Merciful, I would like to express a lot of thanks to ALLAH, The Almighty God for giving me the willpower and opportunity to complete my project.

I owe a debt of gratitude to my supervisor Dr. Ahmad Sobri bin Hashim for his encouragement, supports, and advise during my period in completing this project. Without his assistance, co-operations and willingness to share knowledge and experience in completing my project, the project will be incomplete.

Furthermore, I would like to thank especially to my family for their supports and motivations throughout my studies. They have given me precious supports and patience as well as their pride and confidence at every stage of studies.

Last but not least, I also would like to thank Universiti Teknologi PETRONAS (UTP) for giving me the opportunity to learn and experience the real project development through this Final Year Project. This is a valuable and beneficial project as the preparation for me before I move to the real working environment in the future. Thank you.

<b>CERTIFICATION OF APPROVAL</b>	i
<b>CERTIFICATION OF ORIGINALITY</b>	ii
<b>ABSTRACT</b>	iii
<b>ACKNOWLEDGMENT</b>	iv
<b>TABLE OF CONTENTS</b>	vi - vii
<b>LIST OF FIGURES</b>	viii
<b>LIST OF TABLES</b>	viii
<b>CHAPTER 1: INTRODUCTION</b>	
1.1 Background of Study	1 - 2
1.2 Problem Statement	3 - 4
1.3 Objectives and Scope of Study	4
1.3.1 Objective	4
1.3.2 Scope of Study	4 - 5
1.4 Relevancy of the Project	5
1.5 Feasibility of the Project within the Scope and Timeframe	5 - 6
<b>CHAPTER 2: LITERATURE REVIEW</b>	
2.0 Fertilizer	7
2.1 Combination of Organic and Chemical Fertilizer	8 - 9
2.2 Flower plant	9 - 10

2.3 Suitable soil for flower plant	11
2.6 Android	12
2.6 The Importance of Technology to Solve the Issue	12 - 13
2.7 Current Relevant Project	14 - 15
2.8 Comparing existing application	16
<b>CHAPTER 3: METHODOLOGY</b>	
3.0 Research Methodology	17- 18
3.1 Development Methodology	19 - 21
3.2 Tools Required	22
3.3 Gantt Chart and Key Milestones	23
3.4 Use Case Diagram	24
3.5 System Architecture	25
<b>CHAPTER 4: RESULT AND DISCUSSION</b>	
4.1 Introduction	26
4.2 System Interfaces Screenshot	26
4.2.1 Home Page and Main Menu	27 – 30
4.4 Testing	31 - 33
4.5 How System Will Help the Operation	34
4.6 Object Recognition Method	34

## **CHAPTER 5: CONCLUSION AND RECOMMENDATIONS**

5.1 Conclusion 35

5.2 Recommendation 36

**REFERENCES** 37

**APPENDICES** 38 - 44

## **LIST OF FIGURES**

Figure 1: Fertilizer apps	12
Figure 2: Fertilizer Removal Apps	13
Figure 3: SDLC Methodology	15
Figure 4: Prototype research methodology	16
Figure 5: Gantt chart and Key Milestone FYPI & FYPII	19
Figure 6: Use Case Diagram	20
Figure 7: System architecture	21
Figure 8: Home page	23
Figure 9: Instruction	24
Figure 10: My Garden page	25
Figure 11: Schedule page	26
Figure 12: Functionality Test	28
Figure 13: User Acceptance Test	19

## **LIST OF TABLE**

Table 1: Comparisons	14
----------------------	----