

UNIVERSITI TEKNOLOGI MARA

**A WEB BASED HOUSEPLANTS
RECOMMENDER SYSTEM TO OPTIMIZE
RESIDENTIAL GREEN INITIATIVES**

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STUDENT DECLARATION

I certify that this thesis and the project to which it refers is the product of my own work and that any idea or quotation from the work of other people, published or otherwise are fully acknowledged in accordance with the standard referring practices of the discipline.

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ABSTRACT

One of the easiest ways to participate in green initiatives is by planting plants around the house. Nevertheless, this is often overlooked by community of residents of residential areas because of lack of knowledge in choosing houseplants. Therefore, in this study, a web-based Houseplants Recommender System is developed. Houseplants Recommender System could give recommendation of the most suitable houseplants to the user. There are five questions regarding user preference that needs to be answered in order to receive recommendation from the system. The questions surround whether user loves indoor or outdoor plants, high maintenance or low maintenance plants, tropical plants or flowering plants, colourful plants or greenery plants, as well as size of plants whether small or large. In the output user will get information such as common name, scientific name, height, spread, light needed, watering frequency and some of the plant's essential facts. Houseplants Recommender System techniques of rule bases to recommend houseplants to the user. There are several benefits in using Houseplants Recommender System; which are user can save more time from going to the nursery in order to search and decide on the ideal plant, user can choose the plants several times and get more information about the houseplants before actually deciding to buy it and the system helps user in learning how to care for houseplants properly. Two testing which are Heuristic Evaluation for experts review and User Acceptance Test based on Technology Acceptance Model (TAM) for the end-user were conducted. As a result, most of the respondents agreed Houseplants Recommender System that manage to recommend suitable houseplants based on user preference. Besides that it also provides tips how to take care for indoor plants, how to take care for orchid, how to water plants and types of plants disease.

TABLE OF CONTENTS

SUPERVISOR APPROVAL.....	ii
STUDENT DECLARATION.....	iii
ABSTRACT.....	iv
ACKNOWLEDGEMENT.....	v
TABLE OF CONTENTS	vi
LIST OF FIGURES	ix
LIST OF TABLES	xi
CHAPTER 1 INTRODUCTION	1
1.1 Background of Study.....	1
1.2 Problem Statement	4
1.3 Objective	4
1.4 Project Scope.....	5
1.5 Project Significance.....	5
1.6 Summary	5
CHAPTER 2 LITERATURE REVIEW	6
2.1 Green Initiatives	6
2.1.1 Green Initiatives Activities.....	6
2.1.2 Green Initiatives at International Level.....	8
2.2 Houseplant.....	9
2.2.1 Indoor Plants	10
2.2.2 Outdoor Plants.....	10
2.3 Recommender System.....	10
2.3.1 Rules-based Technique as a Recommender System	11
2.4 Web-Based Application	12
2.4.1 Types of Web-Based Applications.....	13
2.4.2 Benefits of Web-Based Applications	13
2.5 User Acceptance Testing (UAT).....	14
2.5.1 Technology Acceptance Model (TAM).....	15
2.6 Related Work.....	15
2.6.1 Movies Recommender Systems	16
2.6.2 Introduction to Music Recommendation and Machine Learning.....	17

4.8	Summary	59
CHAPTER 5 RESULT AND FINDINGS.....		60
5.1	Heuristic Evaluation	60
5.1.1	Measurement Scales in Heuristic Evaluation.....	60
5.1.2	Visibility of System Status	61
5.1.3	Match between System and the Real World	63
5.1.4	Consistency and Standards.....	64
5.1.5	Recognition rather than Recall.....	66
5.1.6	Aesthetic and Minimalist Design	67
5.1.7	Comments and Suggestions	68
5.2	Technology Acceptance Model (TAM)	69
5.2.1	Study Setting	70
5.2.2	Measurement Scales	70
5.2.3	Perceived Usefulness (PU).....	71
5.2.4	Perceived Ease of Use (PEOU).....	73
5.2.5	Behavioural Intention (BI)	75
5.2.6	Behaviour (B).....	77
5.3	Summary	78
CHAPTER 6 DISCUSSION AND CONCLUSION.....		79
6.1	Introduction	79
6.2	Limitations	79
6.2.1	Limitation on the methods of informing alert message.....	80
6.2.2	Limitation on the method of image zoom	80
6.3	Recommendation.....	80
6.3.1	Record video how to care houseplants.....	80
6.3.2	Calendar and Timetable Diary Houseplants.....	80
6.3.3	Improve result page interface	81
6.4	Conclusion.....	81
REFERENCES.....		82
APPENDICES		87
APPENDIX A: QUESTIONNAIRE		87
APPENDIX B: HEURISTIC EVALUATION		91
APPENDIX C: UAT		95