BORANG PENGESAHAN STATUS TESIS^

JUDUL: <u>UNIVERSAL MOBILE INTERFACES; ICON DESIGN</u>
       <u>(BETWEEN MOBILE PHONE MANUFACTURER)</u>

SESI PENGAJIAN: <u>2006/2007</u>

Saya <u>MOHD SHAHRUL NIZAM BIN SHUKOR</u> mengaku membenarkan tesis (PSM/Sarjana/Doktor Falsafah) ini disimpan di Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dengan syarat-syarat kegunaan seperti berikut:

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2. Perpustakaan Fakulti Teknologi Maklumat dan Komunikasi dibenarkan membuat salinan untuk tujuan pengajian sahaja.
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Alamat tetap: <u>NO. 26, JALAN HJ. IDRIS</u>   <u>ZULISMAN BIN MAKSOM</u>
              <u>KAMPUNG RINCHING HILIR</u>   Nama Penyelia
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              <u>SELANGOR</u>

Tarikh : <u>21 NOV 2006</u>   Tarikh : <u>20 NOV 2006</u>

CATATAN: ** Jika tesis ini SULIT atau TERHAD, sila lampirkan surat daripada pihak berkuasa.
         ^ Tesis dimaksudkan sebagai Laporan Projek Sarjana Muda (PSM)

UNIVERSAL MOBILE INTERFACES; ICON DESIGN (BETWEEN MOBILE PHONE MANUFACTURERS)

MOHD SHAHRUL NIZAM BIN SHUKOR

This report submitted in partial fulfillment of the requirement for the Bachelor of Information and Communication Technology
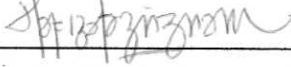
(Interactive Media)

FACULTY OF INFORMATION AND COMMUNICATION TECHNOLOGY KOLEJ
UNIVERSITI TEKNIKAL KEBANGSAAN MALAYSIA

2006

DECLARATION

I hereby declare that this project report entitled

UNIVERSAL MOBILE INTERFACES; ICON DESIGN

(BETWEEN MOBILE PHONE MANUFACTURERS)

is written by me and is my own effort and that no part has been plagiarized
without citations.

STUDENT: _____ Date: 21 NOV 2006

(MOHD SHAHRUL NIZAM BIN SHUKOR)

SUPERVISOR: _____ Date: 20 NOV 2006

(ZULISMAN BIN MAKSOM)

DEDICATION

To my beloved parents, siblings and friends...

ACKNOWLEDGEMENTS

Bismillahirrahmanirrahim

Alhamdulillah, thanks to God for giving me a good health and opportunity for finishing this Projek Sarjana Muda (PSM) . Thanks also for giving me some extra ability and helping me during this PSM.

I would like to give my full thanks to my PSM supervisor, En. Zulisman Bin Maksom for his kindness, his patient, his advices and all of his effort for helping me through this PSM . Without him I do not think I can do it alone.

I also would like to thanks my beloved mom for her support and all of my family members especially my sisters and my brothers.

Last but not least my friends who's always there where ever I need help. And to all of you who was giving me support and helps.

Thank you.

iii. **Questionnaires**

The questionnaires are given to the user after the test to get the feedback from what they have been doing in the test. The questionnaire will ask about the Designing, Functionality and also Interfaces. This questionnaire will focus on simulation only.

iv. **Analysis**

Analysis is very important to the test. The analysis are made trough the feedback of user which is questionnaire. The analysis is to ensure that the simulation are succeed or not to the eye of user. Trough this analysis developer can make some assessment to the project.
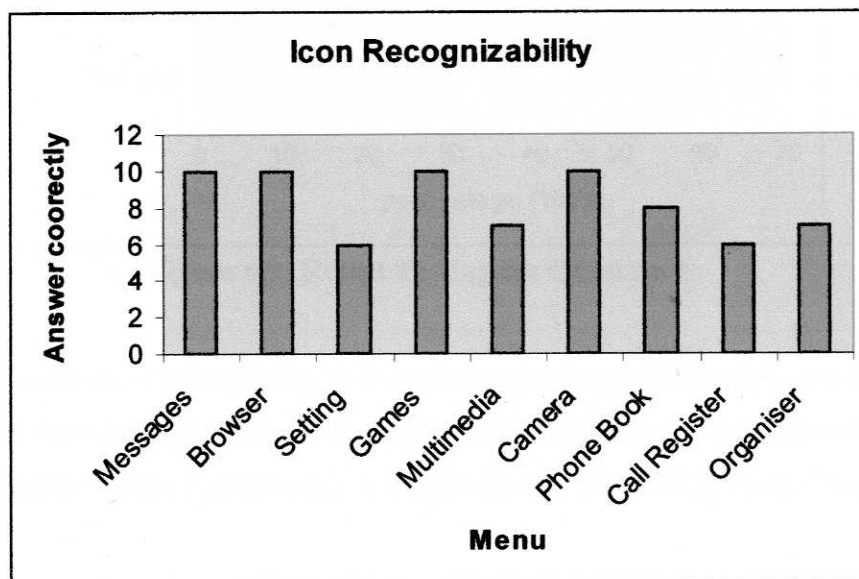
6.5 TEST RESULT AND ANALYSIS

The testing that has been done will need the result and the analysis of the testing. The result is important to the developer as one of the source of the assessment where all the criticisms will help the developer to build the very good application for the next project. In this test, the developer has 10 respondents to use the simulation and answer the entire question required.

6.5.1 Result and analysis of Naming and Time Test (XEROX)

The test has been done toward 10 respondents. All of them are given 5 minutes for answer the question which is spot the name of the icons show on the monitors' screen. Below is the result of the test.

Table 6.3: The result of Naming and Time Tests

Icon	Correct	Incorrect
Messages	10	0
Browser	10	0
Setting	6	4
Games	10	0
Multimedia	7	3
Camera	10	0
Phone Book	8	2
Call Register	6	4
Organiser	7	3

Figure 6.8: Icon recognizability observation

The result show that the icons that is created are mostly recognize by user. That is mean that the icons is applicable and accept by user.

6.5.2 Result and analysis of Testing Questionnaires.

The questionnaires are given after the Naming and Time Test has been done. These questionnaires are actually for the analysis of the simulation such as the simulation display, simulation workflow, graphic display, and also the simulation interfaces. There are 8 easy questions that need to be answer by 10 respondents. Below are the result and the analysis of the questionnaires.**(see APPENDIX F)**

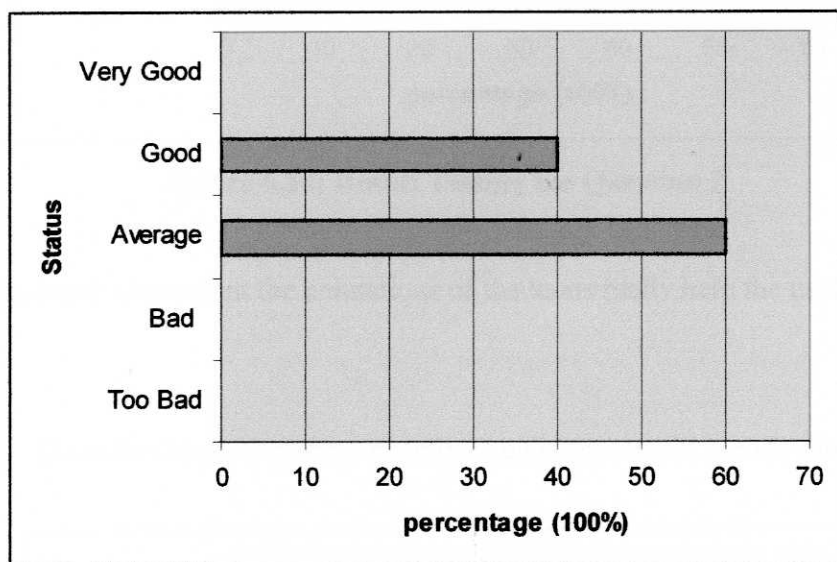1.   How was the new icon for menu interface of mobile phone?

Figure 6.9: Result Testing for Question 1

The result show that 60 percent from the respondent said that the icons that has been created were average. Meanwhile another 40 percent said that the icons were good. This because most of the respondent is familiar with the icon and the icon also easy to recognize.

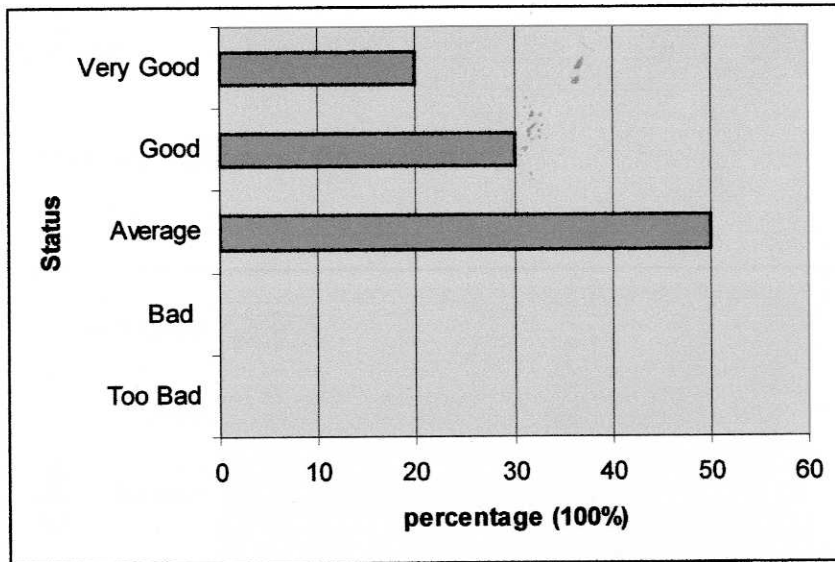2.   How was the animation helps you to spot the name of the icons?

Figure 6.10: Result Testing for Question 2

The result shows that the animations of the icons really help the user to recognize the icons.

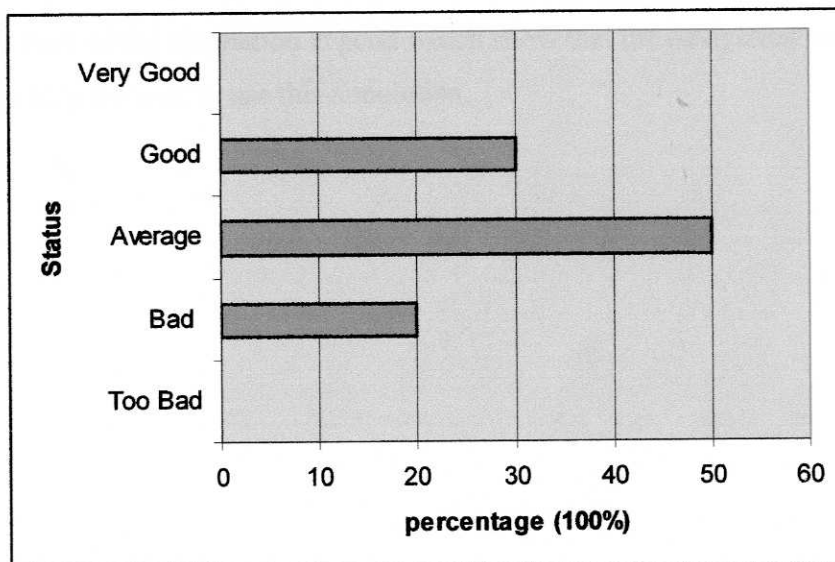3.   Does the simulation show exactly like the real world mobile phone?

Figure 6.11: Result Testing for Question 3

The result shows that the graphic of the simulation is only average. This is happening may be because the graphic that is used cannot attract the user to immerse with the simulation.
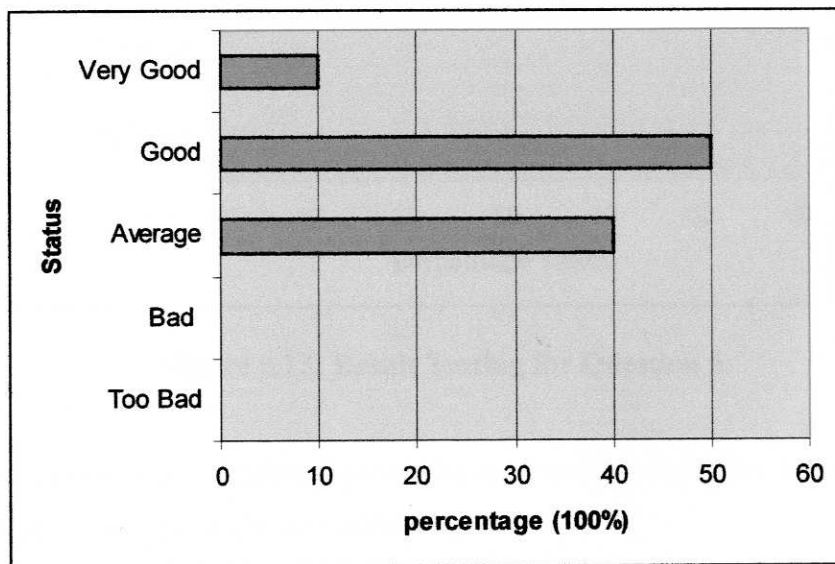
4.   How was the flow of the simulation?

Figure 6.12: Result Testing for Question 4

The flow of the simulation is good which show that the navigation and the user guide really help the user to use this simulation.

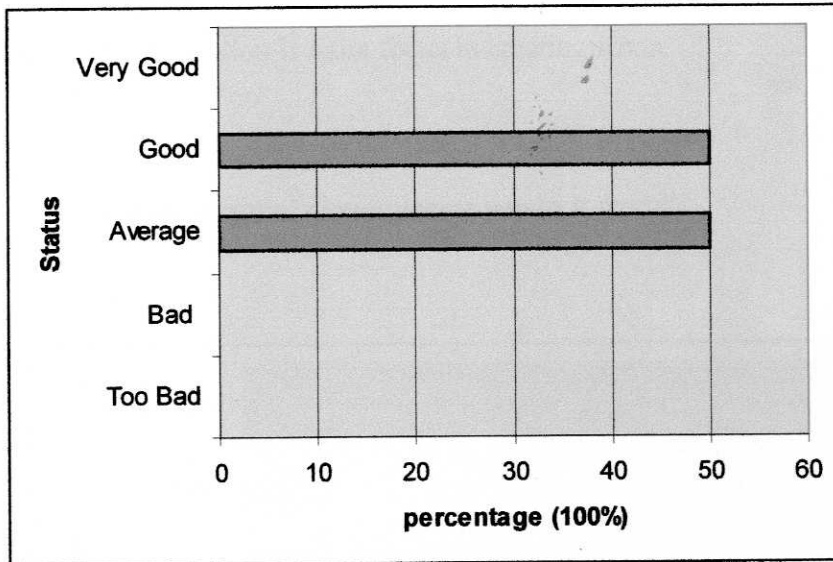5.   How was the interaction of the simulation response to you?

Figure 6.13: Result Testing for Question 5

Interaction of the simulation should be more and hopefully the next time there will be more interaction in this simulation.

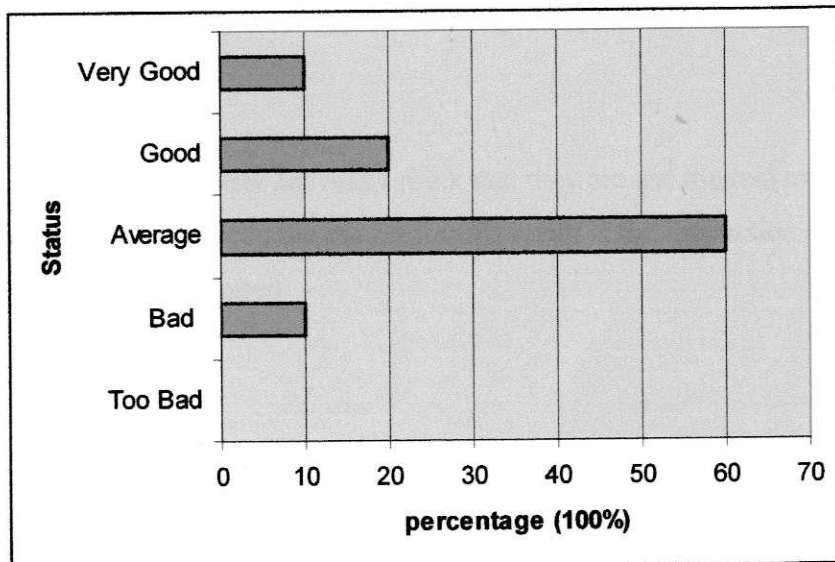6.   How was the interface of the simulation attracting you?

Figure 6.14: Result Testing for Question 6

The interfaces are totally average. It shows that the interfaces of the simulation should be more attractive because there is 10% of the respondents said that the interface is bad. May be this simulation is more focus in creating icons.

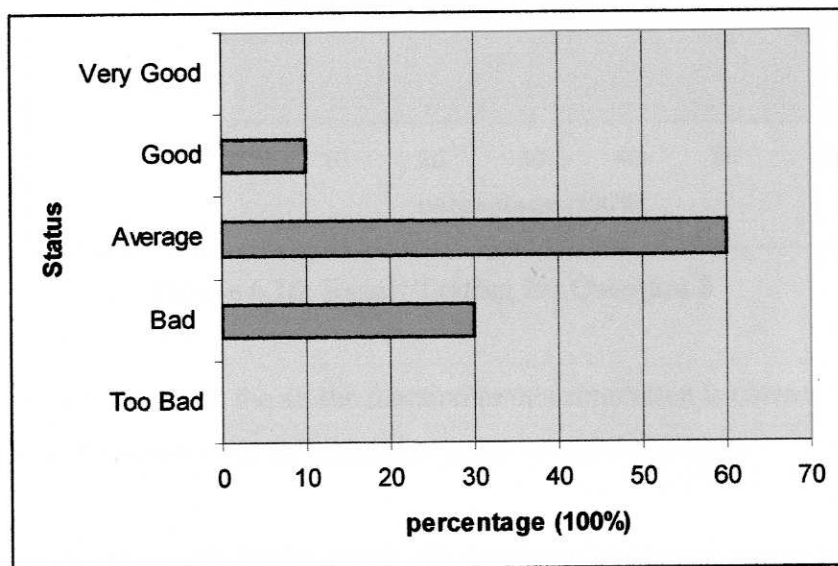7.   How was the simulation immerse you to it world?

Figure 6.15: Result Testing for Question 7

Immerse meant the user are really think that they are use the real mobile phone in this simulation. For this project, the reason for this result is the interaction of the simulation with user was limited.

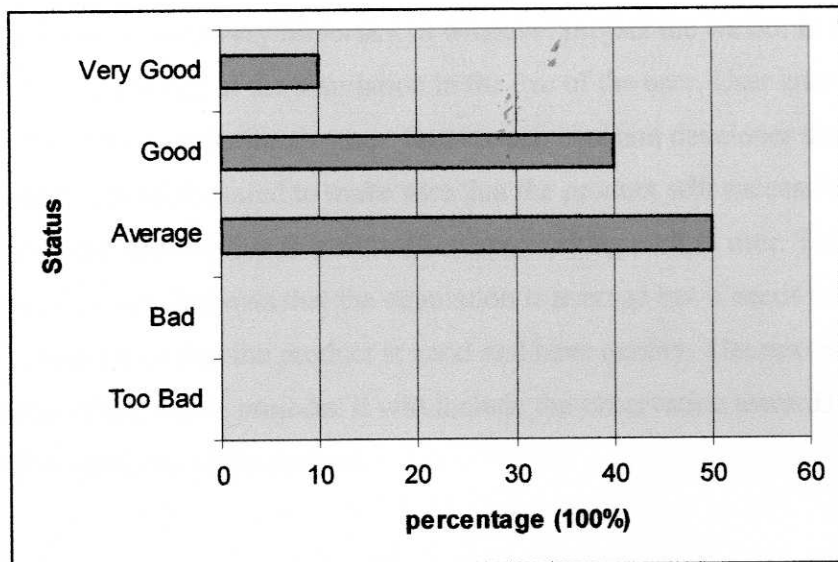8.   How about the functionality of the simulation?

Figure 6.16: Result Testing for Question 8

The result show that the all the function in this simulation is correct. The functionality of the button was followed the design of the simulation.

Based on the questionnaires result, the result can be viewed according to the classes of test.

Table 6.4: The summary of the test result

No	Classes of test	Test result (0 – 5)	Description
1	Simulation display	3	Average
2	Simulation workflow	4	Good
3	Interaction	2	Need to provide good interaction which can immerse user with the simulation.
4	Functionality	4	Good
5	Interfaces	2	The interface should be attractive.

6.6   CONCLUSION

As we know, testing very important in whatever project the we do. In this testing phase we will see the usage of the simulation in the eye of the user. User knew what they want and we build this simulation for user. So between user and developer there is something that needs to be shared to make sure that the product will successfully done. In this phase we can analyze that this simulation are working well to user. This is because most of the result shows that the simulation is average but it needs some assessment to make sure that the product is good and have quality. The next chapter will be the summary of the whole projects. It will include the observation towards the strengths and weaknesses of the project.

CHAPTER VII

PROJECT CONCLUSION

7.1 OBSERVATION ON WEAKNESSES AND STRENGTHS

After all the testing has been done, there will be an observation on the weaknesses and strengths of the projects. This observation will help the developer to analyze back what has been done so far with the project and what steps should be enhance towards it.

In this project there is some strength that can be share with the user. The strength is the icons that are created are really familiar and applicable by user. The icons are actually chosen by the user trough the questionnaires in the rating test. The after the best icons were selected, the developer will created the same icons followed the elements needed for each icon and the animate them to be a universal icons. Other than that, the animations of the icons really help the user on recognizing the icons.

In this project also have some weaknesses that can be solve soon. The weaknesses should be enhance with the good skills and research. The weakness of the project is the simulation of the mobile phone is not really immersing the user who uses this simulation. This is because the interaction between user and simulation is limited and the graphic that display the simulation was not attractive. Hope these weaknesses can be solve soon by not limiting the interaction of the simulation. The graphic that is

used for the simulation can be change to make sure that user satisfied with the simulation.

7.2   PROPOSITIONS FOR IMPROVEMENT

As stated above, the problems of this simulation can be improved by having a lot of interaction between user and the simulation itself. The interactions are limited because the developer only implement until the second level of the mobile phone menu interfaces. Hope for the next time, the developer will have some time to give a full intention towards the interaction of the simulation.

Other than that, the interfaces should be changed to a more real situation. If the developer cannot afford to do it, he or she can hire interface designer for this mobile phone simulation interfaces. The interfaces should be more realistic and attractive.

7.3   CONTRIBUTION

Universal interfaces design; icon design is the project where give an idea to mobile phone manufacturers to develops universal icons for their mobile phone menus' interfaces. The project helps the developer to find out what are the icons which are recognized and familiar to the users of mobile phone. The project also help the developer in analyzed the important of the icons and the users need towards the mobile phone interfaces design. Some icons that were created can be use as the icons to their mobile phone.

7.4 CONCLUSION

Universal Design Interfaces; Icon Design is archive it goals which is to examine the differences of the icons for each manufacturer of mobile phone. The examining of the icons have been made trough the observation and questionnaires. Then the result comes out with the analysis that can help the second objectives of the project. The second objective is to designing universal icon for 3 x 3 menu interfaces of the mobile phone. The icons were design with users' requirement where all the icons is choose by users in the icon rating test. Then animations were added to these icons to make sure that the icons were recognized by users. The animations actually help the user to recognize the icons where all the elements that show the meaning of the icons are added. The mobile phone simulation need to be improve so that the user can immerse with the simulation which means user really fell that they use the real mobile phone. As the conclusion, this project has archive its target but some application need some assessment due to the problems stated. Hopefully, this project can be used in the real mobile phone interfaces in the future.

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13.   www.viktoria.se/~leh/publications/index.html **(June 2006)**

APPENDIX A

GANTT CHART

#	Task Name	Duration	Start	Finish
2	*Briefing to students about PSM 1 and supervisor*	1 day	Mon 5/8/06	Mon 5/8/06
3				
4	**Proposal Phase**	**5 days**	**Mon 5/8/06**	**Fri 5/12/06**
5	Start to draft the proposal	2 days	Mon 5/8/06	Tue 5/9/06
6	Discuss with supervisor about the topic	1 day	Wed 5/10/06	Wed 5/10/06
7	Complete the proposal and submit it to supervisor	2 days	Thu 5/11/06	Fri 5/12/06
8				
9	**Chapter 1 Phase(Introduction)**	**9 days**	**Mon 5/15/06**	**Thu 5/25/06**
10	Start to draft the Chapter 1	3 days	Mon 5/15/06	Wed 5/17/06
11	Discussion with supervisor	1 day	Wed 5/17/06	Wed 5/17/06
12	Start with Project Background and Problem Statement	2 days	Thu 5/18/06	Fri 5/19/06
13	Continue with Scopes, Objectives and Project Significance	2 days	Mon 5/22/06	Tue 5/23/06
14	Completing the other Chapter 1 section	2 days	Wed 5/24/06	Thu 5/25/06
15	Submit the Chapter 1 section	1 day	Thu 5/25/06	Thu 5/25/06
16				
17	**Chapter 2 Phase(Literature Review and Project Methodology)**	**9 days**	**Mon 5/15/06**	**Thu 5/25/06**
18	Start to draft the Chapter 2	4 days	Mon 5/15/06	Thu 5/18/06
19	Literature Review,Project Methodology and Project Requirement	2 days	Fri 5/19/06	Mon 5/22/06
20	Completing the other Chapter 2 section	2 days	Tue 5/23/06	Wed 5/24/06
21	Submit the Chapter 2 section	1 day	Thu 5/25/06	Thu 5/25/06
22				
23	**Chapter 3 Phase(Analysis)**	**7 days**	**Thu 6/1/06**	**Fri 6/9/06**
24	Start to draft the Chapter 3	2 days	Thu 6/1/06	Fri 6/2/06
25	Doing some research about Problem and Requirement Analysis	2 days	Mon 6/5/06	Tue 6/6/06
26	Completing the Chapter 3 section	2 days	Wed 6/7/06	Thu 6/8/06
27	Submit the Chapter 3 section	1 day	Fri 6/9/06	Fri 6/9/06
28				
29	**Chapter 4 Phase(Design)**	**16 days**	**Mon 6/12/06**	**Mon 7/3/06**
30	Start to draft the Chapter 4	2 days	Mon 6/12/06	Tue 6/13/06
31	Completing the Chapter 4 section	3 days	Wed 6/14/06	Fri 6/16/06
32	Submit the Chapter 4 section	1 day	Mon 6/19/06	Mon 6/19/06

Developer: Mohd Shahrul Nizam Bin Shukor
Project: Universal Mobile Interfaces; Icon Design

Task		Milestone		External Tasks
Split		Summary		External Milestone
Progress		Project Summary		Deadline

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ID	Task Name	Duration	Start	Finish
34	*Presentation and Assessment of PSM 1 project*	5 days	Tue 6/27/06	Mon 7/3/06
35				
36	**Chapter 4 (High level Design)**	3 days?	Wed 8/2/06	Fri 8/4/06
37	Discussion with supervisor	1 day?	Wed 8/2/06	Wed 8/2/06
38	Detailing the storyboard	1 day	Thu 8/3/06	Thu 8/3/06
39	Correction on Design chapter	1 day?	Thu 8/3/06	Thu 8/3/06
40	Submit Chapter 4	1 day?	Fri 8/4/06	Fri 8/4/06
41				
42	**-Chapter 5 Phase(Implementation)**	31 days?	Thu 8/10/06	Thu 9/21/06
43	Discussion with supervisor	1 day?	Thu 8/10/06	Thu 8/10/06
44	Completing chapter 5 section	29 days	Fri 8/11/06	Wed 9/20/06
45	Submit chapter 5	1 day?	Thu 9/21/06	Thu 9/21/06
46				
47	**Chapter 6 Phase (Testing)**	44 days?	Thu 8/3/06	Tue 10/3/06
48	Alpha Testing I	1 day?	Thu 8/3/06	Thu 8/3/06
49	Alpha Testing II	1 day?	Mon 8/7/06	Mon 8/7/06
50	Alpha Testing III	1 day?	Fri 9/15/06	Fri 9/15/06
51	Beta testing	1 day?	Fri 9/22/06	Fri 9/22/06
52	Completing Testing Report	6 days	Mon 9/25/06	Mon 10/2/06
53	Submit Chapter 6 progress report	1 day?	Tue 10/3/06	Tue 10/3/06
54				
55	**Final Thesis Draft Submission**	3 days?	Tue 10/3/06	Thu 10/5/06
56	Chapter 7 completion(Conclusion)	1 day?	Tue 10/3/06	Tue 10/3/06
57	Restructuring the content and format	2 days	Tue 10/3/06	Wed 10/4/06
58	Submision of final draft	1 day?	Thu 10/5/06	Thu 10/5/06
59				
60	**Demonstration with PSM 2 supervisor**	1 day	Fri 10/6/06	Fri 10/6/06
61				
62	**Final Presentation And Assessment of PSM 2 Project**	3 days	Wed 11/1/06	Fri 11/3/06

Developer: Mohd Shahrul Nizam Bin Shukor
Project: Universal Mobile Interfaces; Icon Design

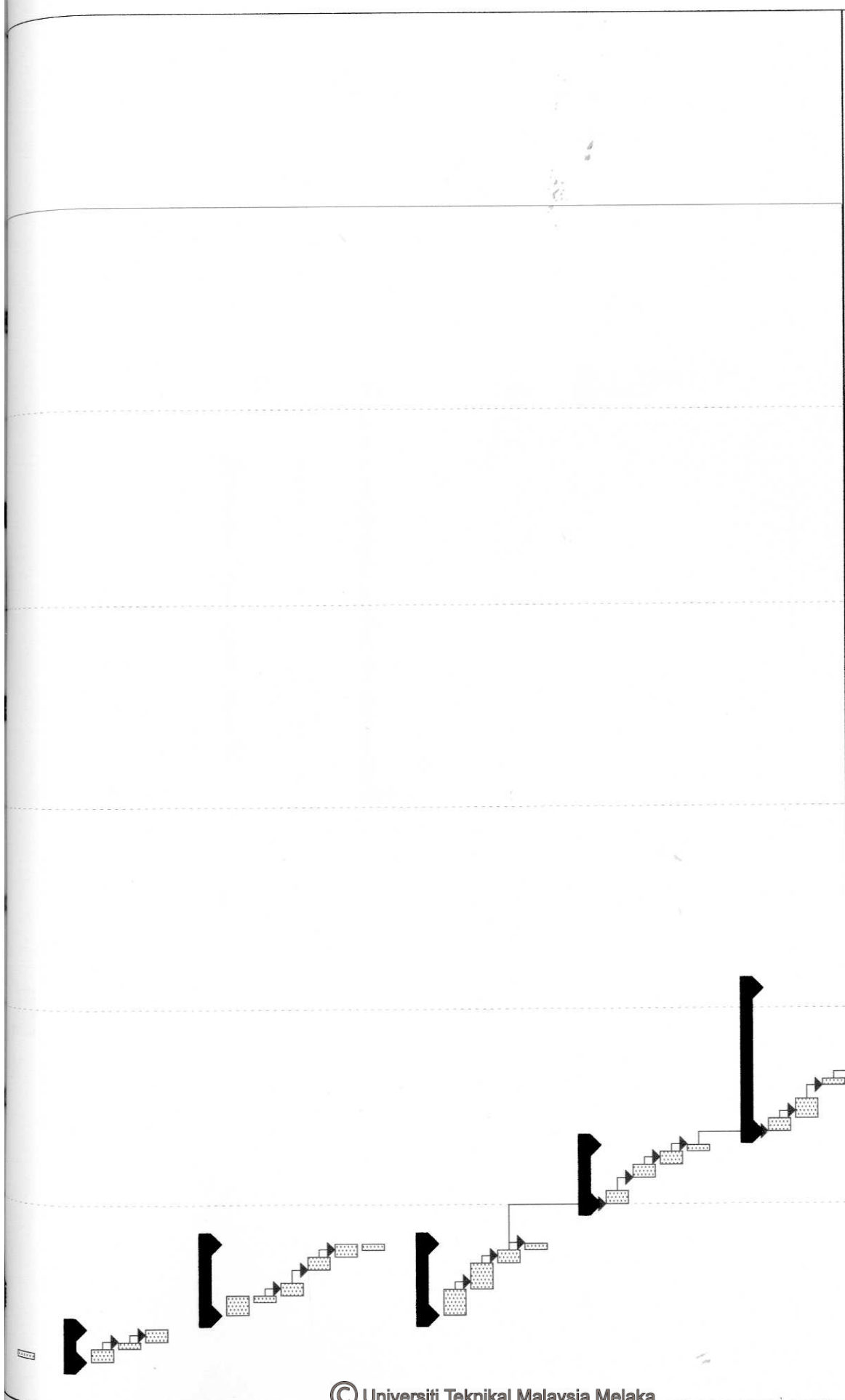| Task | | Milestone | ◆ | External Tasks | |
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| Progress | | Project Summary | | Deadline | ⇨ |

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Task
Split
Progress

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External Tasks
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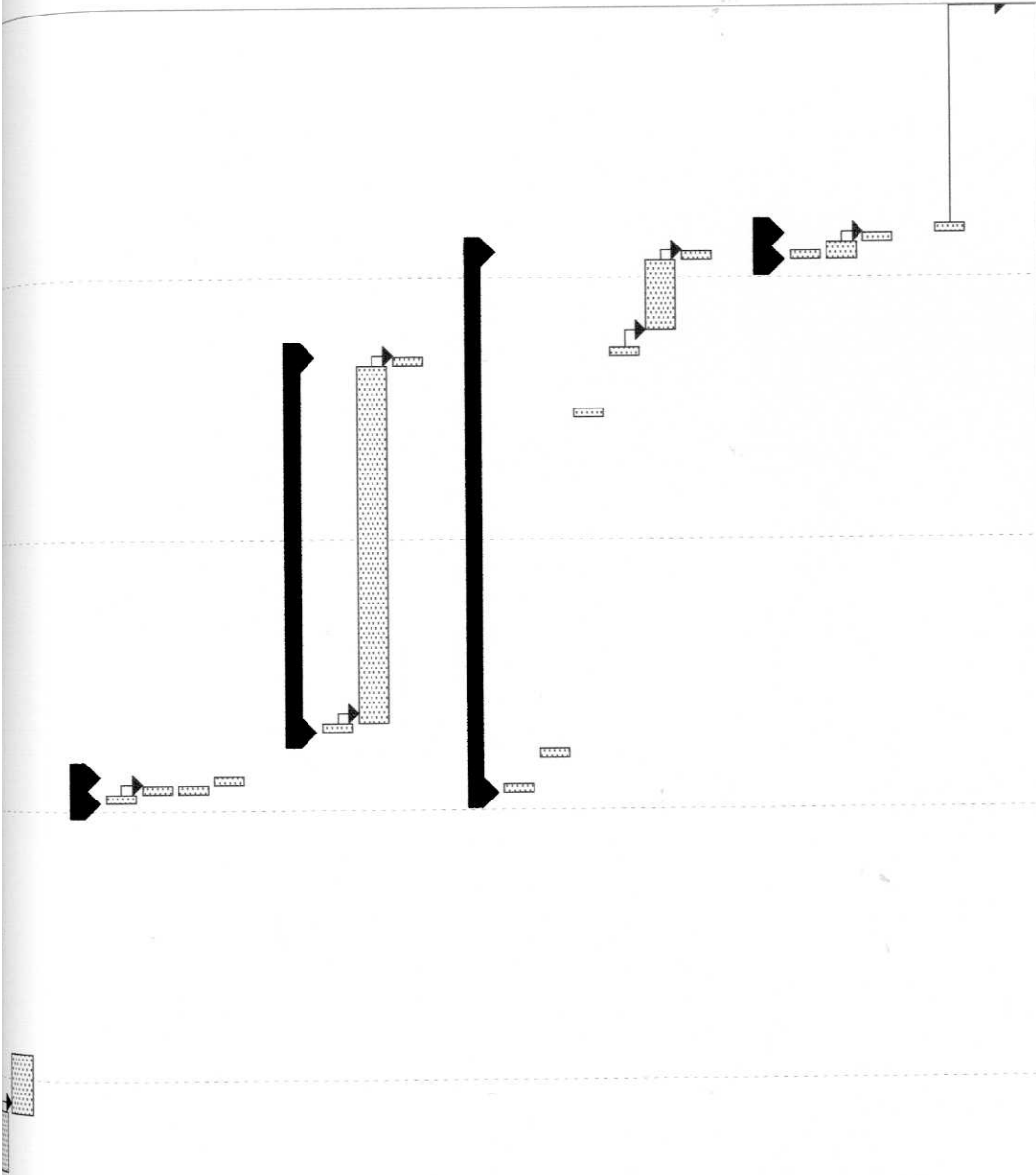Deadline

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Project: Universal Mobile Interfaces; Icon Desig

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Task	Milestone ◆
Split	Summary
Progress	Project Summary

External Tasks	
External Milestone ◆	
Deadline ⇨	

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