In-course Assignment Information Sheet

Human Computer Interaction Assignment
Interface Design Assignment

Subject	:	CT026-3-2-HCI / Human Computer Interaction
Intakes	:	APU/APD2F2402IT(FT),(CE)
Date Assigned	:	8 August 2024
Date Due	:	4 November 2024
Lecturer	:	Assoc. Prof. Wong Bee Suan
Submission	:	Softcopy Only via Moodle

Assignment Overview

You are to complete one piece of intensive course work for the module HCI which is worth 60% of the module overall marks. The incourse work is to be completed as a piece of cooperative and collaborative group work. You need to work in a team of *4 members,* or in *exceptional* cases, 3 members.

You are required to create an interactive **WEBSITE** using any *UX tools* of your choice. Do note that the purpose of this assignment focuses on the *user interface* and what goes into the *entire design process* that will give it a certain look and feel. A fully functional system is *not* expected to be produced.

However, some limited functionality (such as dummy output) is expected in order to demonstrate the ability of the system. Database backend are not necessary.

The Learning Outcomes

This assignment is to test students' achievements of the following:

1. Appreciate a range of human population capabilities and differences that impinge on interface design and use

2. Show awareness of fundamental issues of human computer interaction and cost-effective assessments of usability

3. Apply common techniques in HCI to Plan, Investigate, Model, synthesise and evaluate a small-scale prototype

4. Critically review human and business justifications for system usability

First Part

At the initial stage of this project, the team members are to meet together and brainstorm for this project. As a team, you are required to submit your proposal, which includes the following requirements:

Proposal:
- Introduction
- Objective
- Problem statement
- Proposed solution
- First plan of workload distribution

Deliverable: *You will be expected to 'walk through' your plan with a module tutor during week 3 of the module you will need to make a 10-minute appointment to do this, normally during one of the usual timetabled slots.*

Once this proposal is approved then you and your team can move on to the second stage of the project where design, implementation, documentation and presentation will be scheduled.

Second Part

Your team will engage in the following usability engineering activities to develop the User Interface for the proposed project mentioned above. Please note that this assignment is a *group effort*, requiring collaboration and teamwork from all members. However, the *final write-up* for *each chosen stage* will be the responsibility of *individual team members*, and the marks for this portion will be awarded to the specific individual who completes it.

Usability Engineering Lifecycle Stage	Task Involved for Each Stage
Stage 1: User, Tasks & Environment Analysis	- Stakeholder Analysis - Data Gathering & Analysis - User Profile Table - List of user requirement - Task Analysis
Stage 2: Usability goals, guidelines and Competitive Analysis	- Identifying Usability Goals - Design Principles Mapping with The Usability Goals - Competitive Analysis
Stage 3: Design & Prototype	- Parallel Design (Sketches) - Peer – To – Peer Evaluation - Participatory Design – Card Sorting - Style Guide - Screenshot of Final Prototype design with Strategy Behinds Its Design Justification (Design Rationale)
Stage 4: Formative Evaluation	- DECIDE Framework - Usability Testing - Heuristic Evaluation

You are to implement the final design using a *UX tool* of your choice, conduct usability testing on the design, present your findings and document the entire process.

Complete documentation must be produced to contain *all* the activities that the development team went through in producing the system's interface, as well as a signed workload distribution matrix.

Throughout the development cycle, the team is required to submit **a set of minutes, and a progress report** *every two weeks*. This will be from the onset of the assignment and is to be included as part of the documentation submission.

There will be a ***final presentation*** of final interface design in demonstrating the outcome of all the above process taken.

Marking Scheme

A) Team of Four (4) – [*Group: 40%; Individual Implementation: 60%)]*

Marks will be accorded to the team members for all work in their respective sections. The following are the marks to be awarded to each team member for the work done by the entire group.

Group Component	Marks (40%)
• Proposal	10
• Workload Matrix & Gantt Chart	5
• Progress report	10
• Presentation	15
• Total	40

The following are the marks to be awarded to each team member for the work done for their respective section.

Individual Write Up: Stage 1- User, Tasks & Environment Analysis	Marks (60%)

Critical Discussion and Application of User Requirements: To include
• Stakeholder Analysis
• Data Gathering & Analysis
    o User Profile Table
    o List of User Requirement
• Task Analysis
	60

Individual Write Up: Stage 2 - Usability goals, guidelines and Competitive Analysis	Marks (60%)
Critical Discussion and Application: To include • Identifying Usability Goals • Design Principles Mapping with The Usability Goals • Competitive Analysis	60

Individual Write Up: Stage 3- Design & Prototype	Marks (60%)
Critical Discussion and Application: To include • Parallel Design (Sketches) • Peer – To – Peer Evaluation • Participatory Design – Card Sorting • Style Guide • Screenshot of Final Prototype design with Strategy Behinds Its Design Justification (Design Rationale)	60

Individual Write Up: Stage 4 - Formative Evaluation	Marks (60%)
Critical Discussion and Application: To include • DECIDE Framework • Usability Testing • Heuristic Evaluation	60

Final Marks = Group (40%) + Individual Implementation (60%)

B) Team of Three (3) – [*Group: 40%; Individual Implementation: 60%)]***

Group Component	Marks (40%)
• Proposal	10
• Workload Matrix & Gantt Chart	5
• Progress report	10
• Presentation	15
• Total	40

The following are the marks that are to be awarded to each team member for the work done for their respective section.

Individual Write Up: Stage 1- User , Tasks & Environment Analysis	Marks (60%)

Critical Discussion and Application of User Requirements:
To include
• Stakeholder Analysis
• Data Gathering & Analysis
   ○ User Profile Table
   ○ List of User Requirement
• Task Analysis
	60

Individual Write Up: Stage 2 - Usability goals, guidelines and Competitive Analysis	Marks (60%)

Critical Discussion and Application:
To include
   • Identifying Usability Goals
   • Design Principles Mapping with The Usability Goals
   • Competitive Analysis
	60

Individual Write Up: Stage 3- Design & Prototype	Marks (60%)

Critical Discussion and Application:
To include
   • Parallel Design (Sketches)
   • Peer – To – Peer Evaluation
   • Participatory Design – Card Sorting
   • Style Guide
   • Screenshot of Final Prototype design with Strategy Behinds Its Design Justification (Design Rationale)
	60

Final Marks = Group (40%) + Individual Implementation (60%)

For detailed marking allocation, please refer the appendix.

Appendix

	Individual Component (60%)																		Group Component (40%)					Total
	UI Implementation Towards Chosen Title (60%)																							
	Stage 1: Critical Discussion & Application of User Requirement (60%)						Stage 2: Critical Discussion & Application of Usability Goals & Competitive Analysis (60%)				Stage 3: Critical Discussion & Application of Design & Prototype(60%)				Stage 4: Critical Discussion & Application on Testing (60%)				Proposal	Project Plan – Gantt Chart & Workload Matrix	Progress Report (10%)		Presentation	
	Stakeholder Identification & Justification	Data Gathering selection & Justification	Data Gathering Execution	Analysis & Impact	User Profile Table & Requirement	HTA & Impact	Selection of Usability goals & Justification	Selection of appropriate guidelines and map with the usability goals chose	Complete Competitive Analysis	Impact of the competitive analysis towards the proposed UI design	Parallel Design	Peer to Peer Evaluation	Participatory Design - Card Sorting &	Justification of strategy behind for the Prototype	Decide Framework	Usability Testing Instruction Template	Usability Testing Report	Heuristic Evaluation & Impact			Done by student	Check progress in the class by lecturer		
	5%	5%	10%	15%	5%	20%	10%	30%	10%	10%	10%	5%	20%	25%	10%	10%	20%	20%	10%	5%	5%	5%	15%	100%
Individual 1:																								
Individual 2:																								
Individual 3:																								
Individual 4:																								

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