MONASH University
MALAYSIA

Assignment Sheet

Unit Name	Usability
Unit Code	FIT 3175
Unit Teacher Name	Ts. Dr. Sicily Ting
Assignment Name	Submission 3 (Stage D + E) - High-Fidelity Prototyping And Evaluation Report
Semester	Semester 1, 2023

Learning Outcomes

This assignment assesses the following learning outcomes:

Learning Outcome Number	Learning Outcome Description
3	Design an interface for user diversity and accessibility;
4	Employ user-centred design;
5	Evaluate an interface and interaction design.

Weighting

This assignment is worth [30%] of your overall grade for this unit. Please see the assignment rubric for the weightings of each assessment criterion.

Requirements

This assignment has the following requirements:

Assignment Type	Group Task (15 %) and Individual Task (15 %)
Due Date	Week 11: 11.55pm Friday, 19 May 2023
Submission Process	The submission will contain the individual tasks and the group tasks (put your name and student ID on the individual sheets). Compile all your documents into a **single PDF document** and submit your assignment

	through Turnitin. Please include your group's Task Allocation Form in the appendix of your document. Important to note: 1 **member (representative) of the group** makes the submission (e.g upload the file-> submit). **Every remaining group member also must click 'Submit'** as well, else the submission by the representative will remain as 'Draft' instead of 'Submitted' Submission should be made via the Moodle's Submission Link
Format of the deliverables:	Consider how you would present your materials to a potential client. Your submission must contain the following: ● **Title Page** ● **Table of Contents** ● **Introduction** ● **Group Work - High Fidelity Prototype (Stage D)** a. Implementation process and link to Figma prototype (accessible by the marker) b. Screenshots of all prototype screens c. Description and justification of one design guideline implemented per screen d. Description and justification of three accessibility guidelines implemented throughout the prototype e. Description and justification of one change made per team member from the low fidelity prototype to the high fidelity prototype ● **Individual Work - Heuristic Evaluation (Stage E)** a. Introduction explaining how you evaluated the prototype b. Summary tables of compliances c. Summary tables of violations d. Detailed description of violations and justification of severity ratings e. Conclusion (for individual evaluation) ● **Group Work - Evaluation Summary** a. Discussion of similarities and differences between your and your teammates' evaluations.

	b. Detailed discussion of the 3 most severe violations and recommendations for fixes ● **Conclusion (for prototype/overall evaluation findings)** ● **References (if any)** ● **Appendix** a. Personas/User Stories/Low fidelity prototype screens used from previous submissions (including any explanation of modifications made, eg. based on submission 1/2 feedback) **To note:** Quality over quantity! Make sure your responses to assessment questions demonstrate thoughtful application of theory and processes.
Chat GPT and AI Usage Guidelines	We encourage students to avoid using AI or ChatGPT as much as possible, as there are numerous issues with its output (for example, lack of empathy, making up references or sources that do not exist). However, if you do use it, the following guidelines should be followed: ● Include a reference/link to the AI tool you have used. ● Include the text prompt you entered to generate the output. ● Explain how you modified the original output before submission. ○ Any text content generated by ChatGPT should not be submitted 'as-is'. We expect that students reflect on, edit and refine the output to ensure it is suitable, complete and addresses the relevant assessment criteria. Please note that being caught passing off content generated by AI technologies as your own work, without proper acknowledgement, is a breach of academic integrity

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Assignment Instructions

Overview

There are three parts to this assignment:

- **Part 1:** design a high fidelity prototype
- **Part 2:** conduct a heuristic evaluation of your prototype and;
- **Part 3:** discuss your evaluation and recommendations for fixes as a group

Part 1: High fidelity prototype (Stage D) (Group Task 15%)

In this stage you will come back together as a group to design a high fidelity interactive prototype based on your low fidelity prototype screens. You can share your sketches from Submission 2 and discuss their benefits and limitations. Decide on a final sketch idea derived from different requirements of the solution and design a high-fidelity interactive prototype using Figma (https://www.figma.com/).

Important: Please be aware that Figma is the only prototyping tool that will be accepted to complete this assignment deliverable.

The Week 8 tutorial will provide a brief introduction to Figma and Week 9 tutorial will cover the Heuristics evaluation.
More information on how to use Figma can be found in Figma's help and documentation page here.

The prototype will include:

- A **high fidelity interactive prototype** of 2 screens per group member (e.g., 6 screens for groups of 3, 8 screens for groups of 4, etc.), one of which **MUST BE** the homescreen (do not include a login screen - assume the user is already logged in).

  Note: All team members should collaborate on all screens in Figma (ie. it should not be a case of one person doing two screens by themselves, another person doing two other screens by themselves and so on).

- The prototype should involve **at least 2 different previously defined requirements** (either from the assignment Project Brief or from your user analysis submission 1) and it should be at least 2 layers deep (see diagram below).

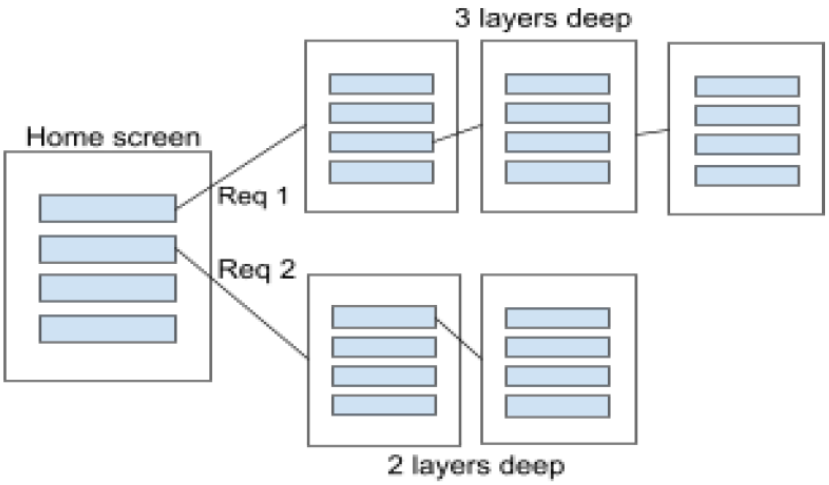

Figure 1: Layer structure showing depth of navigation layers for two different requirements.

- Make sure you think about the application of guidelines, principles and theories (any from the unit e.g. navigation and menus guidelines, visual principles, Norman's principles, Shneiderman's 8 Golden Rules etc...) you have learned throughout the unit, as well as your personas, user stories and storyboards.
- Your prototypes should consider at least 3 accessibility guidelines as part of the design (e.g., contrast, scale, font size, alternate descriptions, etc.)
- The prototype must be interactive. The interaction includes navigation between the screens, and the navigation within a screen through interacting with UI elements such as buttons and lists that are relevant to the chosen requirements.
- You **DO NOT** need to include advanced scripting such as data processing or calculation.
- Each screen should reflect a close-to-final version of the user interface. Screens must include click interactions to facilitate navigation between screens.

Report:
You also need to write a report about your prototype and your design process, decisions and accessibility considerations (more details below).

Note: make sure you use images/pictures with no copyright restrictions. All images sourced online must be referenced (no need to follow APA style if you are not familiar with it but need to provide the link/detail to it) in the report.

Part 2: Prototype Evaluation (Stage E) (Individual Task 15%)

Is your prototype solution to the problem a success? Is it a good solution? Does it have good usability? In order to assess the usability of your design, **each member of the team, independently**, will perform a Heuristic Evaluation following **Nielsen's 10 heuristics model**.

- For each of Nielsen's 10 heuristics you will identify one example, which is either a compliance or a violation. You must identify **at least two violations** in your evaluation.

  For your violations:

  a. Provide the **severity rating** between 1 and 4 (0 means no violation).
  Remember: severity is rated by taking into account the following factors that contribute to the severity of a problem:
     - its **frequency** of occurrence (common/encountered by many users or rare/encountered by only a few users)
     - its **impact** on users (easy or hard to overcome), and
     - its **persistence** (does it need to be overcome once or repeatedly).

     Though you are doing this individually so the frequency may be difficult to determine (as you cannot survey a large number of users), you can still make assumptions about how common the problem is from previous experiences and mention this in your evaluation.

  b. Provide a recommendation that will address the problems related to the violations and significantly improve the usability of the product.
  c. Explain how the design choices involved in your prototype support the compliances you found.

Report: You also need to write your individual evaluation as part of the report (more details below).

Part 3: Evaluation Summary (Group Task, included in Part 1's marks)

After you have all done your individual heuristic evaluations,

- discuss the overall recommendations of your evaluation outcomes with your group members. Did they find similar/different issues? Did they provide similar/different recommendations?
- Write a brief analysis about your evaluation (more details below).

Submission 3 - Deliverables

Compile your work from Submission 3 deliverables into a single document. The final document should contain:

1. **High fidelity interactive prototype (group report, max 1000-1200 words for groups of 2-3 or 1200-1700 for groups of 4-5, excluding images. This**

word count also includes the group evaluation summary and overall report conclusion):

a. A short paragraph that describes the implementation process of your high-fidelity prototype and a link to where the team's interactive Figma prototype can be tested online (must be viewable to anyone at Monash with the link).
   i. Your description of the implementation process should explain the stages you have gone through to design and create your prototype, ie. what you have done for previous submissions, how you developed your Figma prototype based on this other work and challenges you faced during the process. You must also mention what requirements you have chosen to implement on Figma.

b. A screenshot of each screen from your prototype (screenshots should correspond to your prototype screens; i.e. no changes to the Figma prototype will be accepted after submission)
c. Provide a description and justification of ONE design guideline followed for each screen (the guideline must be different for each screen)
d. Provide at least ONE change per group member your team made to improve ideas from the Submission 2 prototypes, and explain the reason for each change and improvement. Clearly state where these changes have been made by showing the screenshots of the low-fidelity and high-fidelity prototypes for comparison and clearly mark these changes in both screenshots.

To note: Justifications can make use of any guidelines discussed during the semester such as guidelines for navigation, menus, graphics, colour, icons, typography, grouping and accessibility…

2. Heuristic Evaluation Results (individual report, 500-700 words max excluding images and compliance/violation tables):

a. Introduction - A short introduction (a paragraph) that mentions how you explored the prototype for evaluation, and discusses why Nielsen's heuristic evaluation will help identify potential usability issues with your selected task.
b. A summary table of compliances – a summary of compliance instances, including the heuristic rule number, and the evidence, as shown below (include annotated screenshots).

#	Instance of Compliance	Heuristic Rule	Evidence	Design Choices justification

1	Here you need to provide a very brief description of the instance and how it is compliant with the rule (a phrase, not a sentence)	rule number, e.g. #3	Here you need to provide the figure number and its caption (e.g. Figure 1… below). You could include more than one figure details.	Your justification of why this instance is compliant with the Heuristic Rule.
2				

Table 1: A summary of compliance instances

c. A summary table for violations – a summary of heuristic violation instances, including the heuristic rule number, evidence, severity ratings, and recommendations to address the problem, in a table as shown below (include annotated screenshots).

#	Instance of Violation	Heuristic Rule	Evidence	Severity Rating	Recommendation
1	Here you need to provide a very brief description of the instance and how it violates the rules (a phrase, not a sentence).	rule number, e.g. #3	Here you need to provide an annotated screenshot. You could include more than one figure details.	A severity rating e.g. 2	Here you provide a very brief description of the recommendation (a phrase, not a sentence)
2					

Table 2: A summary of violations and recommendations

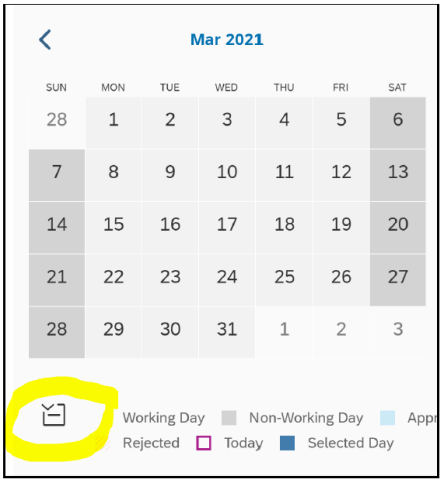

Figure 1 - example of compliance/violation.

Note: Your evaluation must address all 10 of Nielsen's heuristics. You may have any combination of compliances and violations as long as at least 2 violations are identified. You must identify one unique example per heuristic, ie. the same example/element cannot be used for multiple heuristics.

d. A description of the violations identified and justification for the severity ratings.
e. A conclusion for your individual evaluation, summarising the main findings.

3. Group Evaluation Summary:

a. A brief (1 paragraph) discussion of the similarities and differences found in each other's evaluations. In particular highlight gaps in severity ratings.
b. A detailed discussion of what your group considers to be the 3 most important/severe violations and the best recommendations on how to fix these problems moving forward.

4. Overall report conclusion:

a. discussing, summarising and highlighting the main points/recommendations, challenges faced during the evaluation and key findings of evaluating your high-fidelity prototypes.

Report Format : Refer to page 2 on Format of deliverables