FIT5152 Usability - S2 2023

Submission 3 - High Fidelity Prototype and Evaluation (30%, Individual and Group Work)

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 (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/).

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

The Week 9 tutorial provides a brief introduction to Figma. 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. The number of screens will consist of **2 screens per group member** (e.g. 6 screens for groups of 3, 8 screens for groups of 4, etc.), but one of the screens **MUST BE** the **home** screen (do not include a login screen - assume the user is already logged in). **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 brief or from your user analysis submission 1) and it should be **at least 2 layers/screens deep** for each requirement (see diagram below).

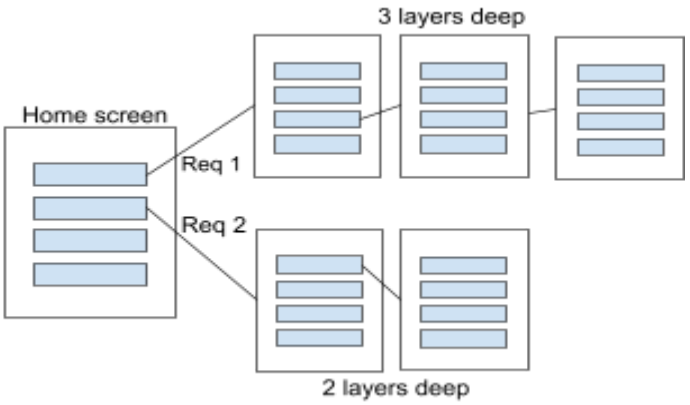

Figure 1: Layer structure showing depth of navigation layers/screens for two different requirements.

- Make sure you think about the application of guidelines, principles and theories (any from the unit e.g. navigation and menu 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 elements as part of the design, and how they comply with 3 different WCAGs (accessibility guidelines). These accessibility guidelines should be **in addition to** the other general design guidelines and principles.
- 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 in the report.

Part 2: Prototype Evaluation (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 Neilsen'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 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 words 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 - if the grading TA does not have access to your prototype then there will be a 5% penalty)**.
        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. Nominate **1 design guideline/principle per screen** and justify how it has been applied to your designs. These guidelines/principles should be drawn

from a wide variety of the unit material. You also need to explain how **3 WCAGs** have been applied across your prototype.

c. 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 based on the different principles/theories discussed in this unit. 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.

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).	The rule number e.g. #3	Here you need to provide an annotated screenshot. You could include	A severity rating e.g. 2	Here you provide a very brief description of the recommendation (a phrase, not a sentence)

			more than one figure details.		
2					

Table 2: A summary of violations and recommendations

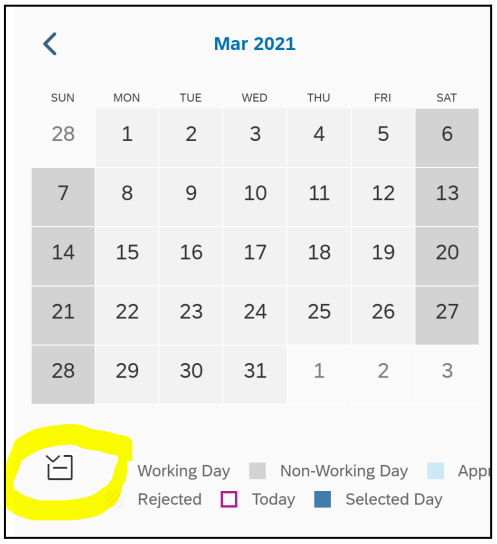

Figure 1 - example of compliance/violation…

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 discussion of what your group considers to be the 3 most important/severe violations and suggest detailed recommendations on how to fix these problems moving forward.

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

Report Format:

Title Page

Table of Contents

1. **Introduction**

2. **Group Work - Prototype**
    a. Implementation process and **link to Figma prototype (accessible by the grading TA)**
    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
3. **Individual Work - Heuristic Evaluation**
    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)
4. **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
5. **Conclusion (for prototype/overall evaluation findings)**
6. **References (if any)**
7. **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)

Submission Guidelines

You will upload and submit your assignment report **as a PDF document** to Moodle.

You **MUST** also **submit your report to Turnitin** that is included in the submission link.

The name of the report file should follow this format: **FIT5152Subm3-GroupNumber**
A task allocation form and a peer evaluation will be completed by team members for the submission. This allows each team member and the teaching team to analyse team performance and contribution in group tasks.

Ensure that the Figma link you provide is accessible by everyone with the link so that we can grade your prototype. **If we cannot access your prototype, then there will be a 5% penalty.**

Submission Due Date

This assignment is due at 11.55pm, Friday 3rd November (Week 14).

Late Submissions

Late Assignments or extensions will not be accepted unless you submit a special consideration form and provide valid documentation such as a medical certificate prior to the submission deadline (NOT after). Otherwise, **there will be a 10% penalty per day including the weekends.**

Plagiarism - PLEASE NOTE.

Before submitting your assignment, please make sure that you have not breached the University plagiarism and cheating policy. It is the student's responsibility to make themselves familiar with the contents of these documents.
Please also note the following from the Plagiarism Procedures of Monash, available at http://www.policy.monash.edu/policy-bank/academic/education/conduct/plagiarism-procedures.html

Plagiarism occurs when students fail to acknowledge that the ideas of others are being used. Specifically it occurs when:

- other people's work and/or ideas are paraphrased and presented without a reference;
- other students' work is copied or partly copied;
- other people's designs, codes or images are presented as the student's own work;
- Lecture notes are reproduced without due acknowledgement.

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.

- If used, ChatGPT should only be used to supplement small portions of your work. It should not be used to complete large portions of your assignment

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.