Lab #4

Prototyping Design.

Developing High-Fidelity Prototypes.

Objectives:

- Understanding phases of UX design development
- Understanding the objectives of the prototyping stage of UX design
- Getting practical experience in developing high-fidelity prototypes using prototyping software
- Creating high-fidelity prototypes for an information system (web application or mobile app).
- Understanding the purpose of the interactive prototype development.
- Getting practical experience in testing prototypes and iterating the design based on usability testing.

Procedure:

In **this lab**, teams will complete the third stage of UX design process, i.e. **prototyping. Prototyping** is an essential part of the design process in digital system design. At this point of the UX design process, we will need to **visualize** our ideas. Prototyping provides an effective way of doing this to share our vision of the system with the team, with users and with client audience.

Prototyping will limit the expenses of development, allow testing the design concepts **before** producing a **final version** of the system, reveal areas that need improvement, and allow resolving usability issues before the actual development of the system.

A **high-fidelity prototype is close to the final product**, with **visual details** and **functionality**.

In the previous lab, we have already developed, tested, and iterated UX design of our systems using low-fidelity prototypes sketches and wireframes.

These low-fidelity prototypes defined the information architecture, navigation, and content of the pages (screens) of the system.

In this lab, we will continue to **develop prototypes** that are more tangible:

- **mockups** that are **graphic representations** of the applications (added **fonts**, **colors**, **text**, **logos**, **images**, and everything else that enhances the wireframe and improves its shape).

Mockups demonstrate basic functionality, represent information structure, and visualize content in a **static way**, allow users to reflect on the **visual aspect** of the project

- **high-fidelity prototype** is a mockup enriched with **UX pieces**, **interactions**, **animation** and anything else you'd like to experience when clicking buttons.

High-fi prototypes provide:

-**realistic and detailed visual design**: all interface elements, spacing, and graphics look just like a real app or website;

- **real or similar-to-real content** (includes most or all of the content that will appear in the final design;

- **highly realistic interactivity**.

From a user testing point of view, a high-fidelity prototype is close enough to a final product to be able to **examine usability questions** in details and make strong conclusions about how the user will interact with the system during the completing a task.

Testing during prototyping phase and **gathering feedback** is an essential part in the user-centred design processes.

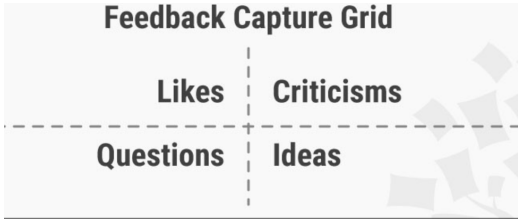
The following testing techniques can be used for effective usability testing prototypes:

A/B testing, **guerrilla usability testing**, **heuristic inspection**, **feedback capture grid**, **"I Like, I Wish, What If"**

A/B testing is comparing and measuring performance of two different versions (a webpage, a screen, elements, layouts, strategies, ads, ...). To measure performance: you can prioritize conversions, downloads, or some measure of user experience (targeted actions, registrations, purchases or page view, engagement, time on site, or user satisfaction).

To conduct A/B testing:
formulate a hypothesis;
identify targets;
select one test item: headings and subheadings (length, content, location), CTA (length, content, location), buttons (color, size, location, text), images (size, content, location), text on page (length, content), forms (location, size, number of fields);
conduct the test; collect the results; analyze the results.

A **"Feedback Capture Grid"** is a way to organize the users feedback during the testing sessions.



An "**I Like, I Wish, What If**" method is a structured feedback during the interview after the prototype testing (what users liked about the prototype, how the prototype can be changed or improved, new suggestions or ideas).

Continue working in the assigned groups.
Each group will develop and test several prototypes of UXs of systems that will improve existing practices from the perspective of usefulness, usability and satisfaction.

1. Developing Mockups.
Utilizing the wireframes from the previous lab, develop the **system mockups** for the pages (screens) constituting the major flow(s) for the system.
Mockup will provide a medium-fidelity representation.

Add colours, fonts, text, images, logos and other components that will shape your wireframes. Refer to the **visual design principles** (**colors, typography, images**).

2. Test the mockups using appropriate **usability testing methods (guerrilla usability testing, feedback capture grid,** etc.).
Based on the gathered feedback from testing, develop **new iteration** of your **mockups** solutions. Iterate the design working through several mockups and testing sessions.

3. Developing High-fidelity Prototypes
Using one of the **scenarios (task analysis or user journey map)** created for the previous labs and the **latest system mockup** develop a **clickable prototype** of the you are designing.
The **prototype** should have **interactive features**, although it does not have to be a working prototype.
Use your choice of **prototyping software** to create **high-fidelity prototypes**.

4. Test your prototype using appropriate methods (**guerrilla usability testing, usability testing, A/B testing, problem discovery, and competitive usability tests techniques**).
The results of your testing activities may include **effectiveness ratio**, **efficiency ratio** (time on task, number of clicks), **survey-style data**, **written user comments**, **user video**, **audio**, **screen recordings**, **observation notes**.
Iterate the UI design working through several prototypes and testing sessions.

5. Proof of Concept Video.
Create a **POC video** that shows the **various features, functionalities** of the system, in one or several scenarios. Use persona(s), user journey, and scenarios from your previous lab to show your primary target audience, background story and the current context for the proof of concept. Define the task statements that lead to the goal(s).

6. Write a group report reflecting on 1 - 5 steps on prototyping stage.

7. Create a presentation (20 min) describing your system.

Provide a detailed walk-through that carefully explains how your prototype allows your user to complete your scenario of use.

Include sketches, screenshots, visual media to accompany your written description of your prototype.

Present a design rationale explaining the choices you made when developing your prototype system. Explain why you believe the user will be able to use your prototype to complete your scenario of use.

Briefly describe what you might do next: what changes would you make to your prototype design.

What did you learn from making this prototype that would help you improve it in the future?

Submit your group report, presentation, prototype, and POC video via Moodle.