Lab #2
User Research. Requirements Gathering.

Objectives:

- Understanding phases of UX design development
- Learning and applying requirements gathering techniques in designing novel UI.
- Learning and implementing methods for organizing qualitative and quantitative data.
- Understanding and implementing data analysis.
- Utilizing methods and techniques for effective implementation of UCD.

Procedure:

In this assignment, you will be **working in groups**.
1. As a group, **select a topic** for **UX design project**. This lab and following labs will be the parts representing the phases of the project.
For the selected topic, your **goal for the project** will be **designing an interface** for an information system (a website, a mobile app, a desktop application)

For the project, each group will work on several labs through the following phases of UX design:
gathering requirements and analysis
designing alternatives
developing prototypes
evaluation

2. In **this lab**, the teams will complete the **first phase of UX design**, i.e. **gathering requirements and analysis**.

Your project will **start with learning the domain space of the project**, **user research**, **gathering requirements and analysis**.

As a team:

1. Research on the **problem domain** (background information on the topic and feasibility of the project).

2. Identify the **goals** for the project.

3. Identifying **functional and non-functional requirements** of the system.

   Discuss and document the requirements of the system.

4. Conduct expert evaluation of the existing systems (competitor benchmarking: **cognitive walkthrough, heuristic evaluation** of the existing system against 10 heuristic NNG principles). *Can use team members' reports from lab 1.*

5. Conduct user research: **who the users are**. Conduct usability testing of existing system(s) (**guerrilla usability testing**).

   Reflect on current practices: when, where, why, and how users are currently accomplish the similar tasks.

   User **wish list** for improving how they currently accomplish their task.

6. Use combinations of methods for gathering requirements and user research (**observations, surveys, focus groups, interviews**).

7. Present results using **descriptive statistics**, **user characteristics tables**, and creating **personas** techniques.

8. Identify **primary**, **secondary**, and **tertiary users** of the system.

9. Using two of the **analysis techniques** (**scenarios**, **use cases**, **hierarchical task analysis**), refine the task.

10. Combine your findings from the steps 1- 12 into a report for the requirement gathering phase of the current iteration.

    Describe the actual methods and techniques you used for RG, data representation and analysis.

    Be selective with your findings, only use those of importance for your discussion. The way you present your results should correspond to the selected method and your outline of the research and evaluations.

11. Incorporate to the report related documents (photo shots of the whiteboard from your ideation meetings, samples of surveys, statistics analysis, sample notes from the interview, scenarios, personas, etc).

12. **Submit your group report as a pdf file RG_phase_report.pdf via Moodle.**

Resources and Tools:

[RG, Analysis, Ideation Techniques](#)

[Protonote](#) - tool to capture feedback

[Diigo](#) - capture and share annotations for webpages

[SurveyMonkey](#) - online survey tool

Field Studies
UX is context-dependent, it is often recommended to examine it in real life situations whenever the circumstances allow it.

Surveys
Surveys can help developers to get feedback from real users within a short time frame.

Expert Evaluation
At this phase of system development, expert evaluation will be used to examine existing competitors' systems against usability heuristics. It is beneficial to run expert evaluations always before the actual user study.

Mixed Methods
Using several different methods allows to collect rich user data. For example, it is beneficial to combine objective observation data with the user's subjective insights from interviews or questionnaires.

Guerrilla Usability Testing
Guerrilla Usability Testing. Usability testing involves asking people to use something and observing what problems arise from using it. It can be used to test websites, mobile apps, and software.
Usability testing can be conducted at any time in the User Centered Design (UCD) process but most beneficial usability testing happens at early stages of the project.
Usability testing happens more than once during a project. Usability testing may be used to benchmark an existing site initially and then again later in the process to validate a new design approach.

User Scenarious
User Scenarious are short stories of persons who use a system with a certain motivation and a specific goal in mind. A good user scenario includes all information that is relevant to the process the user undergoes in order to complete a task.

Personas
Personas is a fictional representation of your user. A persona is generally based on user research and incorporates the needs, goals, and behavior patterns of your target audience.
> Xtensio
> Make My Persona by Hubspot
> Up Close & Persona
> User Forge

Suggested topics for an interactive system (website or mobile application):

1. System that allows college students to create and participate in study groups for effective and efficient learning and examination preparation.

2. System that helps local residents and tourists discover, enjoy and visit attractions in the Kelowna area.

3. System that gets people who often do not get out into nature, to discover, appreciate and visit Kelowna trails and parks.

4. System that helps people to keep track of their daily personal finances.

5. System that supports an organization or club of your choice in recruiting new members.

6. System that supports and encourages people to act in environmental friendly ways.

7. System that helps people changing habits.

8. System that encourages people to drink responsibly.

9. System that supports communication with other members of traffic while in a car.

10. System that helps elderly people to improve their social life.

11. System that encourages people to push their limits in a sport.

12. System that helps elderly keep track of things to do and things to come.

References:

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Designing the User Interface: Strategies for Effective Human-Computer Interaction, Ben Shneiderman, Catherine Plaisant, Maxine Cohen (2016), Pearson

The Design of Everyday Things, Don Norman (2013)

"Practical UX Methods" UX Methods, Http://tonic3.Com/, practicaluxmethods.com/.