Research Plan

Responsive Design



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Problem Description

Web applications have become an essential tool in today's digital world, and users expect a seamless experience across different devices. Responsive web design is critical to ensure the application's usability and accessibility across devices. However, developers often struggle to create responsive designs, particularly using CSS.

Therefore, the problem is to understand how to create a responsive web application design using CSS to enhance user experience across different devices.

Research Questions

Main Research Question:

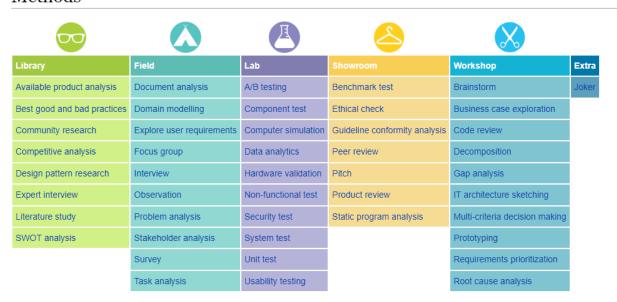
How can web developers make their web application design responsive via CSS?

Sub-questions:

- 1. What is responsive design, and why is it important?
- 2. What are the fundamental concepts and principles of responsive web design?
- 3. How can CSS frameworks be used to create responsive web designs?
- 4. What are the best practices for using media queries to create responsive web designs?
- 5. What are the common mistakes to avoid when creating responsive web designs?
- 6. How can the performance of responsive designs be optimized?

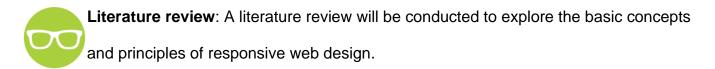
Research Methods

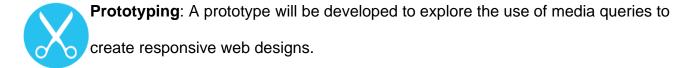
Methods



The entire research process will be conducted following the guidelines of the DOT research framework. This framework will provide the necessary support to deal with the research related to an ICT project.

The chosen strategies for this research are:





Expected Deliverables

The research will deliver a set of basic principles and techniques for creating responsive web application designs using CSS. The research findings will be presented in a written report, including examples and tutorials to guide a developer in implementing responsive design. Additionally, a set of guidelines and best practices will be created for creating responsive web designs that are optimized for user experience and performance. Overall, the research aims to provide practical guidance on how to create effective and responsive web designs.

- Technical report

Time Estimation

The expected time frame for conducting this research is 3 weeks (1 sprint).