Portfolio Report

COS30017 - Software Development for Mobile Devices

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1. Overview

2. Evidence

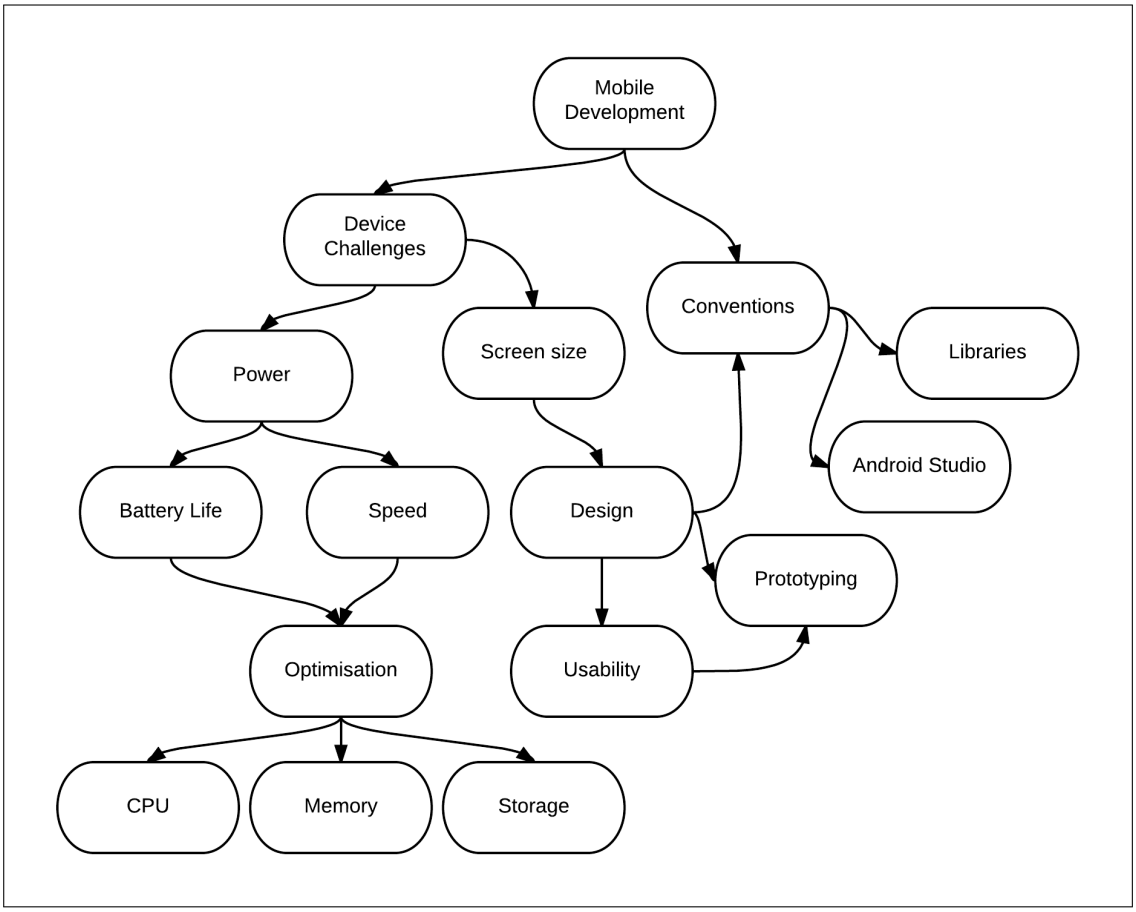
- = *in progress*

Assessment	Completed
Core Assignments (for Pass)	✓
Extension Tasks (for Credit)	✓
Custom Application (for Distinction)	-
Research Report (for HD)	-

Project brief has been submitted for custom application and I also intend on completing the HD research report as well.

3. Reflection

3.1. Concept Map



3.2. Mobile Application Development Process

The process to developing a mobile application is in a lot of ways a combination of web development and conventional desktop application development. From desktop application development comes the usual development methodologies such as agile, scrum etc., which are proven in providing a good and reliable framework for delivering applications. The web development processes that are also inherited by mobile development are those of iterative app design, user interface and usability testing, and then heavy design implementation.

At a high level the resulting process for designing mobile applications is as follows:

1. Ideation - Exploring the app's idea, what it will do, features etc.

2. Exploration - User stories/scenarios, constraints, UI sketches and heuristic evaluation.
3. Initial Clarification - Navigation flow, hi-fi prototype and usability test.
4. Executable Prototype - Create prototype, validate the app.
5. Iterative Development - Continue developing features, run usability tests and other validation methods to assist with refining.

3.3. Analysis and Problem Solving Approaches

3.4. Comparison and Contextual Placement

3.5. Generalization

3.6. Challenges in Mobile Development

The combining of these two different development domains creates some interesting challenges in mobile development. One aspect of Android development in particular that's accentuated heavily on is the concept of 'Convention over Configuration', and this is apparent when using the newest Android integrated development environment, Android Studio. Every part of an Android application has it's place in the structure of the project, to the point where if it's not in that location, then the app may not compile correctly. Anything to do with layout, design, dimensions, string constants and much more must be placed in their respective directories and xml files within the 'res' directory, whereas any application logic needs to go in the 'java' directory.

3.7. Explorations