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ANDROID DEVELOPER PRODUCT

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Literature Review

0.1 Abstract

Constant demand for Android mobile applications and relatively easy access to the market have been drawing developers into mobile application development. Derivco, a game development company initiated a website project E-Sports Portal. In this project, a mobile application is needed to be developed and background research should be done in the area of software engineering, different platforms and design principles. This literature review aims to cover these areas in general and provide a starting point in developing mobile application.

0.2 Introduction.

E-Sports Portal is a website project that is being developed to facilitate and organize e-sports leagues. In order for an e-sports team to upload their match results to the website, a mobile application is needed to capture the results and upload to the website server. When starting a mobile development, few questions may be raised. What differentiates mobile application development and traditional application development? What options are available? What are the important design principles for mobile application? These questions are answered as each literature is reviewed in the following sections: software engineering issues in mobile development; comparison between native application and mobile web application; iOS and Android operating system; and human-computer interaction in mobile.

The following papers and a book have been chosen to be reviewed in each section: Paper 1 - Software Engineering Issues for Mobile Application Development[1] Paper 2 - Mobile Application Development: Web vs. Native[2] Paper 3 - Smart Smartphone Development: iOS versus Android[3] Book - Mobile Interaction Design[4]

0.3 Software Engineering Issues in Mobile Development

Software engineering for mobile application shares similar practices with traditional application. However, paper 1 pointed out some of the issues that needed to be addressed specifically in mobile development. Paper 1 - Software Engineering Issues for Mobile Application Development[1] , the paper introduced several points that are different in mobile applications from traditional applications. The first point was the potential interaction of applications between each other.

0.4 Web vs. Native Application

Before going into different mobile operating systems, it would be worth considering mobile web application versus native application. Depending on the type of application, mobile web application could simplify the development in terms of time and cost. Paper 2 - Mobile Application Development: Web vs. Native[2] The article started with the argument developers cannot develop for every platform.

0.5 iOS and Android Operating System

Today, there are at least five important platforms (iPhone, Android, Blackberry, Windows Phone, Symbian)[1], but detailed examinations.

References

- [1] Wasserman. *Software Engineering Issues for Mobile Application Development*, 2010 [March 8, 2018].
- [2] Charland, A., and Leroux. *Mobile Application Development: Web vs. Native*, 2011 [March 10, 2018].
- [3] Goadrich, M. H., and Rogers. *Smart Smartphone Development: iOS versus Android*, 2011 [March 10, 2018].
- [4] Jones, M., and Marsden. *Mobile Interaction Design*, 2006 [March 10, 2018].