

CS Masters' Thesis Defense

Title: *Comparing performance of applications written in native SDK, web phone frameworks and HTML5*
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Abstract:

There are basically three smartphone application development environments to build an application.

1. Software development kit provided by native platforms
2. Web frameworks created over the native SDK which supports multiple platforms.
3. HTML5 with javascript frameworks and CSS3

Recently, companies like PhoneGap, Appcelerator and MotherApp have started to release the web frameworks created for smartphone application development environments. Many Web developers can take advantage of these frameworks and build their application once and use it in many platforms like Android, Windows Mobile, iOS, PalmOS etc. This allows them to develop an application in their native environment without learning SDKs of these platforms.

This purpose of this thesis project is to compare the performance of applications written over these three development environments for the Android platform. Applications can be compared in three basic areas: algorithmic speed, graphical performance and database performance. Applications focusing on each of these areas were written to test the performance of the different development environments. The results of the tests will give an idea to choose which environment to be used based on the requirements of an application which can be either be cost effectiveness and ease of development or performance.
