Code Convertor For Portability of Applications For ANDROID & iPHONE

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Abstract - With all the latest technologies and techniques being implemented, Cell phones are no more used for just calling or messaging. They are at a stage where they can be used for doing almost anything and everything. The leading cell phones in today's tech-race are the Android phones and the iPhones of Apple. These two are leading the market when it comes to phones with latest and leading technology.

iPhone applications are developed in Objective C language while Android applications are developed in Java. Due to the current restrictions and differences between iPhone and Android platforms, applications that need to be deployed on both the platforms need to be developed twice. This involves double effort and time. Hence, there is a rise in demand, for Java to Objective C translator. This translator will allow an application to be developed only once but deploying it on both the platforms, i.e. iPhone and Android. Whenever any new application is to be developed, its application code along with the translation details are sent to the translator. If the application to be developed is for an iPhone, then the translator will refer to the Objective C library and generate a respective Objective C code for that application. If it is to be developed for an Android phone, then the translator will refer to the java library and generate java code for that same application. The generated code will then be sent to be implemented on the required platform. This would help in reducing the development time and energy.

Languages that will be used to implement this technique are Java, for the translator and Android, and Objective C for the iPhone.

I. INTRODUCTION

Whenever a developer has to create a new software application for smart phones, he will simply have to code it once, and using the FONEGAP, he can convert the application code so as to run it on both platforms, ios as well as Android.

II. DRAWBACKS OF THE CURRENT METHODOLOGY

The Traditional interfaces have some crossplatform related problems as :

1. The previous interfaces were not able to achieve all the native behavior of all the phone models.
2. There was a limitation that phone specific applications were not completely modularized to work on specific phone.
3. The same code can't be used for any other phone some modifications were required.

The new interface have a fairly good efficiency but the search for a more efficient method is still an area of exploration.

III. Objective of Proposed INTERFACE

This Translator will allows an application to be developed only once and deployed on both, iPhone & Android platforms, without any changes Simplify development and coding of applications to be deployed on the above mentioned platforms. Mobile platform specific applications can also be translated for multiple platforms.

IV. INPUT SPECIFICATION

Description and Priority

The system allows an application developer to create his application, and then via the utilities of the system convert them into the required code format to support any of the two required mobile platforms.
The system will also ask the developer to enter the conversion specification, on the basis of which, the final code format will be decided. The system will access the two language libraries, namely Java language library and Objective C library, as per required to generate the final code with respect to the conversion specification. The system converts the code and then dispatches it to the developer to be implemented on the required platform.

Stimulus/Response Sequences

User will provide the application code with the code conversion specifications. The system uses Java and Objective C librarys .

Functional Requirements

Application code written in Java Language.
Conversion details.

V. SYSTEM IMPLEMENTATION PLAN ::

The system mainly contains two components that are to be implemented. Firstly the convertor that converts the developed code into the required code format. Second, the two language libraries, namely the Java language library and the Objective c library, that help in code mapping.

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VI. SOFTWARE QUALITY ATTRIBUTES :

The application has the ability to adapt for mobile phone that supports Android or iPhone. It also gives justice to the other important quality attributes such as

Correctness,

 Flexibility,

Maintainability,

Robustness,

Reliability
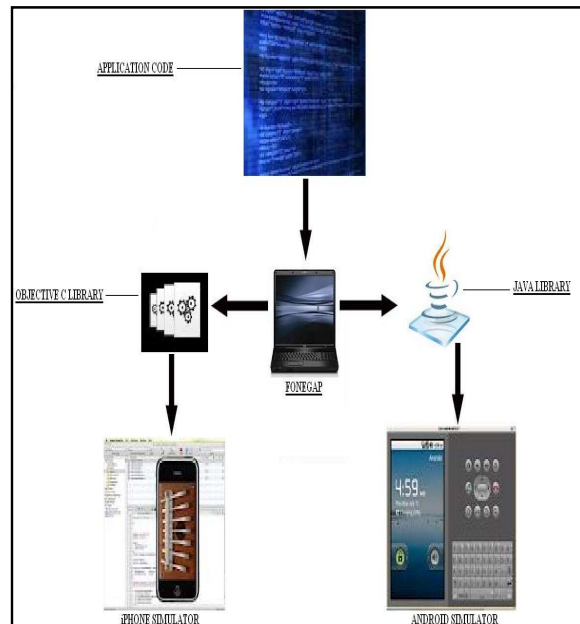
Main System Architecture

VII.CONCLUSION AND FUTURE WORK

Can be extended for other quickly developing platforms like Blackberry. Mobile platform specific applications can also be translated for multiple latforms. Currently, a single call from the call log in an iPhone cannot be deleted like in other phones. Instead the whole call log has to be deleted. Thus, using our proposed interfacing technique this problem can be tackled.

VIII. APPLICATIONS

1. The Fonegap itself is an application software which helps acquire a code suitable for the two mentioned platforms.

2. It can also be applied to various other software systems which demand such conversions.

3. It can also be implemented to overcome the drawbacks of the two mentioned platforms with respect to their phone specific applications.

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