News Application Based on Cordova.

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**ABSTRACT**

Applications for smartphones, mobile apps are in a stage where they have to exist on multiple platforms in order to reach out as many users as possible. But single application to run on multiple platforms different programs need to be implement. Cross-platform development uses common programming languages that smartphones implement like HTML, CSS and JavaScript. After using cross-platform for developing app it becomes hybrid app. We are developing a news app based on Cordova cross-platform. The basic concept is to build cross platform application in which multiple users can post the news about different categories. There will be an administrator who will approve or disapprove the news and then it will be uploaded to the server. There will be multiple sub-administrators, they also can approve or disapprove the news and can post the news.

**Keyword:** Ionic framework, Cross platform, Cordova plug-in.

1. **INTRODUCTION**

With the increasing popularity of mobile devices, the conventional of not exist system together without any barriers between mobile platforms. In cross-platform software development, there is not included set of devices which are standard, if we want to develop any native applications then there should need to provide and built their native application programming interface of each platform for run their applications. Actual, for fulfill this all requirements, development cost is high. Now, programmer must want to achieve goal that is write one code and that should able to run everywhere with estimating less cost. News application is more essential, but there is not providing requirements can be reused to various widespread mobile on the market at present. In existing news apps users cannot post news. The proposed system provide features to post news. Cross platform enables developers to build applications using web languages instead of native languages since the front end of application is built using web technologies, with the exact same source code can be deploy across different platform. Cross platform does not require any os specific application programming interface. Cordova is hybrid application development technology. Cordova almost support all operating system. Software is must able to run on different operating systems have different application programming interface.

2. **LITERATURE SURVEY**

Its model using dependency inject ensure every part of application built with Ionic can be testable. When developer want to query the database, geo Fire object just need to set the parameters of the center and the radius from that center in kilometers. Ionic framework which was based on the popular JavaScript framework Angular provide infrastructure for developer when developing a large application with JavaScript language [1]. The program is running faster than native applications. Implements a simple music player based on Cordova framework. The user
experience will be a bit poor, these are all need to continue to improve. Developed own Cordova plug-in, reduced secondary development and adaptation for different platforms, and the instance provides a reference for the development of cross-platform mobile applications. [2].

These paper carried out related to the design and development of a web-based Framework that allows designing. Not satisfied with the performance of the mobile application. And discussing a mobile learning activity is implemented in pure web-based manner separates this work from similar efforts. In the course of this work, the current state of development of two of the components, the authoring tool and the mobile application is presented. [3]. Making the software easier to code than it was as a native application. Demonstrates methods of cross platform translation. Helps to understand how cross platform application work. Choosing a cross-platform development friendly environment would avoid the issue of converting code from one language to another. In this paper, we synthesize the work done in this field, and, following the work of explore avenues of applying our findings to a test case of our own creation. Our work will attempt to demonstrate methods of cross platform translation [4].

By referencing these paper helps to understand cross-language relations. These formal languages are linked each other using cross-language relations, mainly framework specific and established at runtime. In this work we present a language agnostic approach to automatically detect cross-language relations to ease re-factoring, validation and to allow navigation support to the developer. [5]. Phone gap builds a bridge between web development standards and smartphones to make it easy for web developers. it is hard to develop mobile application for developers on various platforms. Phone-gap is considered the best one. This particle describes the concept of Phone-gap and its included API components, and builds Android application based on Phone-gap, which better explains that Phone-gap can achieve cross-platform application using web technology. [6].

Describes the importance of JSON. JavaScript Object Notation (JSON) is a popular format for data serialization. Helps to understand why to use JSON to encode data. JSON is not only convenient but also efficient. Building JSON into JavaScript gives it a distinct advantage over other serialization formats such as XML when working with applications partially written in JavaScript. [7]. The Model View Controller method has been implemented in Asp.net and JSP. It is a fundamental design pattern for the separation between user interface logic and business logic. In that paper JSP is more difficult to implements MVC than ASP.NET [8].

3. **EXISTING SYSTEM:**

In the existing system the user cannot posted the news articles. User can only read the news posted by admin. also we can generate the application for only one platform, there is no standard interface to realize cross-platform software development. If we want to realize cross-platform software development and develop asset of native applications, we must invoke native API for each platform, to develop prospectively for different platform. This requirement for development cost is very high.

4. **METHODOLOGY**

The architecture has three part: Application, server and database.

The front-end of the system is the application that runs on a smartphone. Its purpose is to act as an interface that communicates with the server and also presents the response from the server in a view for the user. Between the database and the application is the server.
The server contains two parts: the controller and the model. The controller is a PHP file that is used for every request made by the application and determines where in the model to send request. It is also the controller that returns the results from the model. The model is a collection of functionalities that perform specialized tasks such as authentication, news submitter, search etc.

5. PROPOSED SYSTEM:

In proposed system any user can add the news, and read the news. User posted news that strictly verify by administrator then news shows to other users. To build mobile application for iOS, Android and Windows with minimum cost and duplicity of efforts cross platform can be used. Cross Platform enable developer to build applications using web languages instead of native languages.

In Proposed system includes multi OS support news apps based on Cordova plug-ins. The proposed system having three operating system (Android, iOS, Windows) i.e. using Cordova plug-ins system support multiple platforms. Through application server there is provide service to user, admin, Sub-Admin to add a news. There is provide approval to Admin. This added or posted information store in database server.

![Fig. Architecture of Proposed system](image-url)
6. **MATHEMATICAL MODEL**

1. Let $S$ be the system that Add the News and Verify the News.

   $$S = \{I, O, F, Success, Failure\} \quad (1)$$

2. Let $I$ be the input of the system.

   $$I = \{Iu, Isa, Ia\} \quad (2)$$

   Where,

   - $Iu = News \text{ posted by user.}$
   - $Isa = News \text{ posted by sub-admin.}$
   - $Ia = News \text{ posted by admin.}$

3. Let $F$ be the Functions of the system.

   $$F = \{FLI, FR, FLO, FD, FAD, FVR\}$$

   Where,

   - $FLI = Login$
   - $FR = Registration$
   - $FAD = AddNews$
   - $FVR = Verification$
   - $FLO = Logout$
   - $FD = User \text{ posted news display to sub-admin for verification.} \quad (3)$

   After verification, sub-admin will approve or disapprove the particular news.

4. *Success* be a success constraint. Accurate news are posted to the users then this news will be uploaded.

5. *Failure* be a failure condition. If the particular news posted by user is verify by sub-admin or admin and this news is not approve the failure condition occurred.

6. Let $O$ be the output of the system.

   $$O = \{OR\}$$

   Where,

   - $OR = News \text{ display for Read.}$

Performance measure –

a) Acceptance Rate (AR) -

   $$AR = \frac{\text{Number of Accepted News}}{\text{All News}} \quad (4)$$
b) Rejected Rate (RR) -

\[ RR = \frac{\text{Number of Rejected News}}{\text{All News}} \]  

(5)

CONCLUSION

The news application is compatible with all platforms like android, ios, windows. Another major objective of the project was to create a news application for a smaller area of groups, in order to create awareness among the people. Thus this project has fulfilled the above objectives quite successfully. The future work for these project is to extending the features such as language translation, so that it can be use in different regions. That means the news application can be used by people belonging to all class of society.

REFERENCES