

Cross-Platform Supported E-Learning Mobile Application

Pratiksha Tippe¹, Snehal Patil², Smita Patil³, Aadesh Nichite⁴, Priyanka Bhutte⁵,

Mr. Pramod Kharade⁶

^{1,2,3,4,5}U.G. students, Department Of CSE, Bharati Vidyapeeth College Of Engineering, Kolhapur, Maharashtra, India

⁶Asst. Professor, Dept. of Computer Science and Engineering, Bharati Vidyapeeth college of Engineering, Maharashtra, India

Abstract – This mobile application which are not only meant for learning but also to know about the campus events, timetables, activities and other important information. This application helps students to get information regarding the important things which they may miss otherwise. It also help student who are unable to visit various websites on a regular basis by providing required study material in just a few steps. Also student can easily find information related to their syllabus and question paper sets. It is very helpful for educational purpose. Some of the problems being faced in manual system are fast report generation is not possible and Information about the course are not properly known to student, so we need to develop “Cross-Platform Supported E-Learning Mobile Application” that help student to get information about their course. Students also easily fill the exam form through this app using payment gateway.

Key Words: Ionic Framework, Android Application, Web Application, Cordova, Cross-Platform Application.

1. INTRODUCTION

Under Shivaji University there are many branches of Engineering and many engineering colleges. Every year there are much more students took admission in those colleges. All students have to know about well known resources about their studies such that they can get as deep as knowledge they want, As well as they can get notification about exam section, in that we can fill the form also we provide the guidance about post examination activity. For that we want to develop an application as well as web application to available all information to engineering student about their academics

Now a day, availability of mobile apps is increases such that it is produce a noticeable change in the way human's feel and experience computing. A mobile app is a computer program designed to run on a mobile device such as a phone/tablet or watch. Mobile application often stands in contrast to desktop application s which run on desktop computers, and with web applications which run in mobile web browsers rather than directly on the mobile device. [9]

2 .LITERATURE REVIEW

Utilizing Ionic and blending Angular JS as a UI system; utilizing the Cordova half breed motor to accomplish cross-stage and cell phone local interface calls; Development apparatuses use Web Storm for front-end page advancement, and cross-stage application improvement process is portrayed. As indicated by The present circumstance of intense interest for versatile applications, joined with the standard and the present improvement pattern of portable data innovation, three sorts of portable application advancement are broke down, in light of the business procedure of a car organization, the portable terminal innovation advancement plan of Cross - stage endeavor - class versatile application administration stage is characterized. The outcomes demonstrate that they chose innovation advancement plan of versatile terminal is possible; it gives a portable terminal answer for ventures to coordinate and bring together the client experience, upgrades the undertaking's capacity to control the portable data framework, and establishes a strong framework for endeavors to rapidly and productively accomplish versatile data.

With the rise of structures for versatile improvement, some of them with somewhat more than a time of presence, there is the trouble to see which are the most beneficial for a given business objective, this article demonstrates the best choices among the systems utilized, continually contrasting and the local advancement. The versatile applications advancement is formed by three gatherings: locals, half and halves and web. In this paper an examination between the local and half and half portable applications expand on JavaScript (Reactive Native, NativeScript and Ionic) is finished. The investigation is finished utilizing the 7 increasingly significant standards to the versatile applications improvement. This paper demonstrates that React Native displays the best outcomes in all the investigated standards and as yet having advantages in the half breed improvement in connection to local.

3. BASIC CONCEPTS/TECHNOLOGIES USED

3.1 JavaScript

JavaScript is a dynamic PC programming language. It is lightweight and most usually utilized as a piece of site pages, whose usage permit customer side content to associate with the client and make dynamic pages. It is a translated programming language with item situated capacities.

JavaScript was first known as LiveScript, however Netscape changed its name to JavaScript, perhaps as a result of the fervor being produced by Java. The universally useful center of the language has been implanted in Netscape, Internet Explorer, and other internet browsers.

3.2 PHP

The PHP Hypertext Preprocessor (PHP) is a programming language that permits web designers to make dynamic substance that collaborates with databases. PHP is fundamentally utilized for creating electronic programming applications. This instructional exercise encourages you to manufacture your base with PHP. PHP is a universally useful scripting language that is particularly fit to server- side web improvement, in which case php by and large keeps running on a web server. Any php code in a mentioned record is executed by the php runtime, as a rule to make dynamic site page substance or dynamic pictures utilized on sites or somewhere else.

3.3 AngularJs

It gives you a chance to utilize HTML as your layout language and gives you a chance to stretch out HTML's grammar to express your application segments unmistakably and compactly. Its information authoritative and reliance infusion dispense with a significant part of the code you at present need to compose. Furthermore, everything occurs inside the program, making it a perfect collaborate with any server innovation.

3.4 Database Used

MYSQL

MySQL is the most well known Open Source Relational SQL Database Management System. MySQL is a standout amongst the best RDBMS being utilized for creating different online programming applications. MySQL is created, showcased and bolstered by MySQL AB, which is a Swedish organization. A database is a different application that stores a gathering of information. Different sorts of information stores can likewise be utilized, for example, documents on the record

framework or expansive hash tables in memory however information bringing and Composing would not be so quick and simple with those kind of frameworks. Nowadays, we utilize social database the board frameworks (RDBMS) to store and oversee immense volume of information. [8]

Queries

The query grid is a feature of Access that lets users fetches data from tables they've created. Users type names of the table's columns into the grid. They also type in the grid the criteria that data must meet for Access to include it in the query results. The SQL window is a feature of Access that offers an alternative to the query grid. Users familiar with SQL syntax can enter their statements in this window, and then run the statements by clicking the "Run" button on the toolbar. At the point when a client taps the catch for this element, Access makes SQL articulations in light of client contribution to the Wizard's screens. Access clients depend on this device and the question lattice for recovering their put away information.

3.5 Framework

Being a HTML system, we can run the Ionic application in a program all around effectively, however to run it on a versatile, Ionic uses Cordova, an Apache item, which enables it to get to the local highlights of mobiles like Contacts, Camera, and so forth. Along these lines, Ionic is a portable application improvement system used to manufacture half breed applications or versatile applications. It utilizes HTML5 for building up the versatile applications. A crossover application is a site running in a program shell in an application that approaches the local stage layer. Contrasted with unadulterated local applications, crossover applications sparkle regarding more stage backing, straight forwardness and speed of improvement, and simple access to outsider code.

According to its site, Ionic resembles 'Bootstrap for Native'. It is a UI structure that handles the UI and its connection. Ionic accompanies local style UI components and design.

Module Description

- 1] Registration Module
- 2] Syllabus Module
- 3] Question Paper Module
- 4] Exam Section Module 5]
- Book Bank Module

4 System Architecture

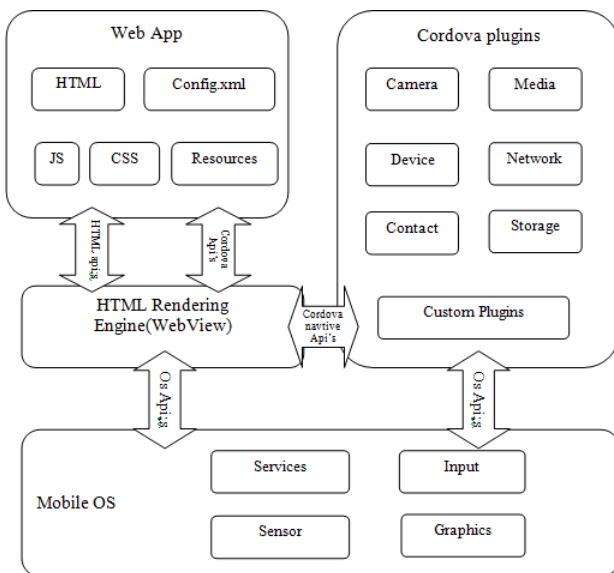
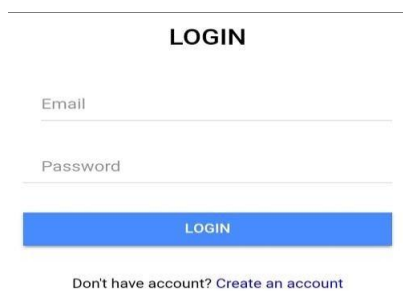


Fig. Proposed System Architecture

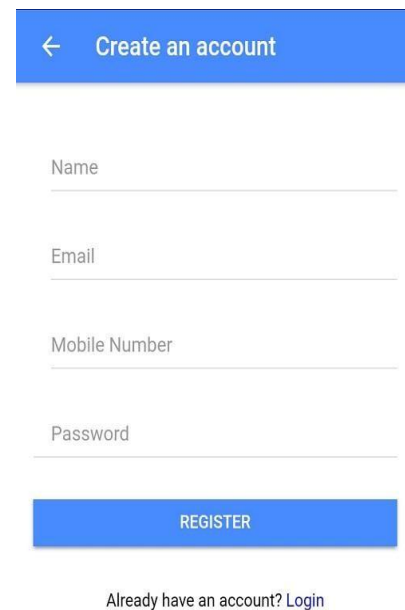
5 IMPLEMENTATION AND RESULTS

Snapshots of Mobile Application



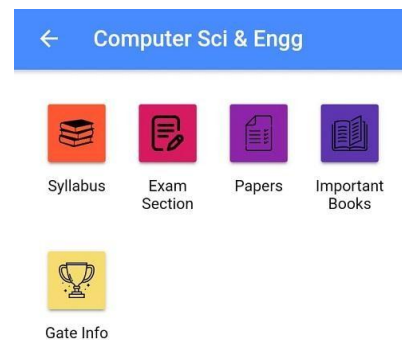
Application: User Login

Above page is the login page of mobile application users who can login using their registered username and password.



Application: Registration

Above page shows the registration page of application where the users can register by entering their name, valid email address, mobile number and password.



Application: List of Modules

Above page shows the application view after a registered user has logged in. We have provided five buttons which

after pressing will direct the user to the first year, computer science, civil, electronics respectively.

6 CONCLUSION

This application supported various platforms such as android, ios, windows. This mobile app useful for any engineering student throughout the complete it's graduation. Also we learn new technology and implement the static part and dynamic part of the project. All details will be readily available, fast and easy retrieval of data, it reduces paper work, it provides "better and efficient" information to student and it reduces time.

ACKNOWLEDGEMENT

We express our deep gratitude and sincerity to our project guide and the Mr. Pramod Kharade under whose valuable guidance; the whole project work was carried out.

REFERENCES

IEEE papers reference:

- [1] Yahui Yang, Youbing Zhang, Pengtao Xia, Bo Li, Zezhi Ren. Mobile Terminal Development Plan of Cross-Platform Mobile Application Service Platform Based on Ionic and Cordova. Dec 2017.
- [2] Wang Hugo Brito ; Anabela Gomes ; Álvaro Santos Jorge Bernardino. JavaScript in mobile applications: React native vs ionic vs NativeScript vs native development. June 2018.
- [3] Cai Shuang, "Cross Platform Mobile Application Development Framework Research and Design", Dissertation of master degree of Yunnan University May. 2016, pp. 11-15.
- [4] <https://www.youtube.com/watch?v=3iSURT3yzKY>
- [5] <https://www.tutorialspoint.com/ionic/>
- [6] <https://www.w3schools.com/js/DEFAULT.asp>
- [7] <https://www.w3schools.com/html/>
- [8] www.slideshare.net
- [9] wikivisually.com