Development of Mobile Application for R.T.O. Examination

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Abstract: *Ever increasing no. of traffic on the road, it is very tough to maintain the proper registration of vehicles and maintain the license of driver. All vehicles should be properly registered and the records regarding these vehicles should be maintained also user should get their learning license without any difficulties. R.T.O. office is a government office which maintains all the information regarding vehicles on the road and the driver. As per Motor Vehicle Act, 1939 and Bombay Motor Vehicle Rules, 1959 regular that every vehicle should be registered, no person shall drive vehicle or no vehicle owner shall drive in public place on in any other place unless the vehicle is registered along with his/her motor vehicle driving licensee and duly paid motor vehicle tax at R.T.O. office. This research paper presents working of the R.T.O. Examination application and its strategy.*

Keywords: R.T.O. Exam, Online Learning License, Android Application

I. INTRODUCTION

The "RTO EXAMINATION" has been developed to override the problems prevailing in the practicing manual system. The software is supported to eliminate problems occurring while giving learning license exam and, in some cases, reduce the hardships faced by this existing system. Moreover, this system is designed for the particular need of the RTO management to carry out the operations in a smooth and effective manner.

The application is reduced as much as possible to avoid errors while entering the data. It also provides error message while entering invalid data. No formal knowledge is needed for the user to use this system. Thus, by this all it proves it is user-friendly. RTO EXAMINATION, as describe above can lead to error free, secure, reliable and fast management system. This is designed to assist in strategic planning, and will ensure that your organization is equipped with the right level of information and details for your future goals.

1.1 Ease of Use

Cross Platform and Native Apps:

Now days 99.6% of phones runs on either IOS or Android. Companies now treat mobile apps as a channel for raising their brand and advertise more for the marketing purpose about the apps. A native mobile app is an application which only looks for particular operating system by using their IDE and SDK. Native apps have the ability to use device-specific hardware and software and can provide quality with huge performance rates. The advantages of native mobile apps include – High performance, Ultimate user experience and Greater app store visibility. A cross platform application is a mobile app which is compatible with multiple operating systems and can therefore run on any smart phones or tablets. The advantages of cross platform mobile app include:

	Native	**Cross Platform**
Multiple OS Support	No	Yes
User Interface Quality	High	Medium to High
Cost of Ownership	High	Medium
Application Update	Native Market	Native Market
Application Maintenance	High	Medium
Development Language	Java, C, C++, Objective C, Objective C++	Java, HTML, CSS, JavaScript

Shorter Development time: It will need development or coding for one time and it will support the entire applications platform. Cost- effectiveness

II. LITERATURE REVIEW

Digitization and changing day by day we need to keep update everything. On the other side, technology is becoming update in RTO. The term is based on Mobile application which can help for RTO examination. A Mobile Application is a computer program or software application designed to run on mobile device such as Cell Phones (Android/IOS), Tablet to Access from Exam center and Handle Application Easily.

III. METHOD

The application which is discussed in this paper is Exam Application whose name is R.T.O. Examination. For development of the R.T.O. Examination Application the platform used is 8.0 and the language used is JAVA and XML. SQLite is used at the backend side.

The first step is to download the new version of android studio that is 3.0 with its android SDK and android Virtual Device. After installing the studio and it's setting up its environment, API level setting has been done. The procedure of setting API level is new click on file>new>New project to create a new project.

These all data will be used to create the package name for example- com.RTO.Examapplication. This will include all the data of the development of android, it is said to be android package file which is needed to upload on the google play store. At the last, enter the path to save the file of application. If developer wants to create a new application with another new requirements, then developer need to choose Empty Activity for the project template. Click on Next. Accept the Default Activity name (Main Activity). Click Finish. These all are said to be android package file which you need to be upload to the Google play store. In the last field you will enter the path where you want to save. If you want to create your application according to you, so you need to select the blank activity from the activity module. Like this Activity you will add more things to your application which you want to show. When you open your application in Android Studio you have to See two file, first one is 'activity_main.xml' and the other one is 'content_main.xml'. Basically, both do the same Thing, but the activity_main.xml contains the basic layout when you selected Basic Activity. In content_main.xml you can edit the content.

To navigate transitions between stages of the activity lifecycle, the Activity class provides a core set of six callbacks: onCreate(), onStart(), onResume(), onPause(), onStop(), and onDestroy(). The system invokes each of these callbacks as an activity enters a new state.

- **OnCreate:** Called when activity is first created.
- **OnStart:** Called when activity is becoming
- visible to the user.
- **OnResume:** Called when activity will start interacting with the user.
- **OnPause:** Called when activity is not visible to the user.
- **OnStop:** Called when activity is no longer visible to the user.
- **OnRestart:** Called after your activity is stopped, prior to start.
- **OnDestroy:** Called before the activity is destroyed

Design Modules of R.T.O. Exam Application
Application divided into two phases one is USER and another is ADMIN:

User Side:
User side includes splash screen, registration screen, home screen with menu bar, payment gateways. Below are the details of the categories.

Splash Screen
 Initially, when android application is started, at a very first splash screen has been opened, which will blink for 30 Sec. Splash screen includes application names with its logo. Basically android studio tool has inbuilt feature of the splash

screen and after selecting the splash screen module it directly opens the inbuilt design of the screen which can be changed according to the requirements.
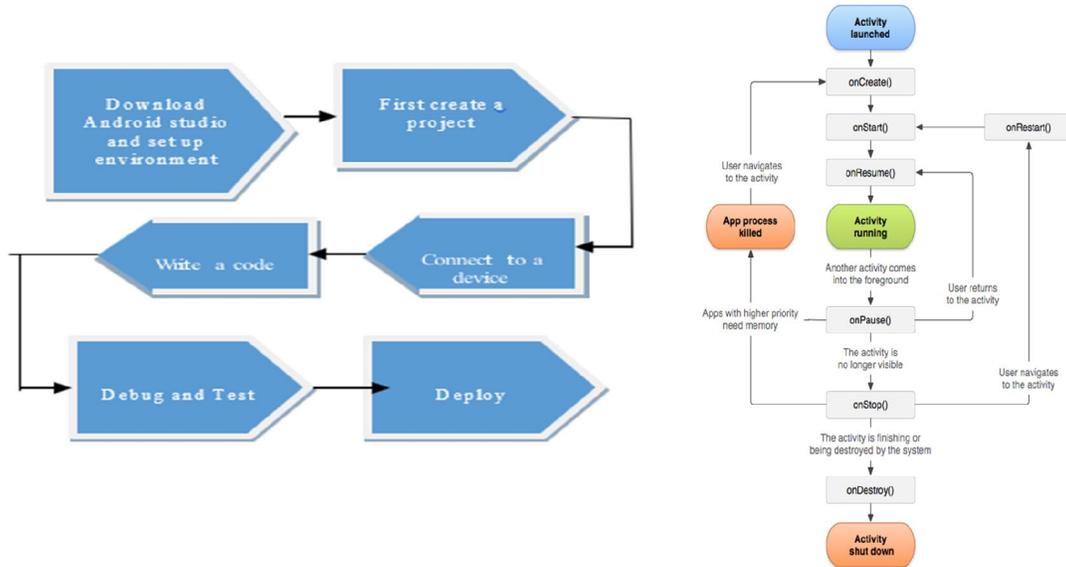
Registration/Login Screen
After splash screen, the next screen will be a registration screen. The user has to register himself for the further process, registration screen includes full name, email Id, Mobile number and full address. Then after clicking on Proceed button, the next screen will open which is a search screen. If the user forgets the password, then he will get forget password link on the registered email id by which user can update the password.

Digital Signature Screen
After successfully Logged in user need to signed digitally and accept the terms and conditions then only user can able to move ahead for the exam.

Examination Screen
On this Page there is timer of 15 minutes. User Should complete their exam within 15 minutes or else exam will get terminate automatically. If user gives right answer, then scoreboard will become green and it started blinking. After completion of exams, we move to the result page.

Result Screen
This Screen will display the marks for that particular user and this screen will give a talk back for user as well as for examiner as exam is completed and the page will be disable (not able to touch) for 15 seconds. after 15 seconds user can logout from there session.
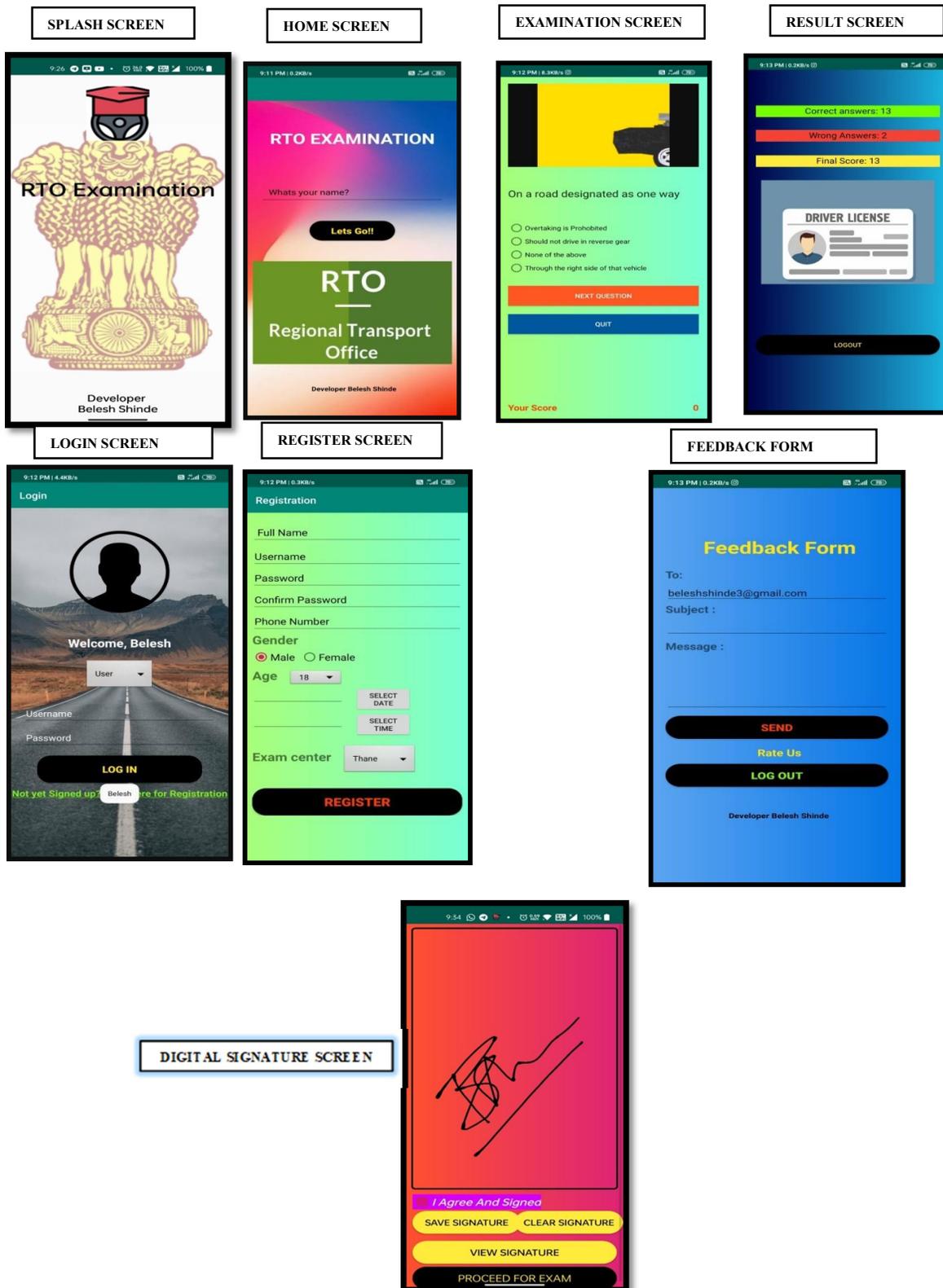
Feedback Form Screen
In this Page user can give their suggestions and feedback to improve or send their appreciation via mail.

V. LITERATURE REVIEW
After the text edit has been completed, the paper is ready for the template. Duplicate the template file by using the Save As command, and use the naming convention prescribed by your conference for the name of your paper. In this newly created file, highlight all of the contents and import your prepared text file. You are now ready to style your paper; use the scroll down window on the left of the MS Word Formatting toolbar.

VI. USER SIDE SCREENS

SPLASH SCREEN	HOME SCREEN	EXAMINATION SCREEN	RESULT SCREEN

LOGIN SCREEN	REGISTER SCREEN	FEEDBACK FORM

DIGITAL SIGNATURE SCREEN

VII. ADMIN SIDE SCREENS

Admin can manage Users and Users activities, add/delete/modify user, Date, Time, Exam Center.
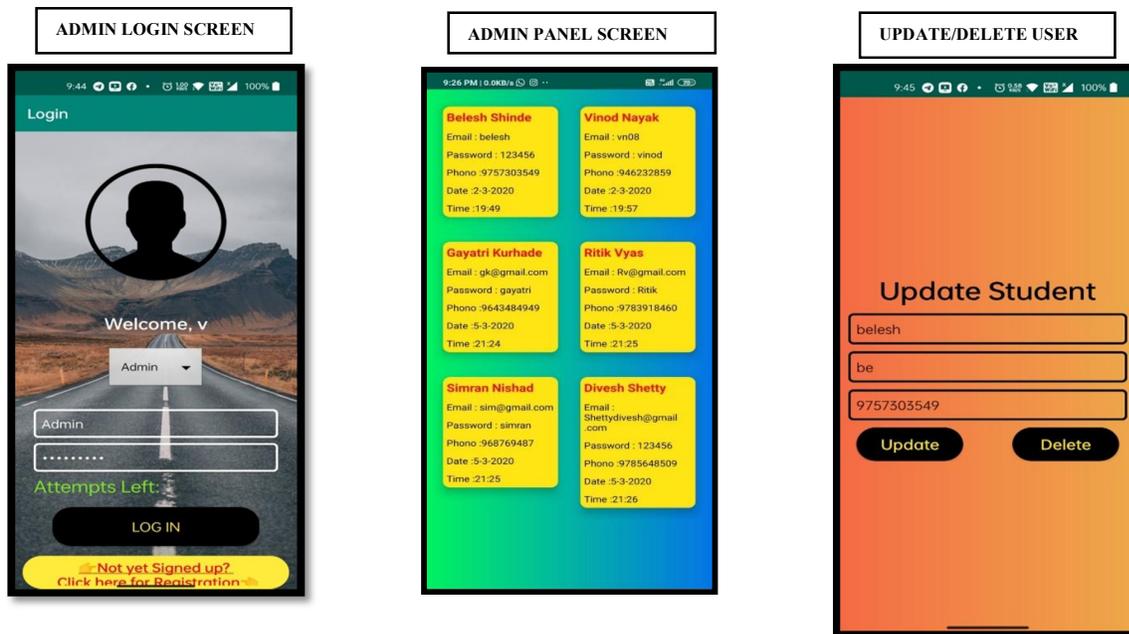
VIII. CONCLUSION

RTO Examination is an application that can be used to help someone who will follow the written examination. This application will run on Android smartphone/tablet pc. This application will be run both online and offline mode. With the help of this application the learning license examination will get faster and easy to manage. Also it does not required Large space like desktop as well as it does not require any electricity or internet connection. So there will be no electricity, Internet, Server Dependecy.

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