Android Quiz Application Development

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Abstract*: Android bias and technology have become a fundamental part of our lives. Mobile biases are being used as a means of data exchange, converse, entertainment, texting and other social communication, making computers perform the most complex tasks. In the field of the moment today, it is seen that multitudinous people want to test their memory and general knowledge capability. We help them do this with our small Android app that allows them to check their overall command.*

This paper presents the main way in the development of a quiz operation for Android using Android Studio. This work deals with the development of an Android-predicated multiple-choice question examination system. This operation is developed for educational purposes, allowing stoner to produce multiple-choice questions for different tests.

Keywords: "Quiz", "Android", "Test", "Result"

I. INTRODUCTION

A simple Quiz App that contains a group of curated questions and their answers and checks for the correctness of the solution given by the users. It navigates through the questions using dynamic programming. With the advances in mobile technology and the availability of smart mobile devices and networks, we can create a system that can be used to test students' knowledge levels. As mobile networks are available in most areas they can be used to test the knowledge of anyone, especially candidates of software companies who require specific skills for the job. Students need to develop quiz applications to prepare for various exams through smartphones and tablets. This application is to reduce administrative work, enabling students to practise quizzes designed to test their ability to absorb lectures. This research deals with the development of Android based quiz applications. We designed the application to facilitate the users to be able to take short quizzes using portable devices like smartphones and tablets.

This is an Android "QUIZ" app that provides information on CSE main topics. First of all, every student should install the application and then they can practise various quizzes. In this quiz application, we have provided various subject categories and it's divided into beginner to advanced level questions. Thus the main objective of the research is to develop an interactive mobile application based on an android platform to conduct quiz sessions on different topics. With further improvements, this app software can be used for the recruitment process of companies that will be able to save time and effort by travelling long distances to weed out unwanted candidates for personal interviews.

The aim of this project is to better manage the details of students, exams, marks, syllabus and papers. The performance of the application will be fully controlled by the administrator and the administrator can guarantee access to anyone. This project will reduce the manual process of administration of examinations and all related problems.

We are planning to design and implement this project so that the project will help different types of users apart from the administrative part. A user who adds as application admin in the system will be able to punch the tests and questions in the system and will be able to view the result of the student attempting the test. A user logging into the system as a student will be able to select a specific test and the question will depend on this test. After attempting and submitting the test the user will receive a message that he has successfully attempted the test and the score will be displayed on the user screen**.**

Objective:

- The main idea of the exploration is to develop an interactive mobile operation predicated on Android platform to conduct classroom quiz sessions for various technical subjects.

- On further advances this app can be used for sodalities which will be suitable to save time and effort to arrange the quiz manually.
- Users can study and prepare themselves for interviews, tests and examinations on Android phones and use this app to enhance their general knowledge about computer science and IT field anywhere and anytime.

It is essential to help scholars learn and prepare for the various tests taken for admission to advanced education in India. Still, no such operation exists in the Android-predicated platform, which can give medication for the tests in both a user-friendly and interactive manner to the contenders This is what we tried to convey in the development of Quiz Media: Quiz operation development using an Android-predicated platform.

Problem definition:

"Our goal is to develop an operation for users where the user can attempt any number of quizzes applicable to his/her choice."

The operation aims to facilitate a farther stoner-friendly platform by reducing manual sweats.

In this quiz operation designed and implemented in time limit quiz system, we try to overcome the existing problems with the following features:

- To exclude the source confounding problem
- For better operation
- For better frontend operation
- For better backend operation

FEATURES

- Easy way to test Knowledge.
- User-friendly app for easy understanding.
- Can reduce usage of resources like paper

II. LITERATURE SURVEY

Android is getting popular fast, and Hence its user base is increasing day by day as essential Android-predicated apps are fluently available on tablets and smartphones. Hence, we have set up that using Android apps to facilitate users in such a hassle-free manner is less complicated and far more time effective. Operation and widgets The operation programming interface library Android Runtime Android architecture can reduce development time and the memory needed by the device. In the future we will be suitable to include a redesigned friendly user interface as the operation targets different levels of users from advanced programmers to naive users, Android is the most used mobile OS worldwide and making Android apps is not as delicate as you suppose.

According to various checks, In this fastly moving and changing period, everything is upgrading. So, scholars want some further effectiveness and comfortability in their test. Hence, It was set up that the QuizApps have proven to be truly helpful in day-to-day life. The QuizApps is the stylish tool for conducting the test. There are numerous innovative QuizAppspresent today and Those QuizApps work for different purposes. The main aphorism is to make this app work faster and efficiently enough for scholars to make the most out of it.

Mobile devices and technologies became a basic part of our lives. Mobile devices are getting used as a way of data exchange, chat, entertainment, texting and other social communications, leaving computers running the foremost complex task. Recently android has become the foremost popular smart device's os (X. Wu and X. Li) [1] within the first quarter of 2016, it amounted to about 84.1% of the market share of operating systems but rose to about 86% within the half of 2020(S. Karthick& S.Binu 2017) [2]. It is anticipated to extend continually and significantly within the forthcoming times. Recently with the increase of android smartphone users, android operations are being developed for various sectors like banks, social media, e-commerce and educational services.

As stated in the report published by We Are Social in 2015[3], it has been revealed that 37.7% of the entire number of 76.7 million people are internet users. Consequently, the use of mobile devices becomes more expensive, it is thought that these devices will provide endless openings that can be useful in the training and knowledge process, (Eppard,

Nasser & Reddy, 2016; Khaddage, Muller &Flintoff, 2016)[4]. The use of smartphone technology in education will change the training and knowledge of educators (Heflin, Shewmaker& Nguyen, 2017)[5]. Some exploration has determined that the addition of laptops, smartphones and touch screen devices in academics helps to escalate motivation in scholars and improve their overall knowledge capability.

Adarrsh Paul, Rajat Kumar Singh, JayantSingh,TulasiSaiShweta U.G. Scholar, Computer Science & Engineering, SRM University, Tamil Naidu, India. The Quiz App is rated in the top 5 appreciativeness operation in the android market developed by SinduRajan and designed by YaliniKumaraguru. It is designed as a drug tool for job aspirants and those waiting to crack CAT, NTSE and various bank examinations. Pocket Aptitude is a collection of 10+ quantitative aptitude questions and word problems constantly asked in competitive examinations and placements papers. This operation has various fine points and flaws and provides a good user interface but only for practice tests but the questions being asked are old pattern and not in trend.The main maxim is to make this app work faster and efficiently enough for scholars to make the most out of it.

The Logical logic and Aptitude operation developed by the platoon is also a popularly used aptitude test operation. Logical logic helps in perfecting problem-solving skills by fastening on Logical logic Questions. Logical logic will help you in drug or admissions tests and other different kinds of examinations, but the user interface is not interactive, the user has to scroll horizontally to view the entire answer. It just has MCQs for test and score evaluation.

III. DISCUSSION

The amount of data produced was large but the research was limited by a relatively small sample size. Computer literacy has truly changed the way we use smart systems in our daily lives and understand how all our activities are integrated in the coming years. Creating a quiz app is a very complex task for academics, which involves time and programming knowledge. The proposed system of our project will help in automated production which will save time. This will avoid the complexity of manually managing and setting up and scheduling XM and schedules. In our project we used algorithms like genetic, heuristic, resource scheduling to reduce these limitations. This algorithm includes several strategies aimed at improving search performance. All the resources are well used and integrated in a way that suits the difficulties.

IV. REQUIREMENT SPECIFICATION

The software used for the development of the project is, as follows :-
Operating system : Windows, Android
Programming Language : Java, XML
Tools used : Android SDK Tools, Android platform Tools, Android Developer Tools

V. PROPOSED METHODOLOGY

We have bandied the nuances of the approach used in programming advancement in this section. The methodology of developing a design will be a step-by-step sequence to design, develop, and deliver the application. The programming language used for the development of the plan is JAVA and the software model used is the SDLC life cycle model. It formed the base for utmost software development morals and consists of the following phases: demand analysis, design, picture, testing, and conservation.
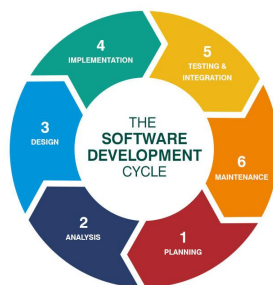

Fig.1 : Software Development Life Cycle Model

After the frame is entirely developed, it should be tested to ensure that it achieves the design pretensions. The software development life cycle (SDLC) uses numerous models, including the nimble model, the V-shaped model, the helical model, the iterative model, and the evolutionary model.

Scholars can log into this quiz system to share and directors can produce, correct and delete quiz questions predicated on the most recent performances of the applicable handbooks. Drivers can read the questions to attempt and after completing them, marks will be calculated through automatic result marking and affect wastes will be generated.

Application and Technology Used:

Android operation development is possible with some software Development kits to support the software and execution, they are as follows,

- **Android Studio :-** Android Studio is officially integrated Development Environment (IDE) for designing, coding, debugging etc. Executing operation for Google's smartphone operating system, Android. It has all the keywords inbuilt for ease of backend programming and also has design statements for ease of designing.
- **Java Development Kit:-** Since, Android operations require Java programming for their backend programming; It requires JAVA environment to support its functions, execution and syntax.
- **XML:** The frontal end design of the operation includes XML statements for relative layout, radio buttons, radio groups, buttons, textbooks boxes, and textbook views.
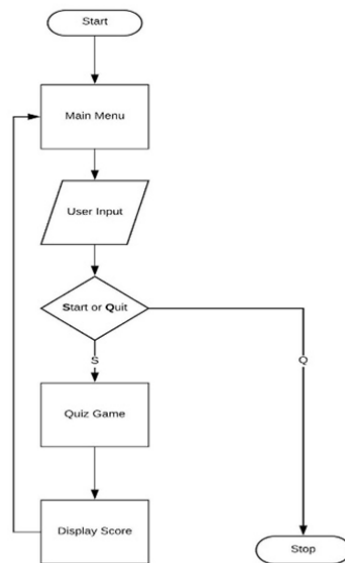

Fig. 2 : Flowchart of Quiz App

Working Flow of Application :-

Step 1 : Creating a new Project

Click on the File option at the top most corner on the left.

Then click on new and open a new project and name the project.

Now select the Empty Activity with language Java.

Name it Quiz App.

Step 2 : Designing the UI with activity_main.xml.

Step 3 :Working with the developers.java

Step 4 : Working with MainActivity.java

Step 5 : working with QuestionActivity.java

Step 6 : Working with ScoresActivity.java

Step 7 : Build the project into APK files or Bundles.

Step 8 : Transfer the APK file into an Android phone and install it and run it over

VI. RESULT

This quiz application is a very simple and interactive app. It consists of a set of questions. When we click on the option and click on the next question, it will show whether it is correct or wrong and also add 1 mark for each correct answer. At the end of the Quiz, it will display the correct answers, wrong answers and final score.
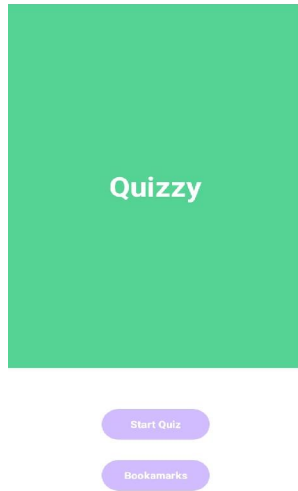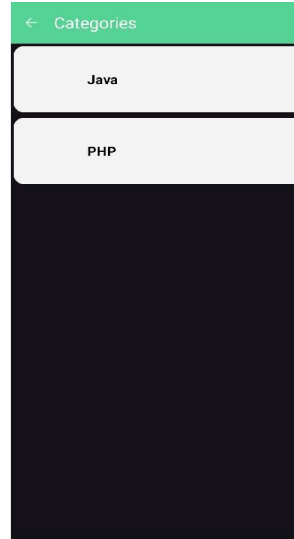
Fig. 3 Main_Activity Screen

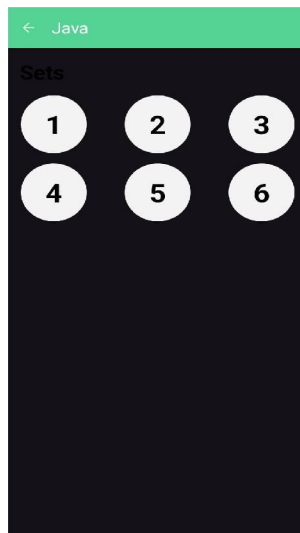Fig. 4 Categories_Activity Screen
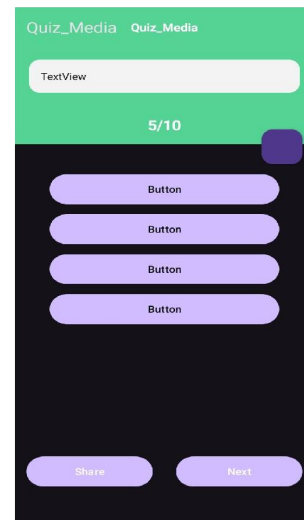
Fig. 5 :Sets_Activity Screen

Fig. 6 : Question_Activity Screen

VII. CONCLUSION

Using the Android studio gives us more flexibility, but it requires more time. The proposed system of our project will help to save our time.This research paper discusses the good points and flaws of the top Android quiz applications. Keeping in mind the requirement of students for placements and other entrance exams, this application is developed in the most preferred mobile operating system i.e. Android. This application has been developed to overcome the

shortcomings of Existing systems like classifying the sections appropriately, providing section wise questions, random set of questions, user friendly and maintaining a scoreboard with attractive and easy to use user interface. It is designed to ask both multiple choice and text type questions. These capabilities of this app help the user to take assessments more easily.

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