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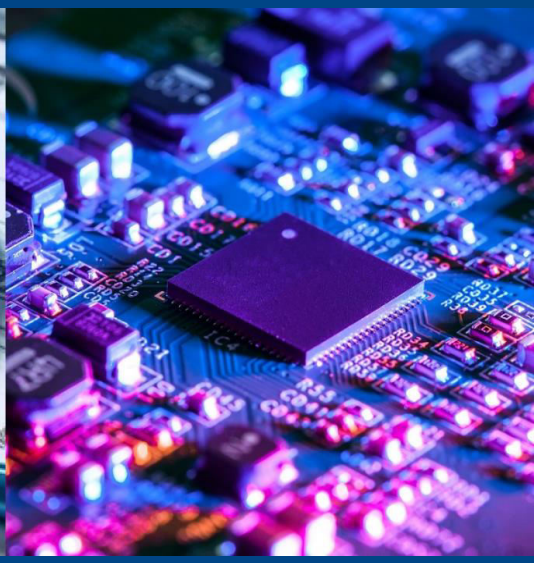

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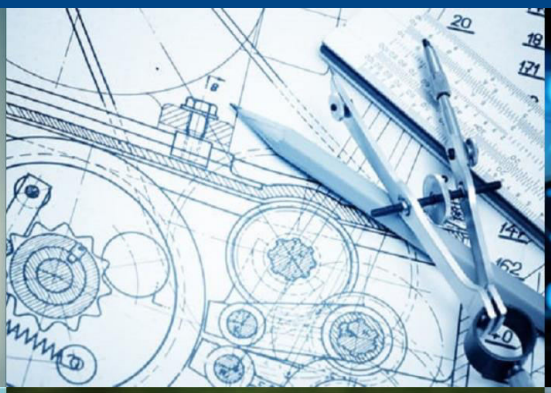

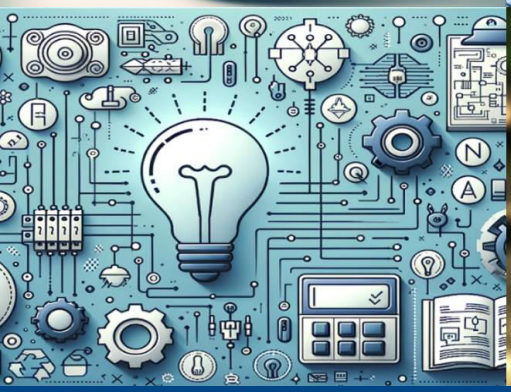

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Quiz Quest

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ABSTRACT: In the digital learning era, students face challenges in accessing well-organized study materials and practicing multiple-choice questions (MCQs) for online and competitive exams. *Quiz Quest* is an innovative educational platform designed to provide a centralized repository of CBSE syllabus notes, subject-specific quizzes, and mock tests. The application enhances self-learning by integrating time-based quizzes, a cheating detection mechanism, and real-time performance analytics. Teachers can create quizzes, allowing students to join using a unique code, ensuring secure and controlled participation. The platform also enables teachers to access scores dynamically, facilitating better performance evaluation. With features such as online exam simulations and structured quiz management, *Quiz Quest* aims to bridge the gap between traditional learning methods and modern educational needs. This paper discusses the system architecture, core functionalities, and future enhancements of *Quiz Quest*, emphasizing its role in improving students' academic preparedness.

KEYWORDS: Online Learning, Quiz Application, Time-Based Quizzes, Cheating Detection, Secure Exam Platform, MCQ Practice, Student Evaluation, Unique Code Authentication, Teacher Quiz Creation, Score Tracking.

I. INTRODUCTION

Development of Android-based Quiz application is mainly required by students and learners to prepare themselves for different examinations directly through Smart-Phones and tablets in hands. The main aim of this project is to facilitate students in learning, gaining and improving their knowledge skills. At the meantime, our app provides them fun so that the users can prepare for interviews, entrance tests or any other corresponding purposes in a fresh mood and can't get bored orfrustrated due to the dullness of application. We designed the application to facilitate the users to be able to take short quizzes using portable devices such as smart phones and tablets.

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 user. It navigates through the questions using dynamic programming. Development of Android-based Quizapplication is especially required by students and learners to organize themselves for various examinations directly through Smart-Phones and tablets in hands. The most aim of this project is to facilitate students in learning, gaining, and improving their knowledge skills. Within the meantime, our app provides them fun so the users can steel themselves against interviews, entrance tests, or the other corresponding purposes in a very fresh mood and can't get bored or frustrated becauseto the dullness of the applying. We designed the application to facilitate the users to be able to take short quizzes using portable devices likes smartphones and tablets.

Android is software that is built basically for Mobile phones. It's supported by the Linux Kernel and other open-source software and is developed by Google. Android is very popular nowadays among students and students are now choosing Android for his or her projects. It's greatly important for a beginner to create baby Android apps to learn Android. The evolution of today's mobile devices increases the quantity of mobile applications developed and among them the quiz applications. Android Mobile hardware and software platforms allow the running of faster and richer applications. This paper presents the Android could be a software package and Linux based operating system for mobile devices/ equipments such as tablet computers and smartphones. It's developed by Google and later the OHA (Open Handset Alliance).Java language is principally wont to write the android code while other languages are used. The goal of the android project is to form a successful real-world product that improves the mobile experience for

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end-users.

II. OBJECTIVE

The basic objective of this project is to develop an android-based system with following features, namely: (i) Questions bank, (ii) Time frame, (iii) Life lines, (iv) Data Storage, and (v) Multimedia support (pictures, snapshots, tables). The main objective to create this Quiz app is to help the users for the preparation of necessary educational purposes regarding Computer Science and IT field with an easy access to our app directly on their Android phones. Through our app, users can learn and prepare themselves for interviews, tests and exams on Android phones, and can also use this app for increasing their general knowledge about Computer Science, Verbal and Analytical everywhere and anytime.

III. PROBLEM STATEMENT

It is essentially required to assist students for the learning and preparation of different tests conducted for admission in higher studies. However, there exist no such application in android-based platform, which can provide candidates with both preparation of such tests in user friendly and interactive way. This is what we tried to address in the development of Quiz App : Quiz Application Development using Android-Based Platform.

IV. PROPOSED WORK

Android is a complete software suite designed for mobile devices such as tablets, notebooks, smartphones, e-book readers, and set-top boxes. It includes an Android-based operating system, middleware, and essential mobile applications that provide a flexible and scalable platform for mobile development.For developing Quiz Quest, the following steps will be undertaken:

1. Create a New Android Project
2. Develop the Core Functionality in Java
3. Design the User Interface in XML
4. Run the Android Application
5. Convert the Files into APK Bundles
6. Test the Application
7. Deploy on Smartphones
8. Share with Other Users

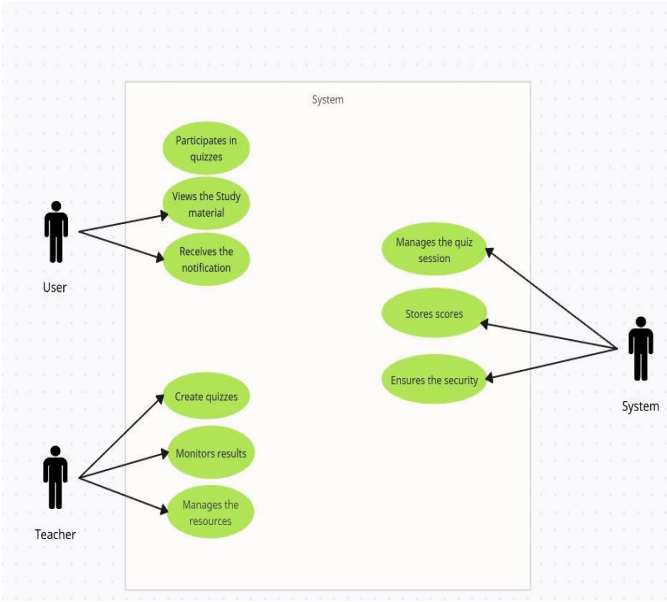

Fig.1 Usecase of Quiz App

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V. WORKING OF APPLICATION

Step 1: Creating a new project

- Click on the File option at the top most corner in the left.
- Then click on new and open a new project and name the project.
- Now select the Empty Activity with language as Java.
- Name it Quiz App.

Step 2: Designing the UI with activity_main.xml
Step 3: Working with developers.java
Step 4: Working with MainActivity.java **Step 5**: Working with QuestionsActivity.java **Step 6**: Working with ResultActivity.java **Step 7**: Working with DeveloperActivity.java
Step 8: Build the project into APK file or Bundles.
Step 9: Transfer the APK file into Android phone and install it and run it over.

VI. RESULT

This quiz application is very simple and interactive app. It consist of a set of questions. When we click on the option and click on the next questions, it will show whether it is correct or wrong and also add I mark for each correct answers At the end of the Quiz, it will display the score and teacher can also see it with a unique code.

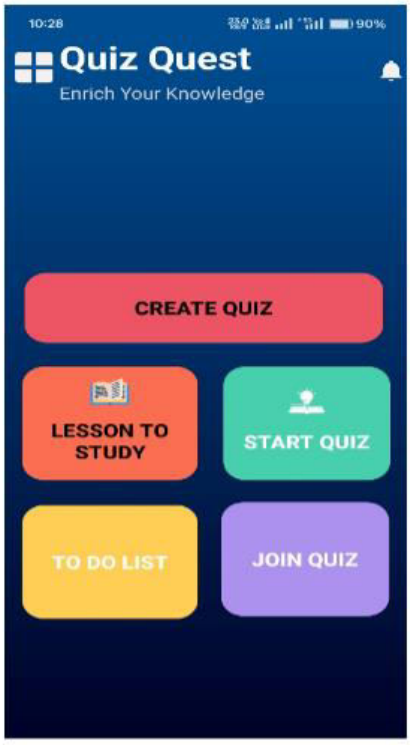

Fig.2 homepage

Fig.3 Question_enter

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Fig.4 Student_activity

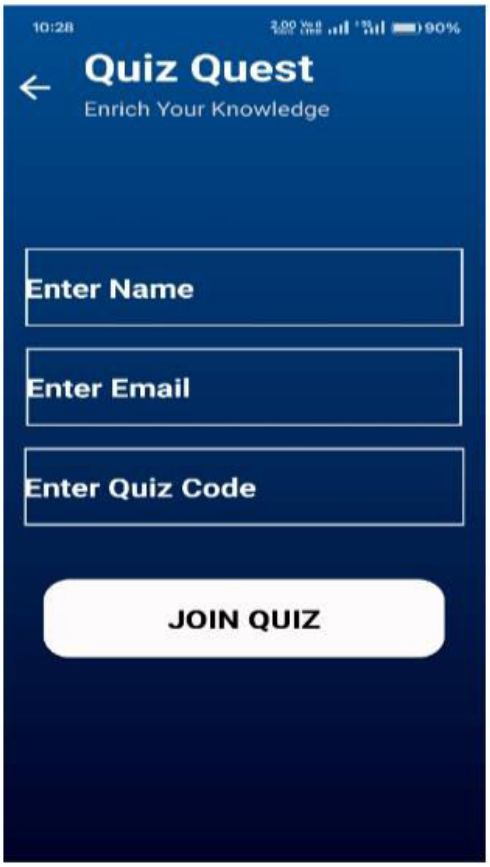

Fig.5 Quiz Verification

VII. LITERATURE REVIEW

With the growing popularity of Android devices, the demand for mobile applications, especially educational apps, is rapidly increasing. Android's ease of access, open-source nature, and broad compatibility make it an ideal platform for developing quiz applications that aid in academic preparation.

Several quiz applications have been proposed in the past to enhance learning. Byers and Alnarp [1] introduced an Interactive Learning Expert System for Quizzes, which allows users to engage in an adaptive learning experience. Another system, proposed in [2], developed a multiple-choice-based quiz application using QuickBasic and JavaScript, displaying the accuracy of answers after completion. Similarly, the Student Edition Web-based Expert System [4] was designed to help students prepare through a multiple-choice quiz format, providing immediate feedback and an email feature for progress tracking.

Other quiz applications focus on diverse knowledge areas. The Quiz Hub [5], an online interactive learning platform, offers subcategories such as Math, History, Vocabulary, and Science quizzes. Unlike multiple-choice quizzes, it uses matching-pair questions to test knowledge. Meanwhile, TreeKnox Computer Quiz [8] specifically assists computer science and IT students by offering questions on Operating Systems, Database Management, Software Engineering, Computer Networks, and Digital Electronics, with an interactive interface that reveals correct answers upon request.

Additionally, some quiz applications provide different difficulty modes to cater to various users. A quiz system described in [9] includes General and Aptitude modes, allowing users to take multiple-choice quizzes with friendly

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interaction. Another application [10] offers three difficulty levels—Easy, Normal, and Hard—and provides a "Hint" feature. However, excessive use of hints reveals answers instead, limiting its educational effectiveness.

Most existing quiz applications either focus on entertainment or provide limited interactive learning features. While these applications offer question banks and simple quiz functionalities, they often lack timed quizzes, anti-cheating mechanisms, teacher-controlled quiz creation, and dynamic score access. Quiz Quest aims to fill this gap by integrating these essential features, providing a structured and efficient learning platform for students preparing for competitive exams, interviews, and academic assessments.

VIII. CONCLUSION

The development of the Quiz Quest application provides a structured and efficient way for students to prepare for various exams, interviews, and competitive assessments. By incorporating features such as time-based quizzes, cheat detection mechanisms, teacher-created quizzes, unique code-based student participation, and real-time score access, the app ensures a secure and interactive learning environment.
The use of Android Studio allows for greater flexibility, making the application adaptable for future enhancements. The system is designed to be user-friendly, scalable, and easily maintainable, enabling institutions and learners to benefit from a digitalized, accessible, and engaging quiz platform. With instant feedback and performance evaluation, Quiz Quest enhances the learning experience, making education more interactive and effective

IX. FUTURE SCOPE

We are planning to keep managing the project and improving it based on user feedback. Here is our to-do list for the future:

- We will add some more categories in our app.
- We'll try to make it more user-friendly than it is now.
- We'll try to improve its quality.
- We'll work on another feature in our app to add a module namely "Make Quiz," which will help teachers create their own quizzes for their students.

ACKNOWLEDGEMENT

We would like to express our sincere gratitude to everyone who contributed to the successful completion of this project. We extend our heartfelt thanks to our mentors and faculty members for their invaluable guidance, support, and encouragement throughout the development of this quiz application.
We also acknowledge the efforts of our peers and friends who provided insightful feedback and suggestions to enhance the functionality and usability of the application. Their inputs helped us refine and improve our work.

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