RAJALAKSHMI
ENGINEERING COLLEGE
An AUTONOMOUS Institution
Affiliated to ANNA UNIVERSITY, Chennai

CS19611 - MOBILE APPLICATION DEVELOPMENT PROJECT REPORT

QUIZMASTER : INTERACTIVE ANDROID QUIZ APPLICATION

Submitted by

KEERTHIKA B 220701126

in partial fulfilment for the course for the degree of

BACHELOR OF ENGINEERING

In

COMPUTER SCIENCE AND ENGINEERING

RAJALAKSHMI ENGINEERING COLLEGE

RAJALAKSHMI NAGAR

THANDALAM

CHENNAI-602 105

MAY 2025

RAJALAKSHMI ENGINEERING COLLEGE

CHENNAI – 602105

BONAFIDE CERTIFICATE

Certified that this project report titled **"QUIZMASTER : INTERACTIVE ANDROID QUIZ APPLICATION"** is the bonafide work of **KEERTHIKA B (220701126)**, who carried out the work under my supervision. Certified further that to the best of my knowledge, the work reported herein does not form part of any other thesis or dissertation based on which a degree or award was conferred earlier.

SIGNATURE

DR.P KUMAR

HEAD OF THE DEPARTMENT

Computer Science and Engineering

Rajalakshmi Engineering College

Chennai – 602105

SIGNATURE

Dr. KARTHICK

ASSISOCIATE PROFESSOR

Rajalakshmi Engineering College

Chennai - 602105

Submitted to Project and Viva Voce Examination for the subject

CS23B34 – Immersive Experience in AR/VR held on_____.

Internal Examiner

External Examiner

ACKNOWLEDGEMENT

Initially we thank the Almighty for being with us through every walk of our life and showering his blessings through the endeavor to put forth this report. Our sincere thanks to our Chairman **Mr. S. Meganathan, B.E, F.I.E.,** our Vice Chairman **Mr. Abhay Shankar Meganathan,B.E.,M.S.,** and our respected Chairperson **Dr. (Mrs.) Thangam Meganathan, Ph.D.,** for providing us with the requisite infrastructure and sincere endeavouring in educating us in their premier institution.

Our sincere thanks to **Dr. S. N. Murugesan, M.E., Ph.D.,** our beloved Principal for his kind support and facilities provided to complete our work in time. We express our sincere thanks to our **DR. P. Kumar** Professor and Head of the Department of Computer Science and Engineering for his guidance and encouragement throughout the project work. We convey our sincere thanks to our internal guide and Project Coordinator, **Dr.V.Karthick** ,Rajalakshmi Engineering College for his valuable guidance throughout the course of the project.

KEERTHIKA B (220701126)

TABLE OF CONTENT

CHAPTER No.	TITLE	PAGE No.
1)	Abstract	1
2)	Introduction	1
3)	Literature Survey	2
4)	Proposed System	2
5)	Module Description	5
6)	Implementation and Results	6
7)	Conclusion and Future Enhancements	13
8)	References	14

CHAPTER 1

ABSTRACT

This project presents the development of an Android-based Quiz Application aimed at delivering an engaging and educational experience for users. The app is built using Kotlin for logic and XML for UI design, with SQLite serving as the local database to store questions and scores. It provides users with a clean and intuitive interface to take quizzes on various topics, enhancing both learning and retention.

The application supports multiple-choice questions, dynamic question loading, real-time answer feedback with visual indicators (e.g., color changes), and persistent high score tracking. Upon completion of a quiz, users are directed to a results page summarizing their performance, with options to retry or return to the dashboard. Additionally, a report feature has been integrated to highlight the questions answered incorrectly, along with the correct answers—helping users to identify areas of improvement.

This app is designed to be lightweight, offline-capable, and suitable for users of all ages who are looking to practice or test their knowledge. Its modular structure allows easy updates to question sets and scalable integration for more topics or difficulty levels.

CHAPTER 2

INTRODUCTION

2.1 GENERAL

The Quiz Application is a mobile-based platform that allows users to take quizzes on various topics, providing an engaging and interactive learning experience. It tracks user performance, stores high scores, and offers detailed feedback on quiz results. The app allows users to retry quizzes to improve their scores and knowledge. By using a database to store questions and answers, it ensures offline accessibility and provides a seamless experience.

2.2 OBJECTIVE

The objective of this Quiz Application project is to create an engaging platform where users can take quizzes, track their scores, and receive immediate feedback. The app aims to enhance learning by providing features such as color-coded answers, a report page for detailed results, and the ability to retry quizzes for improved performance.

2.3 EXISTING SYSTEM

Existing solutions for quiz applications often provide basic features like question-answer formats and score tracking, but they lack advanced functionalities such as interactive feedback, detailed performance reports, and dynamic features like retry options or color-coded answer choices for better user experience.

CHAPTER 4

LITERATURE SURVEY

Several quiz applications are available in the market, including popular ones like "QuizUp" and "Kahoot." However, many of these applications face the following limitations:

- Limited Customization of Question Sets
- Lack of Detailed Feedback on User Performance
- Absence of Immediate Visual Feedback
- Inadequate Retry Functionality
- Lack of Real-Time Score Tracking
- Complex and Cluttered User Interfaces

Research in user experience design emphasizes that quiz apps should offer a seamless and intuitive interface with smooth animations, real-time feedback, and the ability for users to customize questions and track performance. Most existing apps fall short in these areas, providing limited interactivity and not fostering a personalized, engaging experience for users.Many quiz apps lack integration with social platforms, limiting users' ability to share their results or challenge friends. This reduces the potential for viral growth and community engagement, which is a key feature in keeping users motivated and expanding the app's user base.

CHAPTER 4

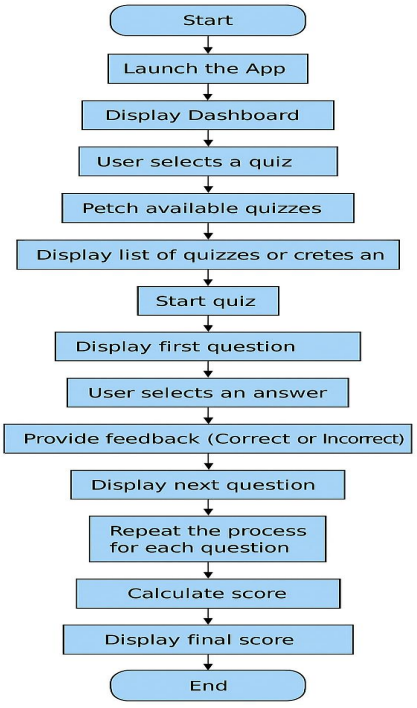
PROPOSED SYSTEM

4.1 SYSTEM OVERVIEW

The QuizMaster app enhances traditional quiz games by offering a fully interactive, customizable experience.Features smooth animations, intuitive UI, and performance tracking.

4.2 SYSTEM ARCHITECTURE

- User opens the app and accesses the dashboard.
- User selects or creates a quiz.
- User answers questions, with immediate feedback after each answer.
- System calculates and displays the final score.



(Fig 3.1 System Architecture)

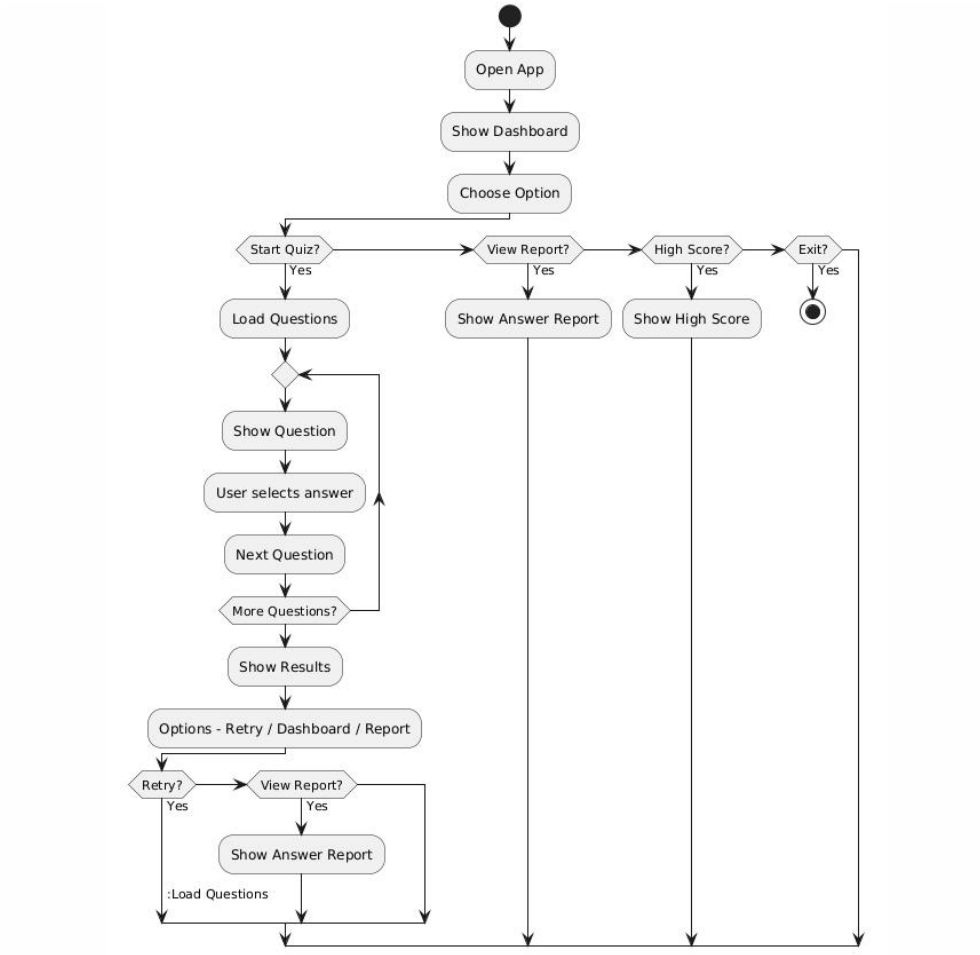
CHAPTER 5

MODULE DESCRIPTION

5.1 MODULES

- **Question UI :** Displays questions and options.
- **Scoring:** Tracks and updates scores.
- **Navigation:** Moves between quiz, result, and report pages.
- **Report: Highlights right and wrong answers.**.

5.2 ACTIVITY DIAGRAM



(Fig 4.1 Activity Diagram)

CHAPTER 6

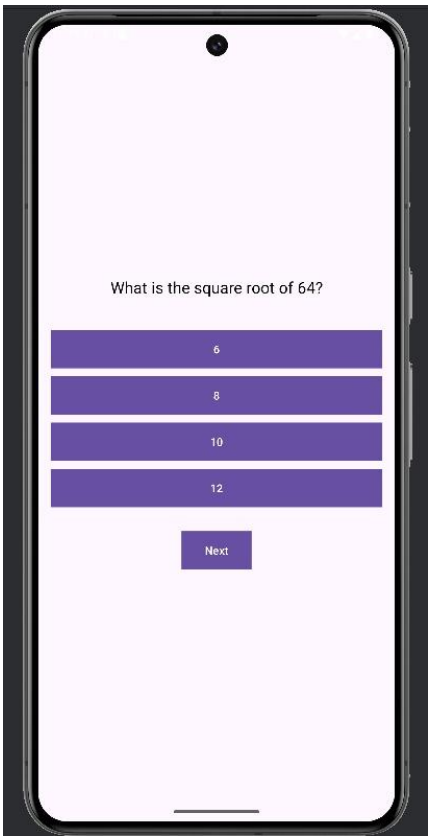
IMPLEMENTAION AND RESULTS

6.1 TOOLS USED

- Android Studio
- Kotlin
- XML for UI
- SQLite (for storing custom Truths/Dares)

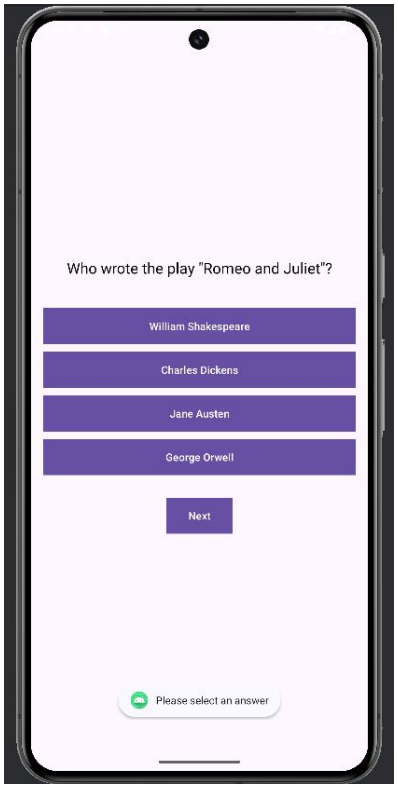
6.2 OUTPUT SCREENSHOTS

(Fig 6.1 App Home Page)

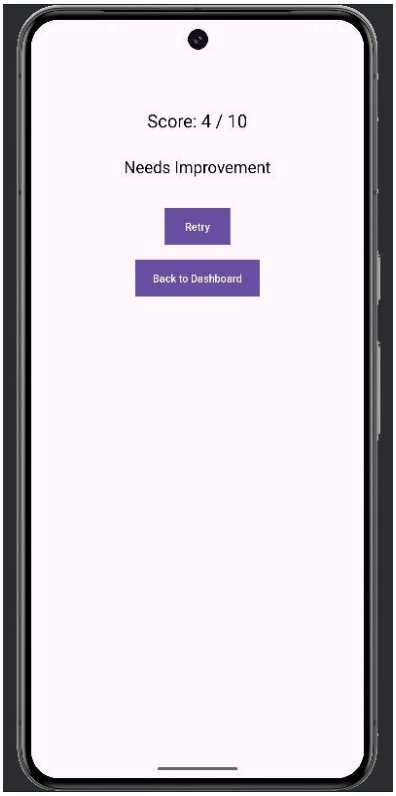


(Fig 6.2 Question Screen)

CHAPTER 6



(Fig 6.1 Error Page)



(Fig 6.2 Result Screen)

CHAPTER 7

CONCLUSION AND FUTURE ENHANCEMENT

7.1 CONCLUSION

The Quiz App provides an interactive and educational platform with real-time scoring, high-score tracking, and performance reports. Its user-friendly interface and instant feedback system enhance user engagement, making learning fun and effective. The app also allows question customization, ensuring content relevance for different users.

7.2 FUTURE ENHANCEMENT

- Add multiplayer quiz battles.
- Include timed quizzes and level-based difficulty.
- Integrate voice-based questions and answers.
- Add analytics dashboard for detailed performance insights.

REFERENCES

1. Android Developer Guide – developer.android.com
2. Material Design Principles – material.io
3. Kotlin Android Tutorials – kotlinlang.org
4. UI/UX Best Practices in Mobile Applications (2024)