

My quiz app with llama2: function description:

1. User login and registration

- Provide user registration and login functions where users can create an account and log in to access various application features. (using username, email, confirm email, password, confirm password to register, and username and password to log in.)
- After registration, an interest selection page will be provided, users need to select their interests used to generate the questions using Llama2.
- Use SQLite tables to record the users' information, users' interests.

2. Self-account showcase

- Users can see their self-information here, which includes username, email, and quiz history (three aspects, including total history quiz number, correct history quiz number, and incorrect quiz number).

3. Quiz function

- Provide exercise and quiz functions, users can choose different exercise content and question types according to their needs and learning objectives.

4. Learning history

- Record the user's learning history, including grades and answers on exercises and quizzes, to help the user track their progress.

5. Share function

- Support users to share learning outcomes on social media platforms, such as generating learning reports, sharing learning experiences, etc. Used the Android ZXing framework to generate the QR code.

6. Upgrade function

- Provide subscription membership function, divided into different levels, starter, intermediate, and Advanced. Stripe is used for this.

How it adheres to modern Android development practices:

Android Studio:

- Android Studio is the official IDE for Android app development. It has a Compose design tool, a flexible build system, and an Android emulator.

Use Jetpack libraries:

- Jetpack is a set of Android libraries designed to increase development productivity and reduce boilerplate code. For example, ViewModel is for managing UI data, LiveData is for reactive data streaming, and so on.

Activity lifecycle management:

- The onCreate() and onDestroy() methods are used to initialize and clean up resources, ensuring that resources are released at the right time to avoid memory leaks.

Database operations:

- Use the database for data access operations, here we use the DBHelper class to manage the database operations.

Permissions handling:

- When sharing the QR code, the FileProvider correctly obtains the file URI and adds temporary access permissions in the Intent.

How to use LLMs to improve my app:

1. Personalized content recommendation

- LLMs are used to analyze users' interests and learning history, provide personalized exercises and test content recommendations, and improve users' learning efficiency and experience.

2. Natural Language Processing

- A more intelligent question-answering function is implemented through LLMs, which allows users to ask questions in natural language, and the system automatically generates corresponding questions or answers to improve the interactive experience.

3. Automatically generate learning reports

- LLMs are used to analyze the user's learning data and automatically generate detailed learning reports to help users better understand their learning progress and areas for improvement.

4. Intelligent customer service

- Intelligent customer service based on LLMs was deployed to help users answer common questions in application use and improve user satisfaction.