Using Llama to Enhance a Mobile Quiz App

There are not too many ways you can integrate Llama 3.2 into this quiz app. I designed the app in one of the only ways you could add Llama into it. Currently, the app is based on a fixed set of hard-coded questions and answers, integrating an AI model like Llama opens the door to generating dynamic quiz content that evolves over time.

1. Dynamic Question Generation

The most obvious use of Llama is generating quiz questions on demand. Instead of reusing the same set of five hardcoded questions, the app could request new questions from Llama each time a user starts a quiz. By providing prompts such as, "Generate 5 multiple-choice questions about world history. Each question should have one correct answer and two incorrect ones," Llama can return a structured set of questions and answers in JSON format. These could then be parsed into the app's existing Question model with little change to the front-end logic.

2. User-Customized Quizzes

Llama can also be used to generate personalized quizzes based on categories chosen by the user. For example, the user could choose a topic like "science fiction," "biology," or "computer science," and Llama could be prompted to generate questions specific to that category.

3. Different "game" Modes

While the current quiz format uses multiple-choice questions, Llama could also power more open-ended formats. For example, the app could include a "Death March Mode" where users type in free-text answers, and Llama evaluates how correct they are.

Llama could also explain answers. After a question is answered, the app could show a short AI-generated explanation to make the app feel more educational and less like a guessing game.

4. Challenges

Integrating Llama requires a backend, which is currently beyond the scope of the project and what has been taught. To make use of the model in a mobile app, a server would be needed to host the Llama model or relay requests to an API. The app is already structured in a way that follows SOLID principles, which makes it easier to "swap in" a Llama-powered QuestionRepository in the future with minimal changes to the UI logic.