Llama 2 Large Language Model

Usability in an Android-based Quiz App

Introduction

Llama 2 is an LLM (Large Language Model) developed and produced by Meta, which seemingly is the key LLM that works in with the functionality of their **Meta AI** product. Today, LLMs are being used for a wide range of tasks, across many industries, including:

- Document generation for basic & advanced reporting on internal statistics/data/KPIs
- Chatbots for internal & external support of issues
- Data retrieval and flow to support business operations
- Financial analysis using mathematical inquiry, supported with data visualisation through coding
- Provision of healthcare advice and protocols
- Coding support for developers, students, etc

Upon developing the Quiz App for Task 3.1C, I have devised a few ways in which Llama 2 can be integrated into the app, given its functionality as of the latest build provided in my GitHub repository.

Auto-Generation of Questions based on User Prompts

Instead of hard coding a series of questions, which does not change throughout the session, or even across multiple sessions, integration of Llama 2 could allow for the functionality of automatically generating a series of questions based on a prompt, or series of prompts, made by the user.

I would integrate a page after the Start Page, that opens up a chat with the Llama 2 model, and is trained to ask a series of questions that will gather some categorical information on things such as:

- Topic/s (Science, Art, etc)
- Number of Questions
- Difficulty of answers

Answer to Questions in a Feedback cycle

When users get the questions right/wrong, Llama 2 can provide feedback to the user to support the provided answer, or to help the user learn about what would've been the correct answer and why. This would assist with learning and provide positive feedback to correct answers, but from a development perspective, it would streamline how answers are generated.

I would code in the Llama 2 model to wait until an answer has been provided by the user, which the model will then respond with either a positive/negative answer feedback.

Study Assistant

The Quiz app could be reformulated to support a user with rapidly learning/revising topics for a given assessment for school. The user could submit a document with the assessment content, rubric, etc. The model could then analyse the content with OCR and provide some in-depth analysis of the document but deliver the key content in a

fully formed quiz that is designed to cover all the necessary aspects of the topic at hand.

To implement this, I would need to reformulate the entire application and provide a framework for the model to add content into. I may need to switch from multiple activities to a fragmented app design.

Conclusion

There are a few ways in which this app could implement Llama 2 and its capabilities, the last suggestion of which would be the most suitable for the following Distinction-level task.