

Proposal: Tourist Translation Tool

Introduction:

In collaboration with my tutor, we propose the development of an Android application designed to assist tourists in overcoming language barriers during their travels.

Leveraging the capabilities of Llama 2, this app aims to provide seamless translation services by integrating Optical Character Recognition (OCR) for text recognition and advanced language processing for translation.

Objective:

Our app's primary objective is to enhance the travel experience for tourists by offering a convenient and efficient tool for translating signs, menus, and other text-based content encountered during their journeys. By utilizing OCR for text recognition and Llama 2 for translation, we aim to provide accurate and reliable translations in real-time, thereby facilitating better communication and comprehension for travellers in foreign environments.

Proposed Solution:

The proposed solution involves developing an Android application with a user-friendly interface that allows tourists to easily capture text using their device's camera. The OCR functionality will recognize and extract text from images, which will then be processed by Llama 2 for translation into the desired language. Users can select the source and target languages, enabling them to translate signs, menus, and other textual content on-the-go. The app will also provide additional features such as voice input for text recognition or hints if there are any safety concerns detected by the LLM. For menus, allergic information will be prompted as well.

Technology Stack:

Development Tools: Android Studio for app development

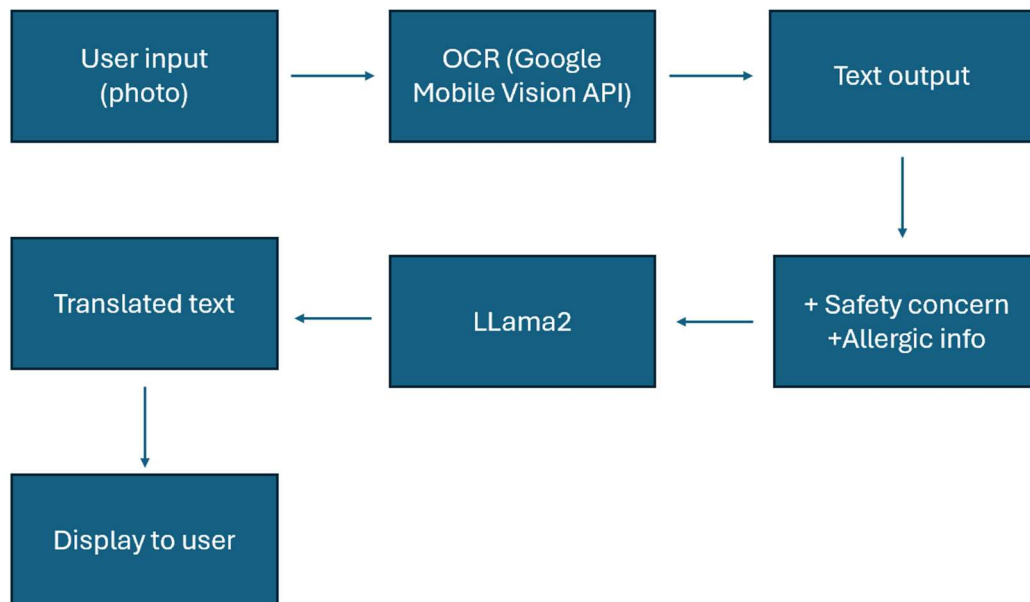
Programming Language: Java for Android app development

Libraries and APIs:

Llama 2: Integrated for advanced language processing and translation capabilities

Google Mobile Vision API: Utilized for OCR functionality to recognize text from images

Below is a diagram illustrating the interaction between the app components and Llama 2:



Development Methodology:

We plan to adopt an Agile development approach for this project. Agile methodologies will enable us to iterate quickly, incorporate user feedback, and deliver a high-quality translation tool within the specified timeline. This approach is well-suited for a project with evolving requirements and a focus on user-centric design.

Conclusion:

In summary, our proposal outlines the development of a tourist translation tool that integrates OCR for text recognition and Llama 2 for translation services. We believe that this app will significantly enhance the travel safety and experience for tourists by providing them with a convenient and reliable means of overcoming language barriers.