

Project Proposal: Trip Planner Assistant

Idea:

Our project aims to develop a planner program that simplifies travel planning. Instead of having to search different websites for flights, hotels, and attractions, our program gathers all this information in one place and creates a complete travel plan suggestion which can be used as a basis to book the trip.

Goal:

We are building a digital travel assistant that works as a text-based program. Through a question-and-answer dialogue, the assistant helps users plan their trip by automatically finding suitable flight connections, hotel options, tourist attractions, weather forecasts, and even generating a personalized packing list. The final travel plan is exported as a clear, well-structured PDF document that can be printed or saved on a smartphone.

Technical Implementation

Project Type: Command-line prototype

Main Objective:

A functional command-line prototype written in Python with a modular architecture.

Architecture Approach:

We will first build a command-line interface (CLI) for travel planning purposes. The logic will be separated from the user interface to make future extensions easier.

Core Features

- **Destination Input:** Country and city selection
- **Travel Alerts:** Safety checks via official APIs
- **Flight Suggestions:** checking flights for different dates, using APIs such as Skyscanner or AviationStack
- **Hotel Suggestions:** checking hotels for different dates and duration of stays, using Booking.com or Expedia APIs
- **Attractions:** checking possible sightseeing destinations or attractions in the area, Integration with Google Places or SerpAPI
- **Weather Forecast:** checking the weather at the destination using OpenWeatherMap API
- **Packing List:** Automatically generated based on selected activities
- **PDF Export:** Summary of all chosen trip details as a downloadable document

Success Criteria

- **Minimum Goal:** A working CLI prototype with at least five API integrations
- **Vision:** A modular and easily extendable codebase