Lab- Let's Try

Build a Travel Planner AI Assistant

🎯 Objective

Design a prompt-based Generative AI assistant that helps users plan a short vacation. The assistant should provide meaningful, structured, and engaging responses using prompt engineering techniques.

📌 Task Overview

Your team will work together to:

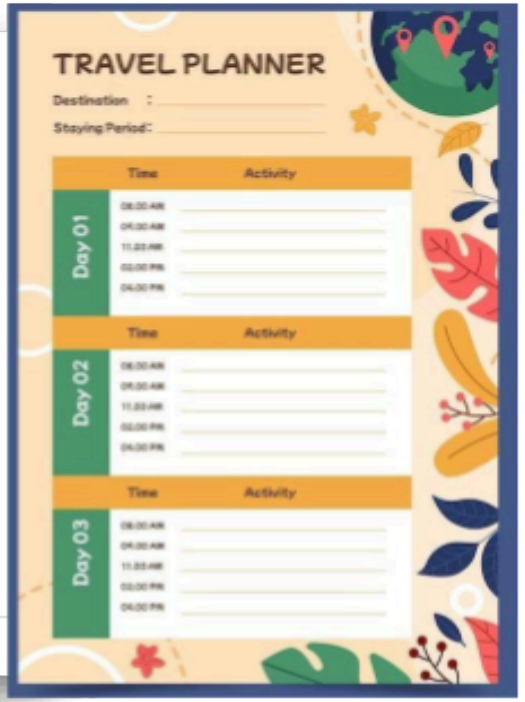
1. Define a **user need** (e.g., a cultural trip, beach getaway, food-focused vacation, etc.)
2. Write and test three levels of prompting:
   - **Zero-shot prompt**
   - **Few-shot prompt**
   - **Refined prompt with role + format**
3. Use a GenAI tool (like ChatGPT) to test and evaluate your prompts.
4. Reflect on how prompt design impacts the quality of the output.
5. Summarize your results in a short presentation or poster.

✍️ Deliverables

- 3 tested prompts (zero-shot, few-shot, refined)
- Output samples for each prompt
- A short reflection on what worked best and why
- A visual summary (can be slide, board paper, or digital)

🧠 Examples of Use Cases (Pick one or invent your own):

- Weekend in a historical city
- Adventure trip for teens
- Cultural tour across multiple countries
- Eco-friendly vacation for nature lovers
- Honeymoon destination suggestions
- Tech conference planner for developers
- Student budget-friendly travel plan
- AI-generated tour for photographers
- Family-friendly beach holiday
- Remote work & travel (workation) experience



Exploring AI Tools for Your Track

Objective:

Each team will select one AI tool relevant to their technical track, explore its features, and demonstrate how it can be applied to a real-world use case related to their field.

Instructions:

- Your technical track (e.g., Cyber Security, Mobile Development, etc.).
- Select one AI tool commonly used in this domain.
- Research the tool and prepare:
    - A brief overview of the tool.
    - Key features and benefits.
- Identify a task or challenge in your domain and explain how the AI tool can help solve or enhance it.
- Demonstrate a simple solution, explanation, or code snippet (Java preferred) showing how the tool could be applied.

Exploring AI Tools for Your Track: Example Use Cases

Animations and Motion Graphics	Use RunwayML to generate background animations or automate facial motion capture.
AI and Machine Learning	Use Vertex AI to build and deploy an image classifier with minimal code.
Architecture, Engineering and Construction Informatics	Use AI to optimize floor plan layouts or simulate energy efficiency.
Cloud Platform Development	Use AI to forecast traffic and auto-scale cloud infrastructure.
Cyber Security	Use an AI-powered SIEM to detect unusual login behavior or attacks.
Data Management	Use natural language to SQL tools (like Text2SQL) to make querying databases easier.
Digital IC Design	Use AI to analyze and predict errors in VLSI layout schematics.
Embedded Systems	Use TinyML to run gesture detection directly on an edge device.
ERP Consulting	Use an AI assistant to automate report generation in SAP.
Game Programming	Use an LLM to generate character dialogues based on player input.
Geoinformatics	Use AI to classify land types in satellite imagery.
Industrial Automation	Use computer vision to inspect product quality on assembly lines.
Mobile Applications Development	Integrate AI-powered voice recognition for note-taking or control.
Professional Web Development & BI-Infused CRM	Use an AI recommender to personalize CRM dashboards.
Software Testing & Quality Assurance	Use AI to predict where bugs are likely based on historical data.
Telecom Applications Development	Use AI to monitor signal strengths and preemptively detect weak zones.
Web & User Interface Development	Use an AI tool to generate responsive UI layouts from sketches or prompts.