

# **Prompt Engineering Portfolio**

Sai Karthik Nidamarthi

*Project 1: Hotel Booking Assistant (Goa)*

**Final Evaluation Report**

### **Project Title:**

Hotel Booking Assistant – Personalized Goa Holiday

### **Objective:**

To design and refine prompts that simulate a real-world hotel booking assistant for solo travelers in Goa, ensuring structured output aligned with user needs.

### **Problem Statement:**

Users often face challenges in finding hotels that match specific needs such as private location, budget, solo-traveler friendliness, and additional amenities like cab pickup/drop. The goal was to generate structured, refined outputs that address all requirements clearly.

### **Dataset:**

Synthetic scenario created using user’s requirements: Hotel in North Goa, 4–5 star, private beach access, solo-traveler friendly, budget INR 5000–8000, cab pickup/drop, check-in 14th Oct, check-out 17th Oct.

### **Prompt v1:**

I want to book a hotel in North Goa, 4–5 star rating, private, near private beaches, solo traveler friendly, with good food and reasonable amenities.

### **Raw Output v1:**

The AI suggested hotels but without structured booking details, dates, and budget alignment. Output lacked format for professional use.

### **Refined Prompt v2:**

Generate a structured hotel booking summary for North Goa: 4–5 star, private beach access, solo-traveler friendly, budget INR 5000–8000, check-in 14th Oct, check-out 17th Oct, cab pickup/drop included. Present in a professional table format.

### **Final Output:**

A professional structured table including hotel names, budget fit, amenities, beach proximity, and travel services. Output aligned with user’s complete requirements.

### **Post-processing / Code (brief):**

Refined AI output into a tabular report format suitable for portfolio showcase. Optionally export to PDF/DOCX for professional use.

### **Visualization:**

Hotel booking comparison table (included in final output). Showcases AI’s ability to structure information clearly.

**Insight / One-line Summary:**

Prompt refinement transformed a vague request into a structured, interview-ready booking assistant example.

**Skills Demonstrated:**

- Zero-shot & refined prompting
- Output structuring (tables, formatting)
- Real-world use case simulation (hotel booking)
- Requirement analysis & contextual prompt engineering
- Portfolio documentation in professional formats (DOCX/PDF)

**Evaluation Rubric:**

Criteria	Score (/10)	Remarks
Understanding of Problem	9	Clear breakdown of hotel booking requirements.
Prompt Design & Refinement	8.5	Improved from vague prompt to structured output.
Output Structuring	9	Final output presented in a professional tabular format.
Practical Relevance	9	Real-world use case directly applicable to travel assistants.
Presentation & Documentation	9.5	Well-structured and formatted in DOCX for portfolio.

Final Percentage Secured: 88%