🧳 Travel Chatbot — Agent Orchestration Plan

🕐 Goal

Help individuals or groups plan trips by: - Finding suitable housing. - Suggesting the best places to see, eat, and enjoy. - Optimizing choices to fit the defined budget and desired standard (economy, standard, luxury).

🕹️ Agents and their Roles

✂️ Accommodation Agent

Purpose:
Find the most appropriate housing options in the specified location.

Inputs: - Location - Dates - Group size - Budget range - Preferred standard (economy / standard / luxury)

Outputs: - Ranked list of accommodation options (with price, location, rating) - Booking links or contact details if available

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🖋️ Experience Planner Agent

Purpose:
Discover and rank activities and locations to visit at the destination.

Inputs: - Location - Interests/preferences (nature, nightlife, culture, food, etc.) - Available time/days - Desired standard (local hidden gems, premium experiences, etc.)

Outputs: - Suggested itinerary with: - Top attractions - Best dining spots - Entertainment/recreation options - Estimated cost per activity

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🛏️ Budget Optimizer Agent

Purpose:
Ensure the plan fits the tourist's budget while maximizing experience.

Inputs: - Output from Accommodation Agent - Output from Experience Planner Agent - Total budget (or per-person budget)

Outputs: - Optimized combination of accommodation and activities: - Stays within budget - Balances quality vs. cost - Shows trade-offs if applicable (e.g., "Upgrade to premium housing and cut one activity") - Final recommended itinerary + total estimated cost

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🪜 Workflow

✅User provides: - Location - Dates - Group size & preferences - Budget & standard

⬇️ Then: - Accommodation Agent finds suitable housing. - Experience Planner Agent finds possible activities. - Budget Optimizer Agent takes both outputs and adjusts for budget constraints.

☪️Final output: - Optimized trip plan: housing + activity itinerary + cost breakdown

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🧰Extensions & Enhancements

Potential future features: - Group coordination: poll members for preferences. - Local transportation suggestions. - Integration with booking APIs for instant reservations. - Dynamic re-planning if budget or preferences change.

This document describes the agent orchestration plan for the Travel Chatbot clearly for the development team and stakeholders.