

20TH ANNIVERSARY EDITION

WSO2CONASIA

— PLATFORMLESS MODERNIZATION

Build AI Applications, Tools and Agents



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Outline

- What is AI transformation
- Scenario to explain AI
- How to apply AI transformation: step-by-step
- WSO2 Integrator to Save!
- Build AI Transformation using WSO2 Integrator

AI Transformation for Your Business!

- What is AI transformation
 - Enhancing business operations with AI for better UX, productivity and unlock new capabilities
- Why AI is important?
 - Why now?
- Is it a choice? Noooo...
- How AI can be integrated into the business
 - Let's discuss step-by-step



Introducing O2 Travels



Case Study: O2 Travels

- A platform that helps customers plan and book their ideal trip:
 - 🏨 **Hotel Discovery** – Browse and search hotels by preference
 - 📅 **Availability Check** – View real-time room availability and pricing
 - ✅ **Hotel Booking** – Securely book and manage reservations
 - 🗒️ **Reviews** – Read and write hotel reviews



O2 Travels: User Experience

The screenshot displays the O2 Trips website interface. At the top, a dark blue navigation bar features the O2 Trips logo and tagline "Your Travel Companion" on the left, and user account options "Welcome back" and "Sign Out" on the right. Below this is a white secondary navigation bar with "Search Hotels" (highlighted in orange), "My Bookings", "Profile", and "AI Assistant".

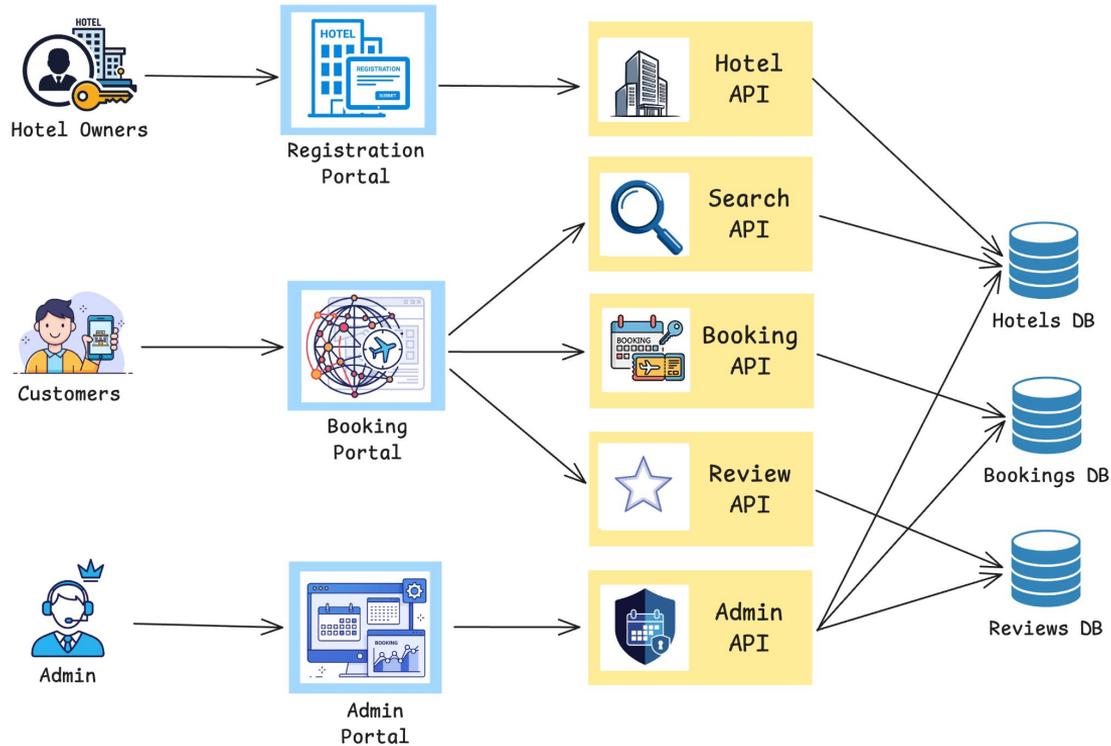
The main content area is dominated by a large banner image of a tropical resort with the text "Find Your Perfect Stay" and "Search hotels, resorts, and vacation rentals around the world".

Below the banner, a "Search Filters" sidebar on the left allows users to specify "Where are you going?" (City, destination or hotel name) and "When will you be staying?" (Check-in and Check-out dates). The main results area shows "13 hotels found" and a "Sort by: Recommended" dropdown.

Two hotel listings are visible:

- Knuckles Wilderness Lodge**: Located in Matala, Sri Lanka. Price: \$95. Rating: 4.7 stars. Amenities: Solar Power, Rainwater Harvesting, Organic Garden, +8. A "View" button is present.
- Bambarakiri Eco Lodge**: Located in Matala, Sri Lanka. Price: \$78. Rating: 4.3 stars. Amenities: Eco-Friendly Practices, Tea Plantation Tours, Hiking Trails, +6. A "View" button is present.

O2 Travels: System Architecture



O2 Travels: Data as a Strategic Asset

- **Customer Data**
 - Booking History – Past trips and preferences
 - Search Behavior – Filters, views, abandoned bookings
 - Reviews – Hotel feedback and sentiment
- **Hotel & Operational Data**
 - Hotel Info – Location, amenities, pricing, availability
 - Trends – Seasonal and regional demand patterns
 - External Data – Weather, events, flights, maps



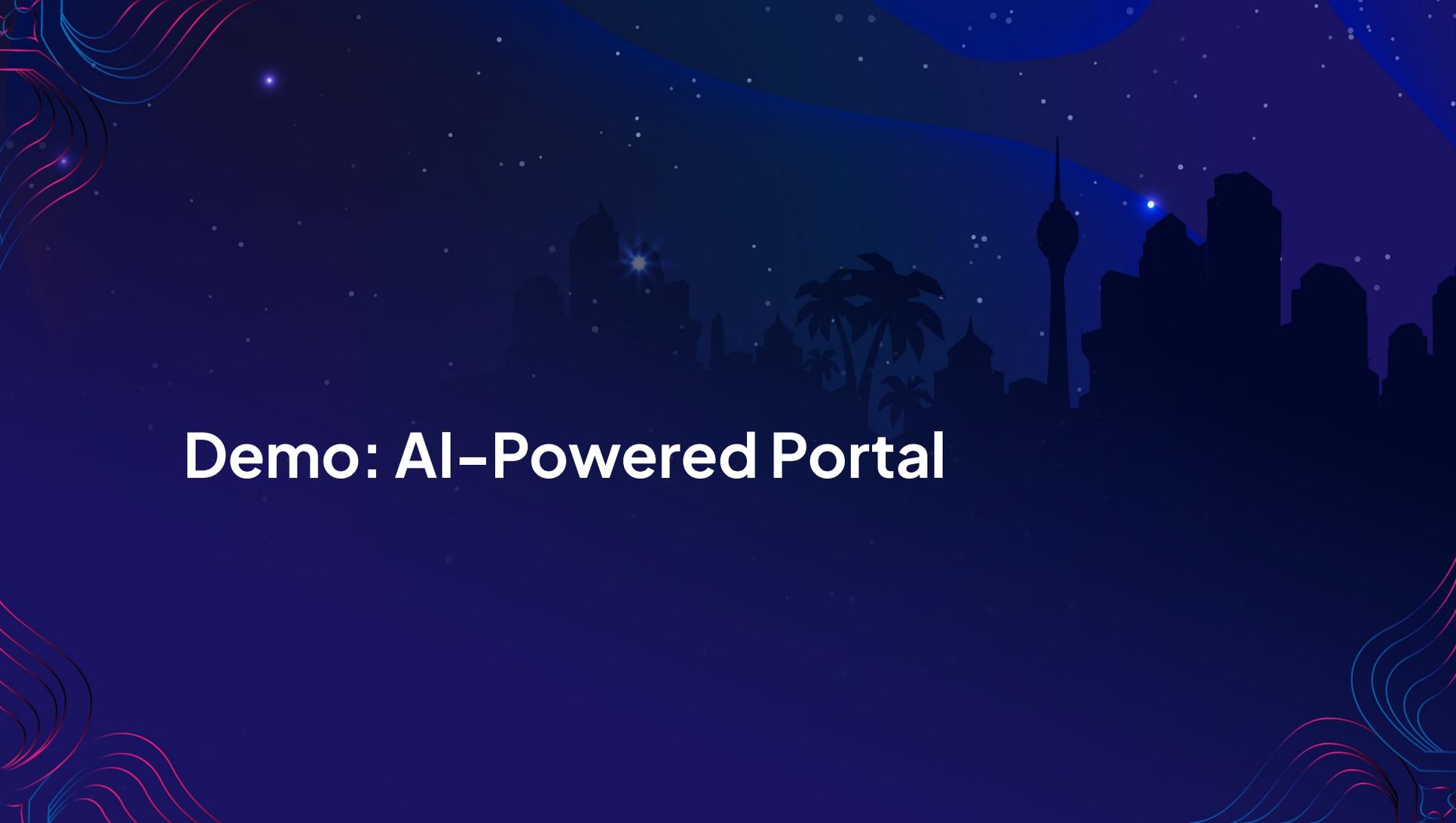


AI Transformation for O2 Travels

Envisioning AI Transformation for O2 Travels

- The Envisioned Experience
 - An **interactive, intelligent UX** for planning and booking
 - Leverage **strategic data** (e.g., booking history, reviews, search behavior) to deliver personalized suggestions
 - Bridge the gap between **customers and hotels** using AI-powered assistance
- Key Question:
 - *Can we achieve this transformation without touching core business APIs?*





Demo: AI-Powered Portal

AI- Powered Trip Planner

- **User Experience Requirements:**
 - Natural conversation to plan and book trips
 - Smart assistant that understands user's preferences based on past activities
 - Ability to ask hotel-specific questions
- **Architecture Considerations:**
 - Do we need GenAI workflows, RAG, or Agents?
 - What are the right questions to ask?

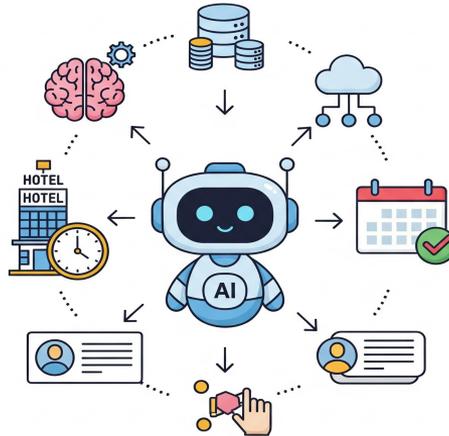


GenAI Integration – Helpful, But Limited

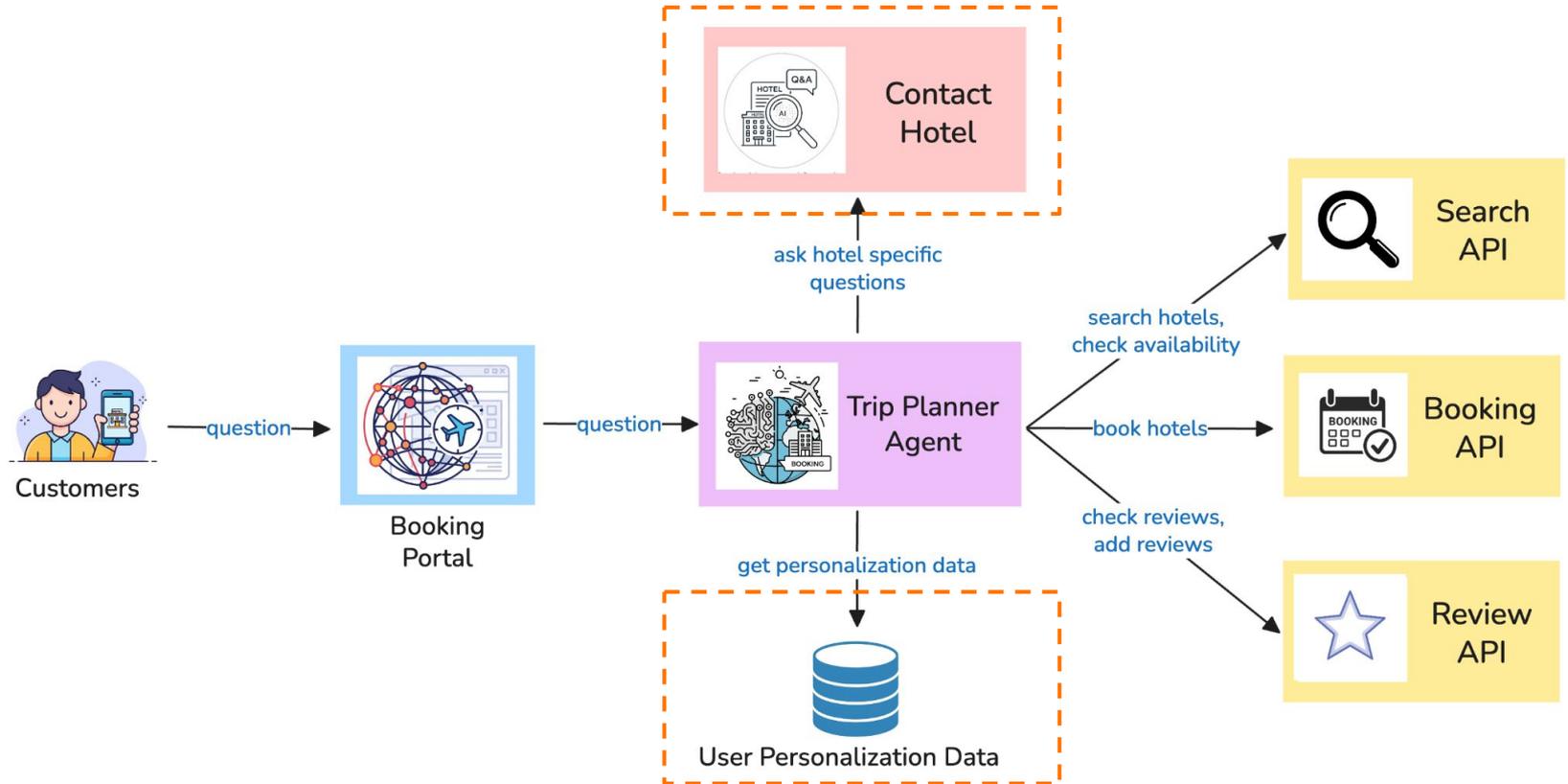
- User says:
 - *“I want to plan a 5 day trip to Sri Lanka.”*
-  What GenAI Can Do:
 - Understands the request (intent + entities)
 - Generates a useful response based on prompt data:
 - *“Great! Based on your preferences, I’d recommend exploring Sri Lanka’s hill country. Ella offers scenic hikes and eco-luxury hotels...”*
-  But It Stops There:
 - No access to live hotel availability
 - No booking functionality
 - No personalization across sessions

Why We Need AI Agents?

- To deliver true utility, we need **AI Agents** that can:
 - **Reason and act dynamically** based on user intent and evolving context
 - **Connect to business APIs** for real-time hotel availability and reservations
 - **Leverage personalized data** like booking history and reviews
 - **Act autonomously** to complete tasks such as booking and itinerary planning



Trip Planner Agent

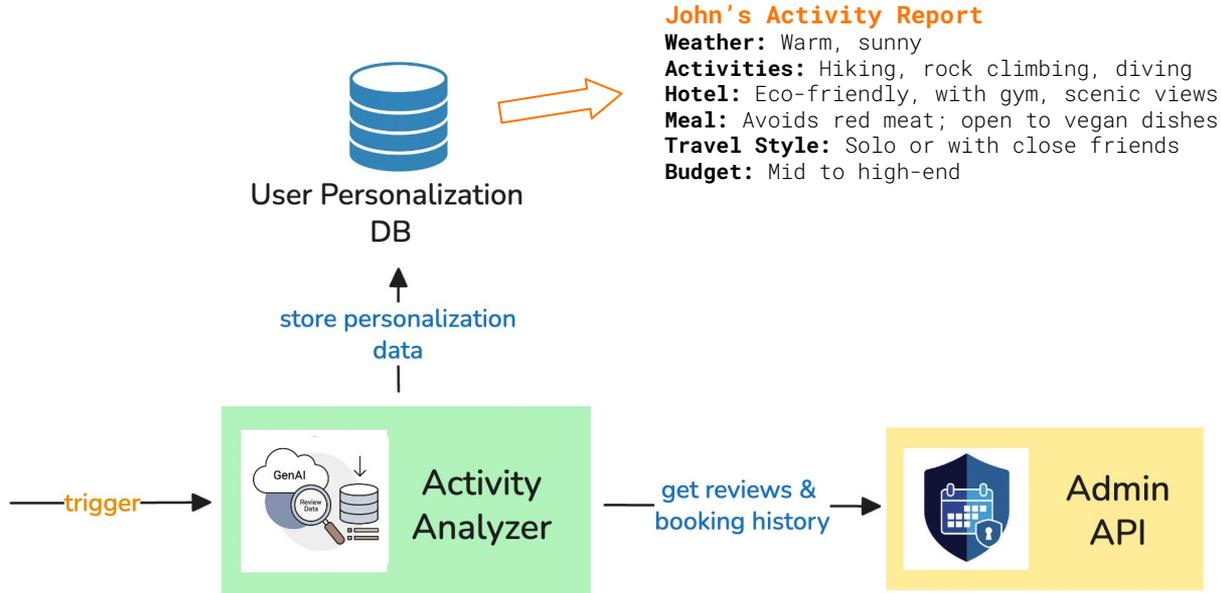


Personalizing Trip Planning

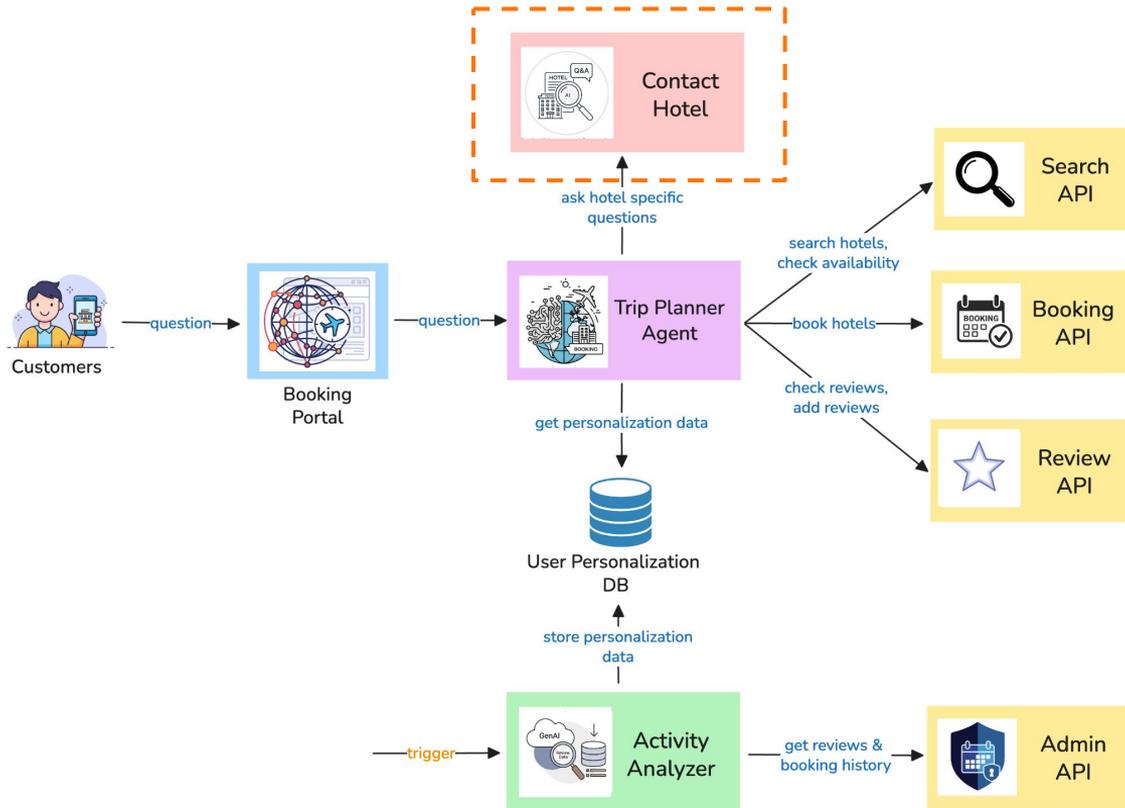
- **Using Strategic Data for Tailored Experiences**
 - Booking history, search behavior, and reviews used to build user profiles
 - Agent remembers preferences → Provides high-quality suggestions
- **How to transform strategic data into personalization profiles?**
- **Can we use AI Agents?**
 - Technically yes, but it's overkill for this scenario
 - Complex AI agents aren't necessary when a simple, fixed workflow suffices
- **A simple GenAI workflow analyzing historical data is sufficient**



Personalization Data Generation with AI



System Architecture with Personalization

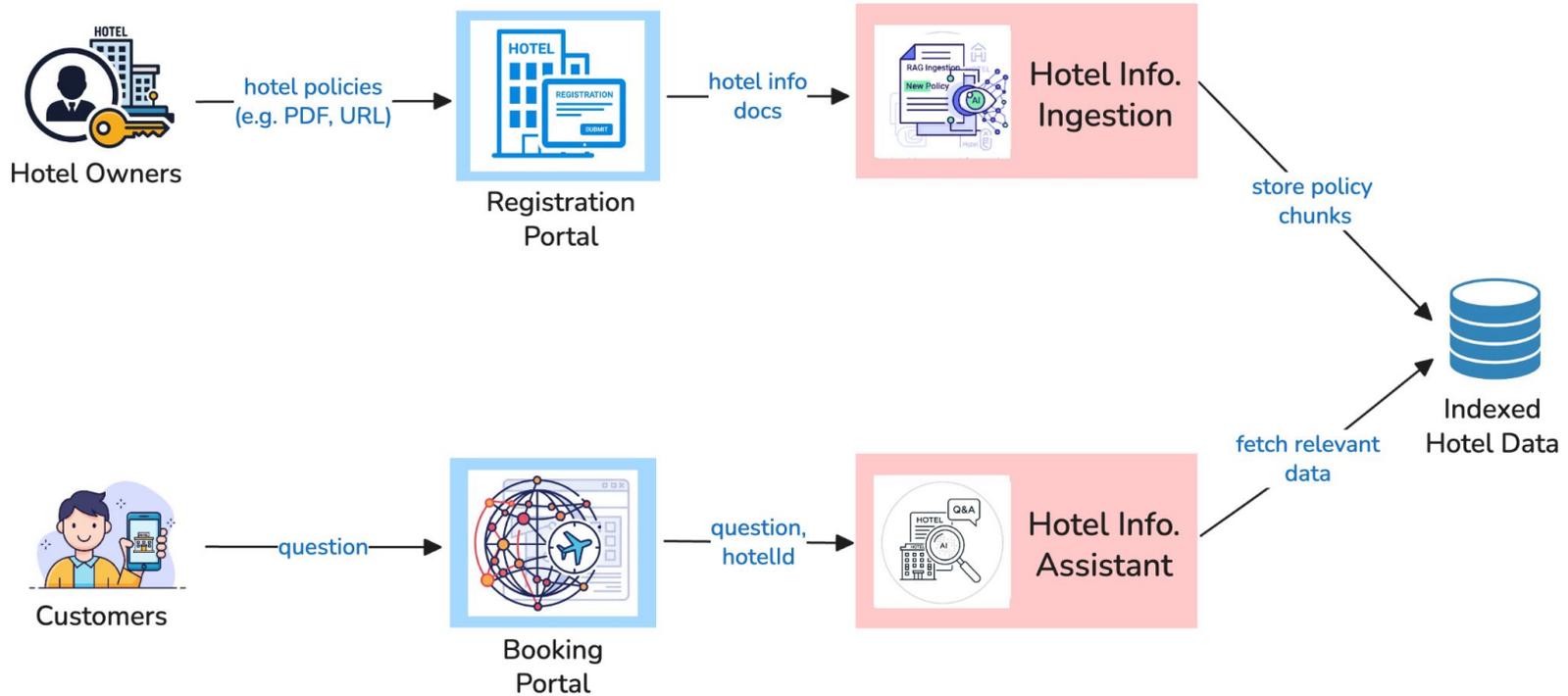


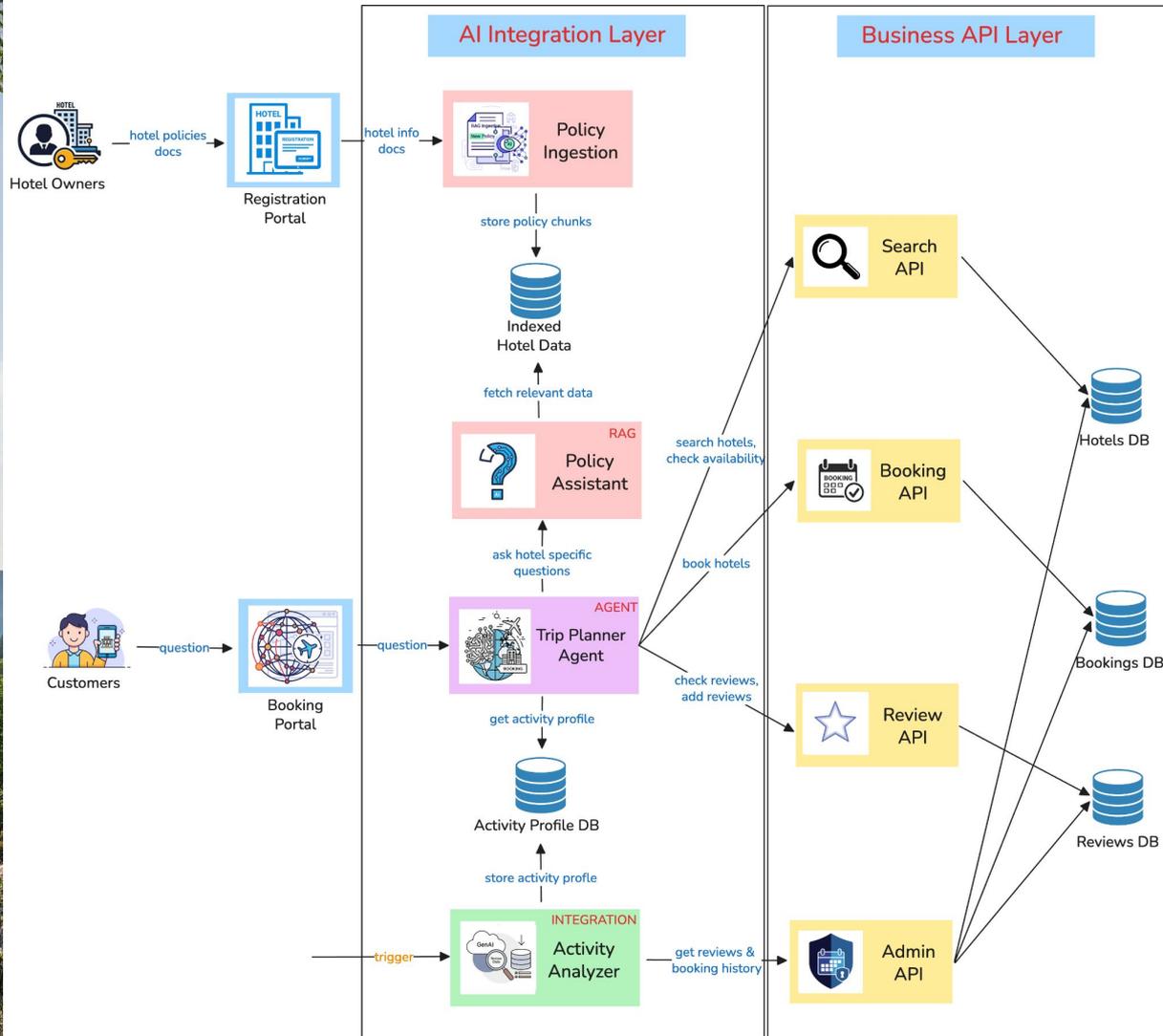
Rethinking "Contact Hotel"

- Today's Problem:
 - Users contact hotels for routine questions:
 - "Are pets allowed?"
 - "What's the cancellation policy?"
 - Hotel staff handle these repetitive queries manually
- Future Vision:
 - AI Assistant answers on behalf of hotel staff
 - Reduces support workload
 - Ensures faster, more consistent responses
- How?
 - Ingest hotel documents, policies, and websites
 - Use a RAG system to enable accurate, context-aware answers



Hotel Support Assistant



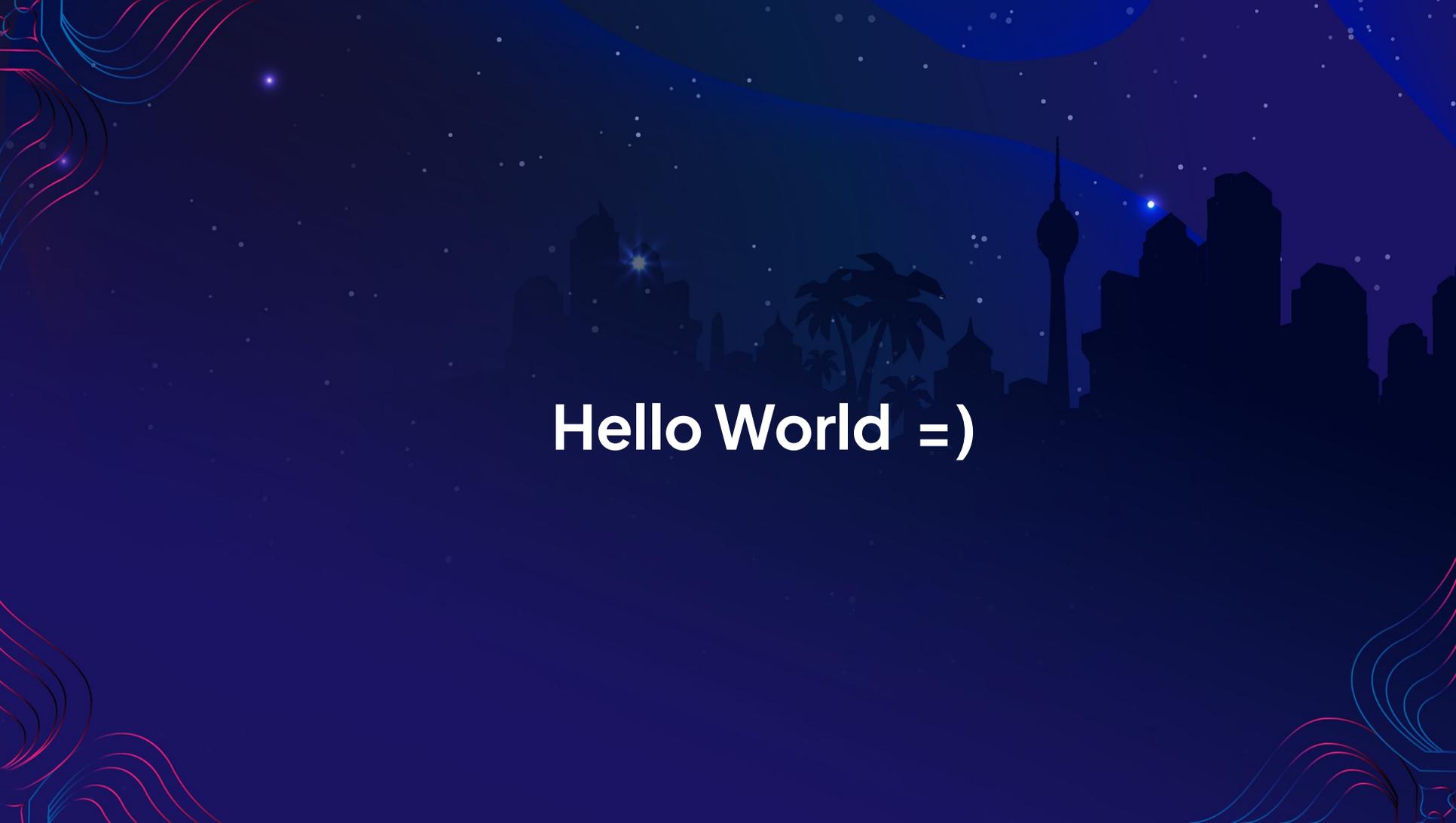


The background features a dark blue night sky with a city skyline silhouette. The skyline includes a prominent tower with a spherical top, palm trees, and various skyscrapers. The sky is filled with small white stars and a few larger, bright blue stars. In the top left and bottom right corners, there are decorative, glowing, wavy lines in shades of blue and red. The text "WSO2 Integrator to Transform your Business" is centered in a bold, white, sans-serif font.

WSO2 Integrator to Transform your Business

WSO2 Integrator for AI

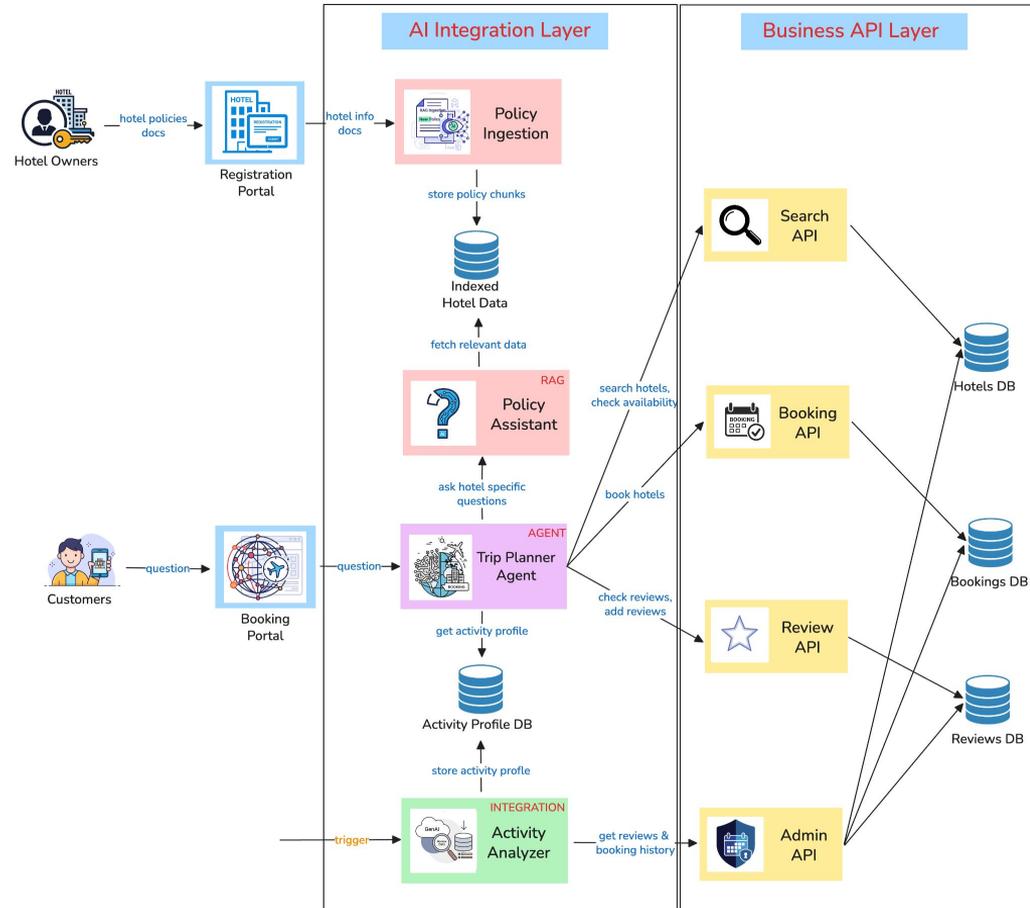
- What is WSO2 Integrator – BI
 - Next Generation Integration tool
 - True support for Low code and Pro Code
 - Built in the age of AI
- Why use WSO2 Integrator for AI
 - AI is an integration problem now
 - First class AI abstractions and developer tooling

The background features a dark blue night sky filled with small white stars. A silhouette of a city skyline is visible, including a prominent tower with a spherical top and several rectangular buildings. In the center, there are palm trees. The corners of the image are decorated with stylized, wavy lines in shades of blue and pink. The text "Hello World =)" is centered in a white, bold, sans-serif font.

Hello World =)

What are we going to build?

- User Activity Analyzer
- Hotel policy Assistant
- Travel Planner Agent



User Activity Analyzer (LLM Call)

- **Type - Automation**
 - ⦿ Could be an automation, cron job or from a triggered event.
- **Flow:**
 - ⦿ Get the user's hotel booking history
 - ⦿ Get the past reviews done by the user
 - ⦿ Send this to the LLM to create a personalized profile
 - ⦿ Add it to the database



Hotel Policy Assistant (RAG)

- Ingestion
 - ⦿ Source
 - ⦿ Could be ingested in bulk, based on file events.
 - ⦿ PDF documents of the hotel policies uploaded during the hotel registration.
 - ⦿ Target
 - ⦿ Vector database with **metadata** about the hotel information.
- Retrieval
 - ⦿ **Metadata** based retrieval.

Travel Planner Agent

- Type - Chat Agent
- Tools:
 - ⦿ Get Personalized Profile
 - ⦿ DB Call - Retrieve from User Activity Analyzer indexed data
 - ⦿ Search Hotels
 - ⦿ API Call
 - ⦿ Get Hotel Information
 - ⦿ API Call
 - ⦿ Weather Forecast
 - ⦿ Openweather MCP
 - ⦿ Query Hotel Policy
 - ⦿ RAG Retrieval - Retrieve from Hotel Policy Assistant

Key Takeaways!

- We discussed how to achieve AI transformation:
 - **Use Case:** Existing business – O2 Travels
 - AI transformation without altering core business APIs
- **WSO2 Integrator enables this transformation.**
 - Trip-planner Agent
 - Personalization GenAI workflow
 - Hotel Support Assistant powered by RAG
- **Next Steps:**
 - **Agent Identity & Security:** Build zero-trust agents to validate and secure agent actions
 - **GenAI Governance:** Guardrail and monitor GenAI traffic for safety, cost, and compliance



A dark blue background featuring a silhouette of a city skyline at night. The skyline includes various skyscrapers and a prominent tower with a spherical top. The sky is filled with small white stars and a few larger, brighter stars. In the bottom left corner, there is a small white icon of a heart with an ECG line. In the bottom right corner, the number '30' is visible. The text 'Question Time!' is centered in a large, white, sans-serif font.

Question Time!

A large orange circle containing a white question mark, positioned centrally below the main text.

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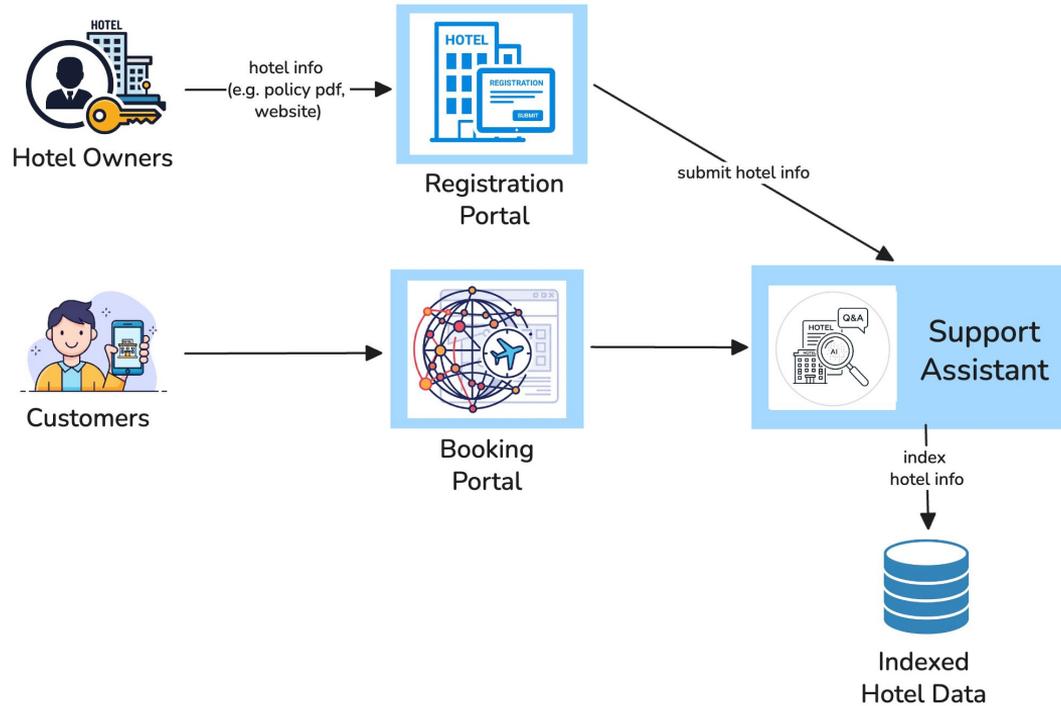
Thank you!

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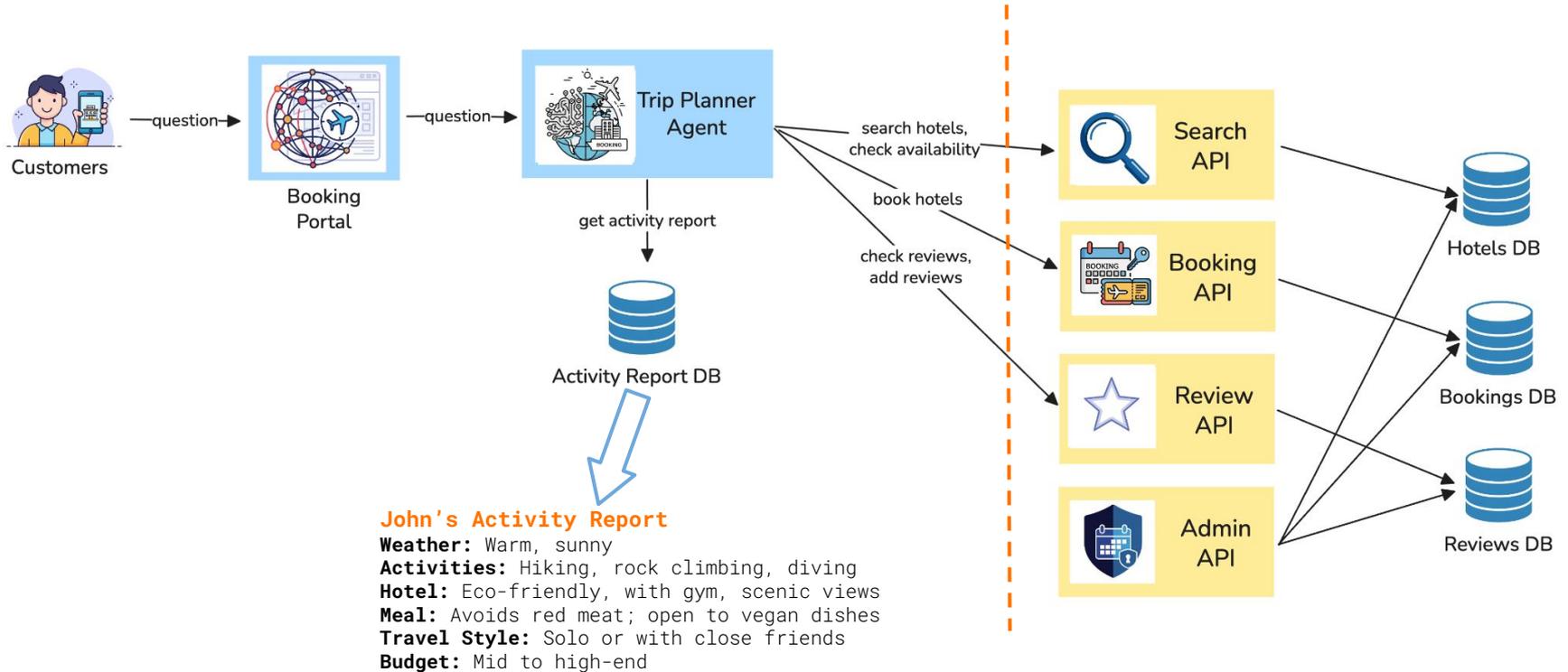
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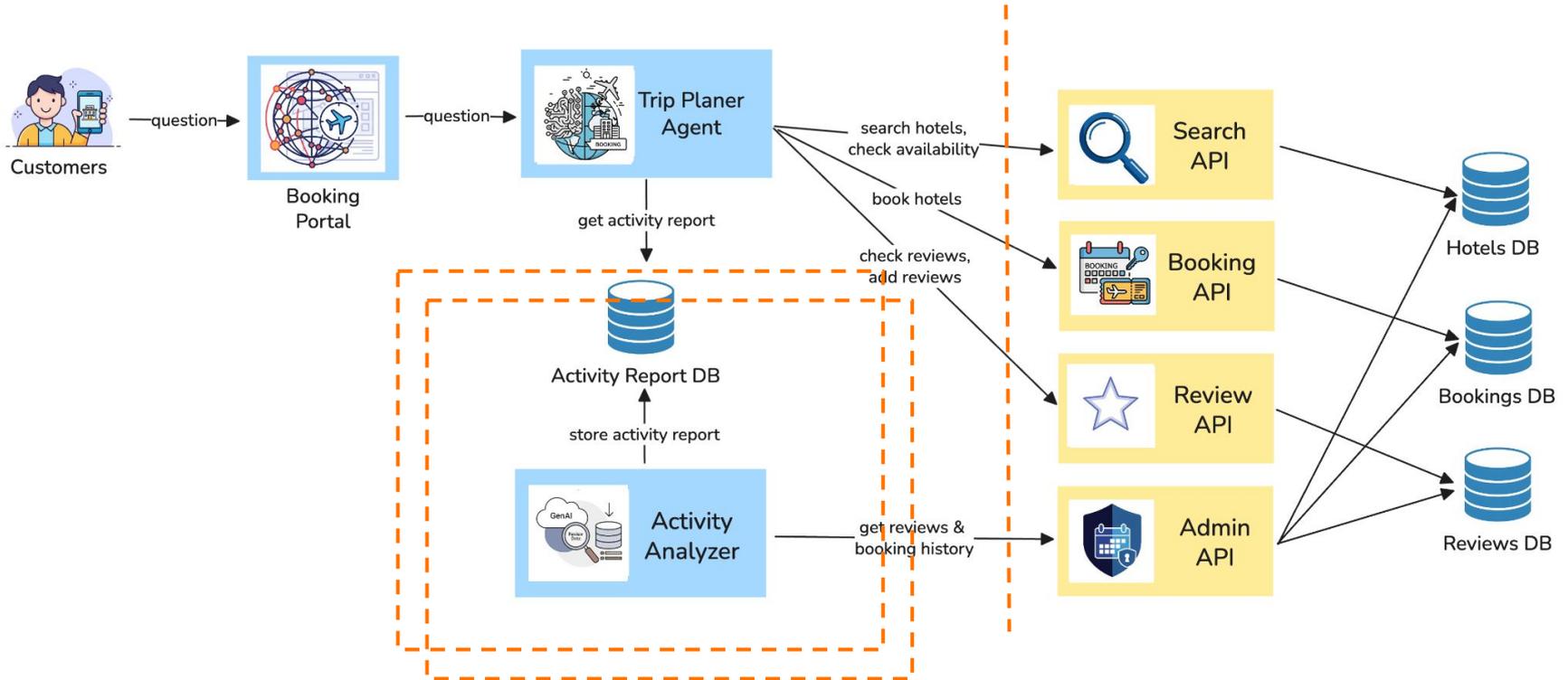
Support Assistant: Upload Data



Trip Planner Agent



Activity Analyzer



Support Assistant: Answer Questions

