

Phase 7: Integration & External Access

Travel & Tourism Management System

1. Named Credentials & External Services

- **Named Credentials:** Secure storage and management of API endpoints and authentication settings used to connect with external systems (like payment gateways, hotel/flight APIs).
 - **External Services:** Registered external REST endpoints as reusable services and described their operations in Salesforce for process automation and flow builder usage.
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2. Web Services (REST/SOAP) & Callouts

- **REST & SOAP API Callouts:** Implemented Apex callouts to fetch/send real-time data (e.g., availability, pricing, payment confirmation) to and from third-party travel partners and services.
 - Used custom Apex classes annotated with `@future(callout=true)` and `@AuraEnabled` for integration with both Lightning Components and background processes.
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3. Platform Events

- Configured **Platform Events** to enable event-driven, real-time integrations and notifications (for example, instant status updates when payment is received from an external gateway).
 - Used Apex triggers and subscriptions to listen/respond to cross-system changes.
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4. Change Data Capture

- Enabled **Change Data Capture (CDC)** on key objects like Booking and Payment to notify external middleware, ensuring that critical updates (e.g., booking confirmations, cancellations) are reflected in partner systems automatically.
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5. Salesforce Connect

- Used **Salesforce Connect** (External Objects feature) to display live hotel, flight, and weather information from external databases **inside Salesforce** without storing or duplicating data.
 - Set up **External Data Sources** and mapped them with Salesforce objects for real-time access.
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6. API Limits

- Monitored and respected Salesforce API limits (daily and hourly) for all integrations to ensure system stability and compliance.

- Implemented error handling and retries when limits are approached to prevent data loss.
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7. OAuth & Authentication

- Used **OAuth 2.0** for secure authentication to external APIs and web services (including Google, hotel suppliers, email services).
 - Configured Connected Apps and Remote Site Settings for authentication tokens and managed their scopes.
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8. Remote Site Settings

- Whitelisted trusted third-party endpoints using **Remote Site Settings** in Salesforce setup, enabling callouts and integrations only to approved external systems.