Train Ticket Booking System

Phase-1:Problem Understanding and Industry Analysis

1. **Requirement Gathering**

* **Functional Requirements**

**a) Train Schedule Search**

* Users can search for trains by:
  + Source Station
  + Destination Station
  + Date of Travel
* Display availability of seats.
* Show departure and arrival times for available trains.

**b) Ticket Booking**

* Allow customers to book tickets for selected trains.
* Collect customer details (Name, Contact Info, etc.).
* Reserve seats automatically upon booking.
* Generate unique Booking ID.
* Send booking confirmation via email/SMS.

**c) Ticket Cancellation / Rescheduling**

* Allow customers to cancel booked tickets.
* Automatically update seat availability after cancellation.
* Process refund in wallet(not real-time).

**d) Real-Time Updates**

* Provide real-time updates of:
  + Seat availability
  + Train delays or cancellations
  + Booking confirmation status
* Notify customers automatically via email/SMS about status updates.

**e) AI-Powered Customer Support (AgentForce Chatbot)**

* Handle customer queries such as:
  + Train schedule information
  + Baggage policies
  + Refund process
  + Booking modification requests
* Assist users step-by-step in booking, cancelling, or rescheduling tickets via conversational UI
* **Non-Functional Requirements**

**a) Performance**

* System must respond to search requests in less time .
* Booking and cancellation transactions must be processed within less seconds.

**b)Availability**

* System should be available 24/7, with planned maintenance only during off-peak hours.

 Specific needs such as 24/7 customer service, real-time availability, and personalized travel suggestions.

### ****2. Stakeholder Analysis:****

* **Primary Stakeholders:**
  + Passengers (end users): Expect easy booking, quick support, and real-time updates.
  + Railway Operations Team: Need efficient booking management, scheduling, and report generation.
  + Customer Support Agents: Require tools for handling queries and managing bookings.

### ****3. Business Process Mapping:****

* The new automated process flow:
  1. Customer searches for available trains →
  2. Selects schedule and books ticket →
  3. AI AgentForce assists with FAQs, booking changes, or cancellations →
  4. Payment is processed →
  5. Confirmation & real-time notifications sent →
  6. Management monitors bookings via dashboards.

### ****4. Industry-specific Use Case Analysis:****

* **Use Case 1:** Passenger search the trains with source and destination
* **Use Case 2:**Passenger books a train ticket and receives instant confirmation.
* **Use Case 3:** Passenger cancels or reschedules a booking via chatbot.
* **Use Case 4:** AI AgentForce answers common customer queries (e.g., baggage policy, refund rules).
* **Use Case 5:** Railway management views real-time booking trends and customer feedback through dashboards.

### ****5. AppExchange Exploration:****

* + Automation app
  + Item:Email template for sending emails