

Train Ticket Booking System

PHASE-1

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
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- **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.
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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.
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3. Business Process Mapping:

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- 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.
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5. AppExchange Exploration:

- Automation app
- Item:Email template for sending emails