

# PRD — Travel (Bus) Booking MVP

## 1) Summary & Goals

Build a simple bus-ticket booking MVP: users search for a route, pick a seat, pay, and get a ticket.

**Success (MVP):** Users can (a) find a bus and lock a seat, (b) pay via UPI or Card and receive a ticket or a clear failure message.

**Out of Scope:** Cancellations/refunds, coupons/loyalty, multi-currency, round trips, complex seat layouts, operator policies.

## 2) Flows (with embedded constraints)

### Flow A — Search & Select Seat

**Goal:** User finds a one-way bus, selects an available seat, and provides contact details.

#### Steps

A1. Enter **Origin**, **Destination**, **Travel Date**.

- **Constraints:**
  - **Origin** ≠ **Destination**.
  - **TravelDate** must be **today +1 to +30 days** (no past/today).
  - Allowed values (see Parameter Dictionary).

A2. See list with **Departure Time**, **Bus Type** (Seater/Sleeper), **Seats Left**.

- **Constraint:** Show results only when route exists for the day (we'll seed test data to always have at least one result for valid pairs).

A3. Open seat map and select **Seat**.

- **Constraint:** Seat must be **Available** at click time (we re-check availability on select).

A4. Enter **Name**, **Phone (10 digits)**, **Email**; proceed to payment.

- **Constraints:** Phone must be exactly 10 digits; email must contain "@" and a domain.

**Output:** Draft **Booking ID** (temporary) created; seat **soft-locked for 10 minutes**.

### Flow B — Pay & Confirm Ticket

**Goal:** User pays via UPI/Card and gets a confirmed ticket.

**Prerequisite:** A valid draft **Booking ID** with a **soft-locked** seat from Flow A.

### Steps

B1. Choose **Payment Method**: UPI or Card.

- **Constraint:** Only these two methods are shown.

B2. Complete payment.

- **Constraint:** We simulate **Payment Outcome** as one of: **Success / Failure / Timeout**.

B3. Show result.

### 3) Parameters

Parameter	Values (small pool)	Notes / Constraints
UserType	Guest, Registered	No behavioral difference in MVP except prefilled contact for Registered.
Origin	<b>BOM, BLR</b>	Mumbai (BOM) or Bengaluru (BLR).
Destination	<b>BLR, BOM</b>	Must be different from <b>Origin</b> .
TravelDate	<b>T+1, T+7, T+14</b>	Any of these counts as valid (T = today).
BusType	Seater, Sleeper	Display only.
SeatPref	Window, Any	Display only; actual seat must be Available.
SeatStatus	Available, Booked	Must be <b>Available</b> at selection; re-check at click.
Phone	9999990001, 9999990002	Exactly 10 digits required.
Email	rahulmittal@example.com, aditishah22@example.com	Must contain “@” and domain.
PaymentMethod	<b>UPI, Card</b>	Only two methods in MVP.
PaymentOutcome	<b>Success, Failure, Timeout</b>	

### 4) Scenarios

#### Flow — Pay & Confirm Ticket

#### Happy Paths

- **UPI payment succeeds and ticket is issued.**  
With a valid Booking ID from Flow A, the user pays via UPI. The gateway returns

Success. The app confirms the booking, hard-locks the seat, displays a Ticket ID, and emails/SMSes the details.

- **Card payment succeeds.**

The user pays by Card; the gateway returns Success. The app issues one Ticket ID and shows the trip details.

### **Negative Scenarios**

- **Payment fails.**

The gateway returns Failure. The app clearly states “Payment failed,” releases the seat lock, and offers “Retry payment” and “Back to seats.”

### **Edge Cases**

- **Payment success but email/SMS send fails.**

The ticket is confirmed and visible on the confirmation screen, but notification send fails. The app shows “Ticket confirmed” with a “Resend email/SMS” button; no duplicate tickets are generated.