

Travel Booking Management System – Java

Overview:

Console-based Java app demonstrating OOP. Users can sign up, log in, view hotels & transport, book services, pay, cancel bookings, and admins can update prices. Implements State pattern and custom exceptions.

Features:

- Customer and Admin roles
- Sign up / Login
- View & update profile
- Browse hotels and book rooms
- Browse transport routes and book tickets
- Payments (wallet/UPI) and refunds
- Admin-only price updates
- State pattern for booking lifecycle

OOP Concepts Used:

Inheritance, Polymorphism, Abstraction, Encapsulation, Custom Exceptions, Collections, State Design Pattern.

How to Run:

1. Save as TravelApp.java
2. Compile: `javac TravelApp.java`
3. Run: `java TravelApp`

Sample Admin Credentials:

- ID: 1001, Password: qqq
- ID: 1002, Password: aaa

UML Diagram (Text Format):

User (abstract)
 Customer
 Admin

Hotel
Transportation
 Vehicle

Booking
 PendingState
 ConfirmedState
 CancelledState

Payment
ApplicationException