



Swami Keshvanand Institute of Technology, Management & Gramothan, Jaipur

Department of Computer Science and Engineering

Industrial Training Presentation

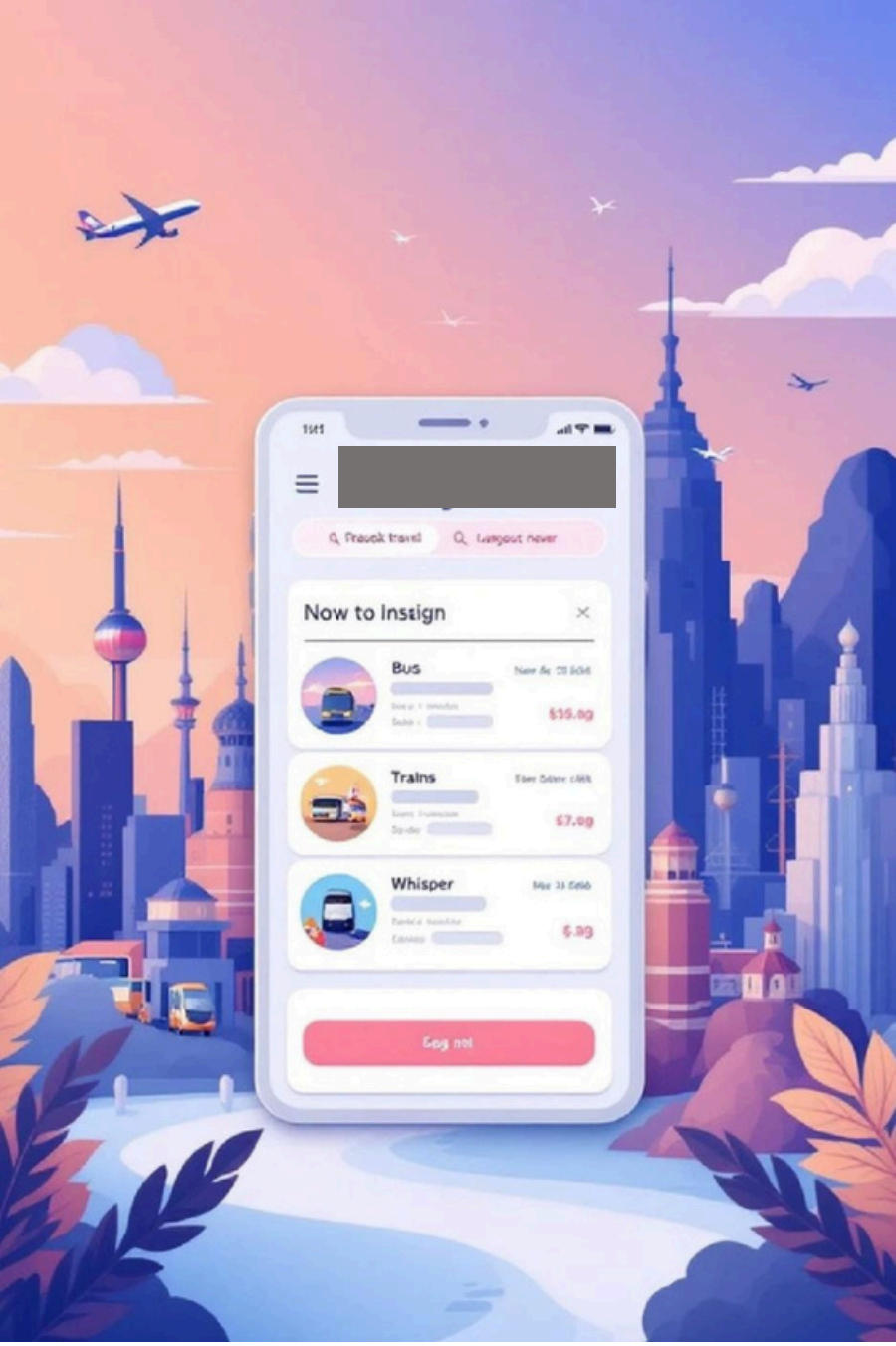
on

Travel Management System

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Travel Management System

(A Smart Platform for Seamless Travel Planning)

Plan. Book. Travel. All in one place.

Project Vision & Objectives



Streamlined Booking

Eliminate the complexity of managing multiple travel platforms by providing a unified booking experience for buses, trains, and flights.



Time Efficiency

Reduce travel planning time from hours to minutes through intelligent search algorithms and real-time availability updates.



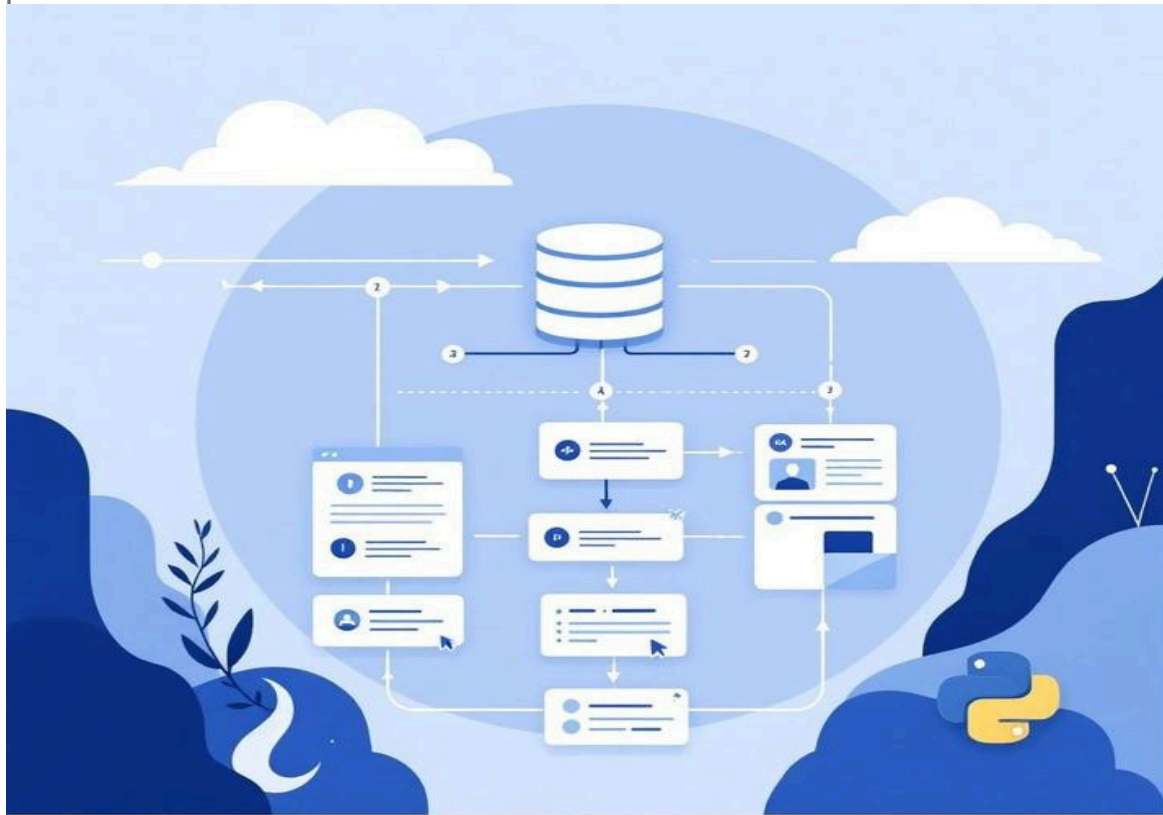
Data Privacy

User details like name, age, gender, mobile number, email, and ticket history are fully protected with encryption and strict privacy measures.

Our Tech Backbone

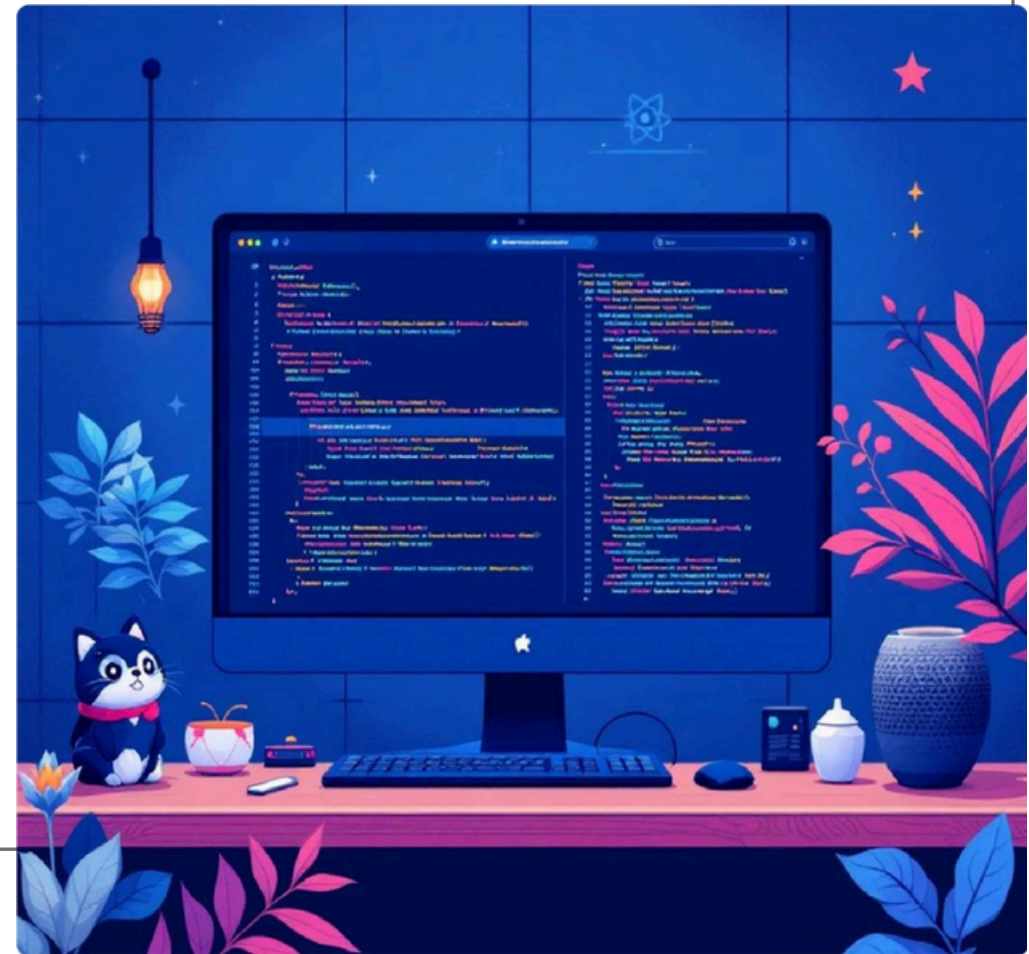
Backend Infrastructure

- **Java Spring Boot** for enterprise-grade RESTful services
- **MongoDB** for secure data management
- **RESTful APIs** for seamless integration



Frontend Experience

- **HTML** for semantic structure and accessibility
- **CSS** for styling, animations, and responsive
- **JavaScript** for interactivity and dynamic behaviour
- **Responsive Design** using media queries and flexible grids





System Blueprint for Travel Management

1) Traveler Login & Profile Management

- Secure login with encrypted credentials
- Personalized dashboard (past trips, preferences)
- API integration for location-based suggestions

2) Smart Travel Search Engine

Filters by destination, date, transport mode

Real-time availability across buses, trains, flights

3) Reservation & Payment Module

- Seat selection, fare calculation
- Secure payment gateway integration

FRONTEND CODE

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>Routify - A Premier Train, Bus & Flight Booking Experience</title>

<link rel="preconnect" href="https://fonts.googleapis.com" />
<link rel="preconnect" href="https://fonts.gstatic.com" crossorigin />
<link
  href="https://fonts.googleapis.com/css2?family=Poppins:wght@400;500;600;700;800&display=swap"
  rel="stylesheet"
/>
<link
  rel="stylesheet"
  href="https://cdnjs.cloudflare.com/ajax/libs/font-awesome/6.5.2/css/all.min.css"
/>
<style>
```

Follow link (ctrl + click)

Core System Features



Multi-Modal Search Interface

Users can seamlessly search for Trains, Buses, and Flights from dedicated tabs within a unified and consistent user interface.



Advanced Fare Options

Provides specialized fare categories for each travel mode, including Regular, Student, Senior Citizen, and Armed Forces, allowing for customized searches.



Travel History

Comprehensive booking history with downloadable receipts, travel insights, and quick rebooking options for frequent routes.



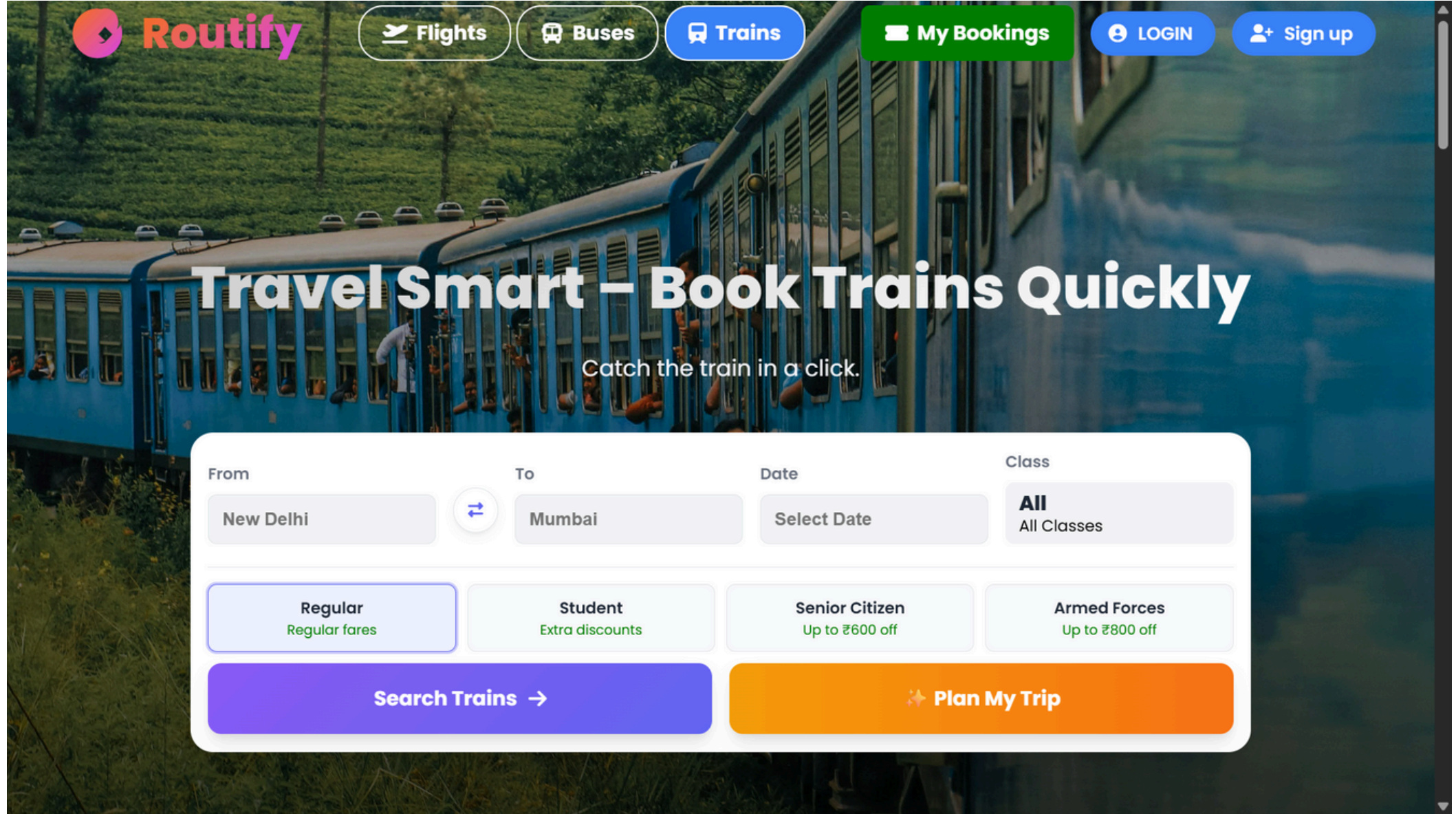
Real-time Updates

Instant notifications for booking confirmations, schedule changes, gate updates, and travel reminders via email and SMS.

BACKEND CODE

```
const express = require('express');  
const router = express.Router();  
const { signUp, login } = require('../controllers/authController');  
  
router.post('/signup', signUp);  
  
router.post('/login', login);  
module.exports = router;
```


USER INTERFACE

The image shows the user interface of the Routify website. The background is a large image of a blue train traveling through a green, hilly landscape. At the top left is the Routify logo. To its right are four navigation buttons: 'Flights' with a plane icon, 'Buses' with a bus icon, 'Trains' with a train icon, and 'My Bookings' with a calendar icon. Further right are 'LOGIN' and 'Sign up' buttons. The main heading 'Travel Smart – Book Trains Quickly' is centered in large white text, with the tagline 'Catch the train in a click.' below it. A white booking form is positioned in the lower half of the page. It contains fields for 'From' (New Delhi), 'To' (Mumbai), 'Date' (Select Date), and 'Class' (All Classes). Below these are four category buttons: 'Regular' (Regular fares), 'Student' (Extra discounts), 'Senior Citizen' (Up to ₹600 off), and 'Armed Forces' (Up to ₹800 off). At the bottom of the form are two large buttons: 'Search Trains →' and '✦ Plan My Trip'.

✈ Flights

🚌 Buses

🚂 Trains

📅 My Bookings

👤 LOGIN

👤+ Sign up

Travel Smart – Book Trains Quickly

Catch the train in a click.

From

New Delhi

To

Mumbai

Date

Select Date

Class

All
All Classes

Regular

Regular fares

Student

Extra discounts

Senior Citizen

Up to ₹600 off

Armed Forces

Up to ₹800 off

Search Trains →

✦ Plan My Trip


GIS Integration & Route Visualization



Map Features

Interactive route visualization

- Real-time vehicle tracking
- Traffic and weather integration
- Multiple map layer options
- GPS-based location services

 Maps enhance user confidence by providing visual confirmation of travel routes and estimated arrival times.

Future Enhancements

1. 🔍 AI-Driven Travel Insights

Our intelligent engine learns user behaviour to recommend optimal routes, booking windows, and cost-saving options—personalized for every traveller.

3. 🌐 Unified Transport Ecosystem

Seamless access to flights, trains, car rentals, ride-shares, and ferries—all in one platform. Say goodbye to fragmented bookings.

Mobile Application

1

2

3

4

2. 📱 Mobile-First Experience

Intuitive iOS and Android apps offer offline access, instant alerts, and secure biometric login—keeping users connected and in control, anywhere.

4. 📊 Predictive Business Intelligence

Business intelligence dashboard with predictive analytics for demand forecasting and dynamic pricing optimization.



Project Impact & Benefits

75%

Time Savings

Reduced travel planning
time through
centralized booking system

3x

User Efficiency

Faster booking process
compared to traditional
methods

99.9 %

System Reliability

Uptime achieved
through robust
architecture and
redundancy

The Travel Management System delivers measurable improvements in user satisfaction, operational efficiency, and scalable growth potential for expanding travel markets.



Thank You