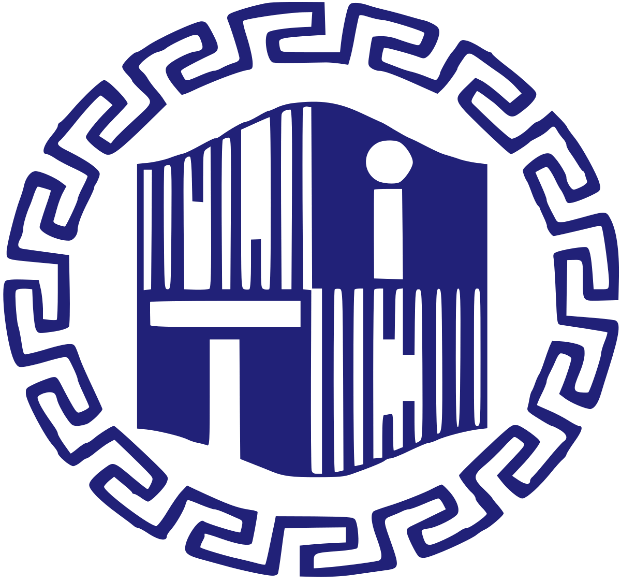
**CSBB 204: DBMS PROJECT SYNOPSIS**

# 

# Topic: "*YAATRA.COM:* (Let’s Start Your Train Journey With Us)"

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INTRODUCTION

In the age of digitalization and modern transportation, efficient management of train ticket bookings and train operations is paramount. The undersigned students of 2nd year

1. **MD. Wajid (221210069)**
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3. **Rizil Patel (221210089)**

have embarked on a project to design and implement a comprehensive database system for a Train Ticket Booking and Train Management Website.

Problem Statement:

Existing train ticket booking systems suffer from inadequate database management, leading to user inconvenience due to outdated information, operational inefficiencies for railway authorities, and lack user-friendliness and real-time information, leading to inconvenience for passengers, resulting in overall dissatisfaction and inefficiency in the railway ecosystem.

Case Study:

Database Design for Train Ticket Booking and Train Management Website

Aim:

The proposed project aims to develop a robust and user-friendly database system for a Train Ticket Booking and Train Management Website. This system will serve the needs of both passengers and railway staff in an efficient and organized manner. The system will encompass various aspects of train management and ticket booking.

Functionalities:

**1. User Registration and Authentication:**

- Allow users to create accounts with their personal details.

- Implement a secure authentication system to protect user data.

**2. Train Ticket Booking:**

- Provide a user-friendly interface to search for and book train tickets.

- Allow users to select the train class (e.g., sleeper, AC, first class).

- Display a list of available trains, their schedules, and ticket prices.

**3. Train Details:**

- Provide comprehensive information about all available trains.

- Include details such as train name, number, route, departure and arrival times, and stations.

- Show seat availability for different classes and dates.

**4. Booking Management:**

- Allow users to view and manage their booked tickets.

- Provide options for ticket cancellation and refunds (as per railway rules).

- Send email or SMS notifications for booking confirmations and updates.

**5. Live Tracking System:**

- Implement a real-time train tracking feature using GPS or railway data.

- Allow users to track their booked train's current location, estimated arrival time, and delays.

**6. User Profile and Preferences:**

- Enable users to customize their profiles.

- Allow them to save passenger information for faster bookings.

- Provide the option to set travel preferences, such as meal choices and seat preferences.

**7. Transaction History:**

- Maintain a transaction history for users to review their past bookings and payments.

**8. Customer Support and Feedback:**

- Offer customer support channels, such as chat, email, or a helpline.

- Allow users to provide feedback and ratings for trains and services.

**9. Notifications and Alerts:**

- Send notifications about upcoming trips or changes in train schedules.

- Implement push notifications or email alerts.

**10. Admin Dashboard:**

- Provide administrators with a dashboard to manage user accounts, train details, and bookings.

- Allow admin users to update train schedules, prices, and seat availability.

**11. Security and Data Privacy:**

- Implement security measures to protect user data and payment information.

**12. Integration with Payment Gateways:**

- Integrate with popular payment gateways to facilitate secure transactions.

**13. Localization and Multi-Language Support:**

- Offer the platform in multiple languages to cater to a diverse user base.

- Provide localized information for different regions.

Entity Relationship Model

