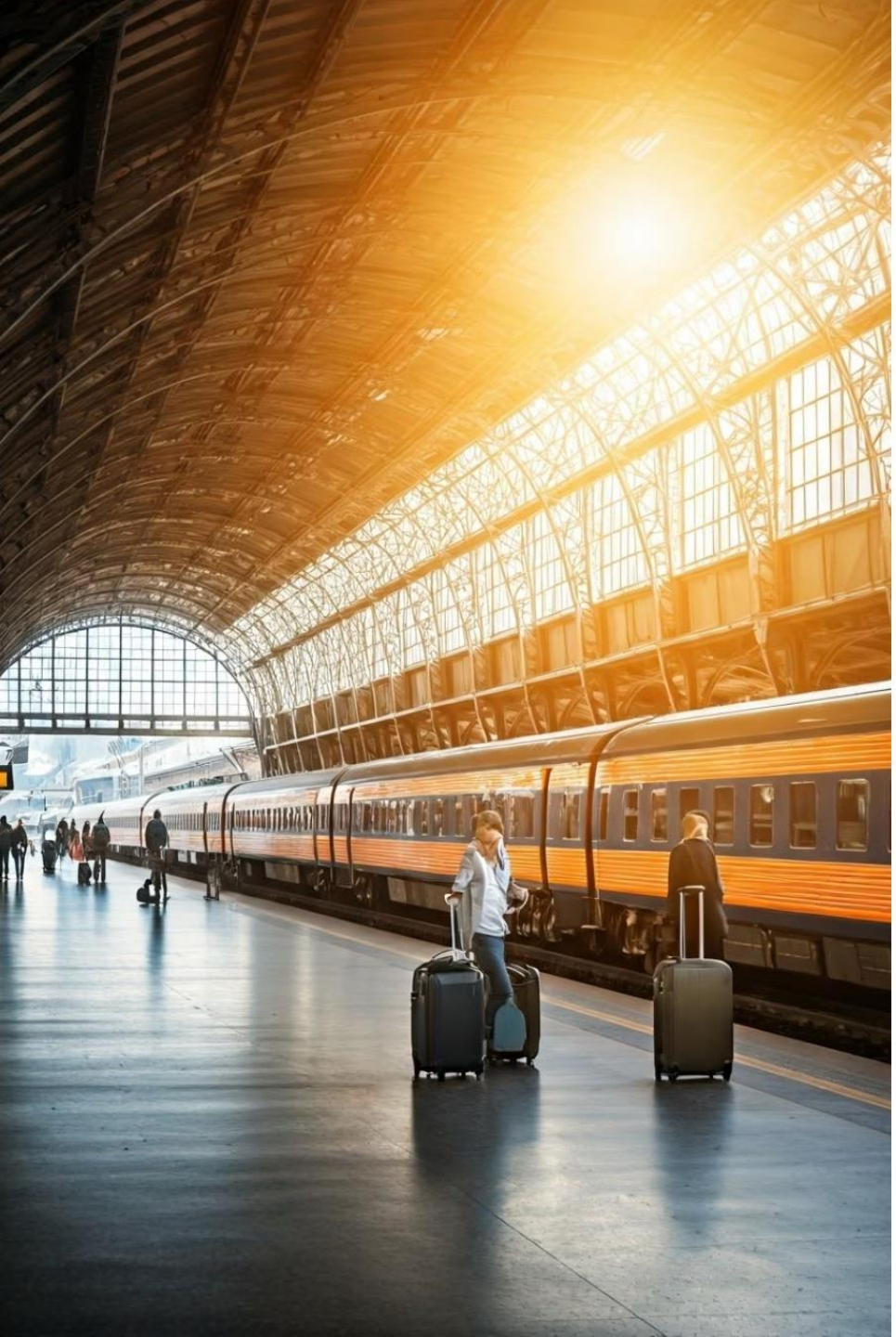

Railway Ticketing Management System

Understanding the Inference Mapping Process

Inference mapping analyzes the process of purchasing train tickets. This involves understanding customer behavior, ticket availability, and pricing strategies.

1 User Behavior

This involves studying how passengers search, browse, and buy tickets.

2 Ticket Availability

Predicting ticket availability based on historical data and real-time demand.

3 Pricing Dynamics

Understanding the factors that influence ticket prices and their impact on sales.

Data Collection and Preprocessing

Gathering and cleaning data from various sources, including booking systems, passenger databases, and external travel information sources.

Data Sources

- Booking Systems
- Passenger Databases
- External Travel Information

Preprocessing

- Data Cleaning
- Data Transformation
- Feature Scaling

Feature Engineering and Selection

Creating new features from existing data to improve model performance and selecting the most relevant features for model training.

Time of Day

The time of day impacts ticket demand and pricing.

Day of Week

Weekends and holidays have different demand patterns.

Route Distance

Distance influences travel time and ticket price.

Model Development and Training

Choosing a suitable model for predicting ticket demand and training it on the prepared data to learn patterns and relationships.

Model Types	Description
Linear Regression	Predicting ticket demand based on linear relationships between features.
Decision Trees	Creating a tree-like structure to make decisions based on specific conditions.
Neural Networks	Learning complex patterns and making predictions based on interconnected nodes.

CT & DT – SPSU – “TEAM SCOUT” – TASK#10

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