

# Railway Analysis

Home



Revenue



Performance



Journey



Travelers



## Objective

The purpose of this report is to provide a comprehensive analysis of the railway system.

The data contains train ticket sales from January to April 2024, including details on the type of ticket, the date & time for each journey, the departure & arrival stations, the ticket price, and more.

This exploratory analysis will provide insights which will further aid into making better decisions.

Below are the objectives of the report:

### 1. Customer Loyalty and Retention Analysis

Analyze customer loyalty and retention by identifying repeat customers, measuring their purchase frequency, and evaluating their impact on revenue over time.

### 2. Impact of Journey Time on Customer Satisfaction

Analyze how the actual journey time (from departure to actual arrival) impacts customer satisfaction, assuming delays reduce satisfaction levels (where satisfaction decreases as delay increases (e.g., -1 satisfaction point per 10 minutes of delay)).

### 3. Profitability Analysis Based on Ticket

Type and Class Perform a profitability analysis based on ticket type and class, with dynamic filtering to show insights for different periods or stations (consider 55% of the ticket price is the cost of a ticket).

### 4. Frequent Traveler Analysis with Dynamic Segmentation

Identify and analyze frequent travelers dynamically segmented by the number of journeys they made.

### 5. Analyzing Delays to Optimize Train Schedule

Optimize train schedules to minimize delays. To achieve this, you need to analyze the average delay for trains by the hour of the day, considering that delays can vary based on the time of departure.

[Home](#)**£7,41,921**  
Total Revenue**£38,702**  
£ Refunds**£7,03,219**  
Net Revenue**£4,08,057**  
Total Cost**£3,33,864**  
Total Profit**31,653**  
# Total BookingsMonth  
All[Revenue](#)[Performance](#)[Journey](#)[Travelers](#)

## Insights

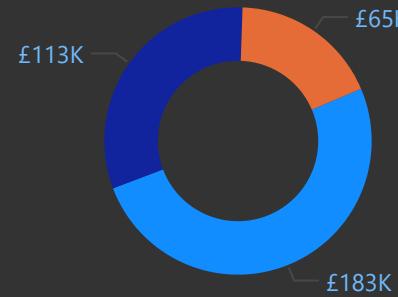
1. Total Revenue generated by Booking is £7,41,921. Although Total Refunds amounts to £38,702 hence Net Revenue generated is £7,03,219.

2. Total Cost incurred in Booking is £4,08,057.

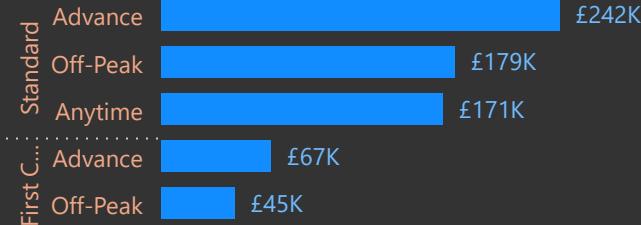
3. 8,400 Customers are gained in January Month generating a highest revenue gain of £2,04,399 and 1,097 of the customers were reduced in February, March has gained 763 and April again lost 352 customers.

4. Profits Made:  
Overall Profit made on Bookings is £3,34,864  
• Most by Ticket Type - £1,39,173 by Advance

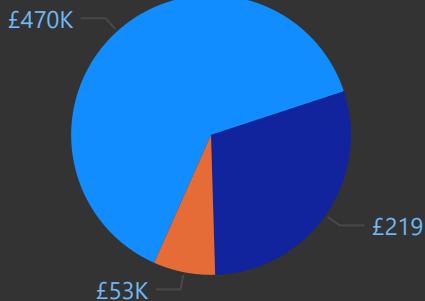
### Top 3 Revenue by Route



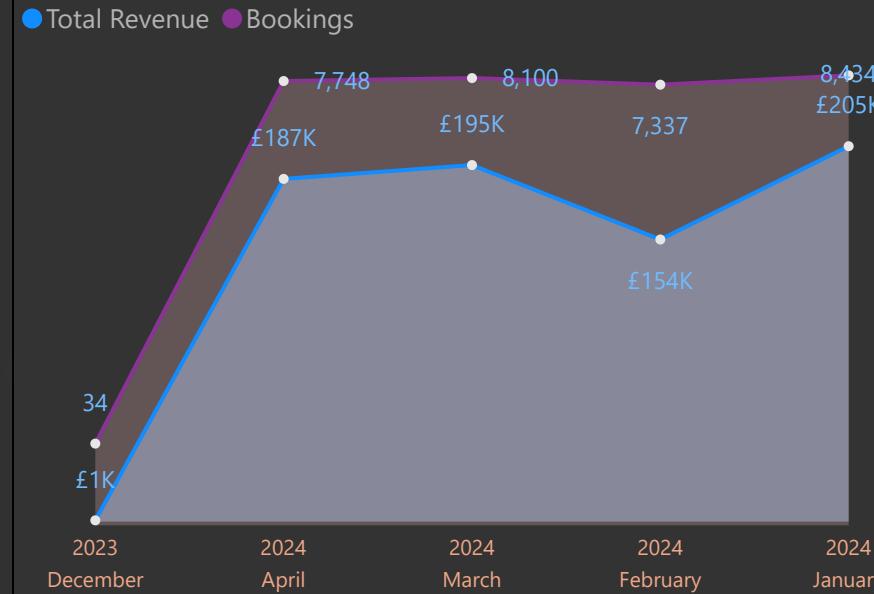
### Total Revenue by Ticket Class and Ticket Type



### Total Revenue by Payment Method



### Total Revenue and Bookings by Month and Year



### Total Revenue by Railcard



### Total Profit by Ticket Class and Ticket Type



31,653	# Total Journeys
27,481	# Trains On-Time
2,292	# Delays
1,880	# Cancellations
1,118	# Refunds
86.82%	# On-Time Trains %
7.24%	# Delayed Trains %
5.94%	# Cancelled Trains %
3.53%	% Tickets Refunded





