**About this project**

This report provides a comprehensive analysis on National Railway UK performance focusing on Passenger Rail Usage, Sales Performance, Railway Performance and Route analysis from January to April 2024. Key metrics are visualized through various metrics, including journey trends, peak hours, revenue trends, refund analysis, delayed reasons analysis, cancelation and delayed services analysis.

The key findings are as follows

1. From January to April 2024, there were 31,653 journeys with 1,118 cancellations. January had the highest journeys of 7,822 and February had the lowest 7,391 resulting in a -5.51% decrease overall.
2. The busiest travel periods are from 6 AM to 9 AM and 4 PM to 7 PM. The peak time slot is 6.30 AM and 6.45 PM, with the highest activity recorded at 1,337 and 2,300 journeys respectively.
3. 2/3 of passengers do not use a rail card. Among rail card holders, the Adult rail card type is the most popular, accounting for 16% of total passengers.
4. Standard class tickets make up 90% of sales, with Advance tickets being the most common type within this class.
5. Net revenue peaked at £199K in January, dropped by 20% to £159K in February, and recovered to £195K in March. The overall net revenue for the period is £703K and total refunds accounted to £39K.
6. On-time journeys contribute 81% of the net revenue totaling to £570K, while delayed and cancelled journeys contribute £101K and £33K, respectively.
7. Revenue from the sale of Advance tickets increased significantly in February by 40%, but overall monthly net revenue decreased by 20%. Advance ticket revenue is £294K, Anytime £200K, and Off-Peak £209K.
8. Shorter delays result in higher refund percentages, with delays <=1 minute having a 72% refund rate. Longer delays (>60 minutes) have significantly lower impacts, with 0% refunds.
9. The primary reasons for cancellations are signal weather, signal failure and staffing issues disruptions. These factors significantly impact service reliability and passenger satisfaction
10. Weather-related delays were the most common but had a 0% refund rate. Technical issues caused 319.