

Final Project Proposal – UK Train Dashboard

Project Description

The UK Train Dashboard project aims to analyze and visualize key performance metrics of train operations in the United Kingdom. The project provides interactive insights into train punctuality, delays, passenger volumes, and route efficiency. Using Power BI and data collected from open sources such as Kaggle, the dashboard helps decision-makers and commuters understand the overall performance and reliability of the UK railway system.

Group Members & Roles

Name	Role	Description
Faris sherif Taha	Team Leader & Power BI Developer	Manages the project, oversees progress, and designs the main Power BI dashboard.
Fahd sherif Taha	Data Engineer	Handles data collection, cleaning, and transformation using Python and SQL.
Amr Khaled Mahmoud	Data Analyst	Performs data analysis, identifies trends, and contributes to visualization logic.
Mahmoud Waheed Mahmoud	Business Analyst & Documentation Specialist	Defines project objectives and KPIs, prepares reports, and ensures alignment with goals.
Eman Abdallah Abdul Muttalib	Quality Assurance & Feedback Coordinator	Tests dashboard performance, gathers user feedback, and ensures usability and quality.

Team Leader

Faris sherif Taha Mahmoud

Objectives

- To analyze train punctuality and delay trends across different regions in the UK.
- To identify factors affecting train performance and passenger satisfaction.
- To visualize insights through an interactive and easy-to-use Power BI dashboard.
- To improve data-driven decision-making for transport management.
- To ensure the dashboard meets high usability and performance standards.

Tools & Technologies

Power BI, Excel, Python, SQL, Kaggle Dataset, DAX

Milestones & Deadlines

Milestone	Deadline
Data Collection	15/10/2025
Data Cleaning & Preparation	18/10/2025
Dashboard Design (Prototype)	25/10/2025
KPI Integration & Testing	30/10/2025
Final Report & Presentation	05/11/2025

Key Performance Indicators (KPIs)

KPI	Description
Data Quality Score (Accuracy & Completeness)	Percentage of missing or incorrect data after cleaning should be less than 5%.
Dashboard Performance (Load Time)	Dashboard load and refresh time should be under 5 seconds.
Interactivity & Usability Score	At least 80% positive feedback from users regarding clarity and ease of use.
Number of Key Insights Generated	Minimum of 5 meaningful insights supporting business and operational decisions.
Report Distribution & Access	Dashboard accessible to target users without technical issues.
Visualization Effectiveness (Readability Score)	High readability and adherence to visualization best practices.