

# Analysis Questions Document

**1) Total Rev (After Subtracting Refunded) = 703,219**

**2) Number of Journeys = 31653**

**3) Number of Cancelled Journeys = 1880**

**4) Number of Delayed Journeys = 2292**

**5) Reasons for Delay:**

<b>Reason_for_Delay</b>	<b>Times</b>
Weather Conditions	927
Technical Issue	472
Signal Failure	451
Staff Shortage	183
Staffing	172
Traffic	87

**6) Avg Ticket Price = 23.44**

**7) Purchase Type Revenue and Tickets Count:**

<b>Purchase_Type</b>	<b>Revenue</b>	<b>Tickets_Count</b>
Online	382754	18521
Station	359167	13132

**8) Ticket Type Revenue and Tickets Count:**

<b>Ticket_Type</b>	<b>Revenue</b>	<b>Tickets_Count</b>
Advance	309274	17561
Off-Peak	223338	8752
Anytime	209309	5340

**9) Ticket Class Revenue and Tickets Count:**

<b>Ticket_Class</b>	<b>Revenue</b>	<b>Tickets_Count</b>
Standard	592522	28595
First Class	149399	3058

**10) Avg Delayed Time = 42 mins**

### 11) Top 10 Stations with Highest Ticket Purchased Volume:

Departure_Station	Total_Tickets
Manchester Piccadilly	5650
London Euston	4954
Liverpool Lime Street	4561
London Paddington	4500
London Kings Cross	4229
London St Pancras	3891
Birmingham New Street	2136
York	927
Reading	594
Oxford	144

**12) Top 10 Stations with Most Delayed + Canceled Journeys:**

<b>Departure_Station</b>	<b>Disruptions</b>
Liverpool Lime Street	1134
Manchester Piccadilly	987
London Euston	515
London Paddington	423
London Kings Cross	339
London St Pancras	290
Birmingham New Street	268
York	115
Edinburgh Waverley	51
Reading	29

### 13) Top 10 Routes with Most Delayed:

Departure_Station	Arrival_Destination	Route_ID	Delayed
Liverpool Lime Street	London Euston	21	780
Manchester Piccadilly	Liverpool Lime Street	4	354
London Euston	Birmingham New Street	6	242
Manchester Piccadilly	London Euston	44	240
London Kings Cross	York	58	131
Liverpool Lime Street	Manchester Piccadilly	53	107
Birmingham New Street	Manchester Piccadilly	2	96
London Paddington	Reading	64	66
Manchester Piccadilly	Leeds	38	64
Edinburgh Waverley	London Kings Cross	50	51

### 14) Monthly Revenue:

Month	Year	Total_Revenue
December	2023	651
January	2024	193883
February	2024	146432
March	2024	184312
April	2024	177941

**15) No of Refund Request and Lost Rev:**

Refunded_Tickets	Lost_Rev
1118	38702

**16) Top 10 Routes with Highest Tickets:**

Departure_Station	Arrival_Destination	Route_ID	Tickets_Booked
Manchester Piccadilly	Liverpool Lime Street	4	4628
London Euston	Birmingham New Street	6	4209
London Kings Cross	York	58	3922
London Paddington	Reading	64	3873
London St Pancras	Birmingham New Street	7	3471
Liverpool Lime Street	Manchester Piccadilly	53	3002
Liverpool Lime Street	London Euston	21	1097
London Euston	Manchester Piccadilly	15	712
Birmingham New Street	London St Pancras	30	702
London Paddington	Oxford	28	485

**17) Top Reasons with Refund Request:**

<b>Reason_for_Delay</b>	<b>Refunded_Asked</b>
Technical Issue	388
Signal Failure	215
Staffing	182
Weather Conditions	133
Traffic	121
Staff Shortage	79

**18) Top Causes for Cancelled Trips:**

<b>Reason_for_Delay</b>	<b>Times</b>
Signal Failure	519
Weather Conditions	445
Staffing	238
Technical Issue	235
Traffic	227
Staff Shortage	216

**19) Months with Most Delayed and Cancelled Journeys:**

<b>Month_Name</b>	<b>Month_Number</b>	<b>Year_Number</b>	<b>Total_Disruptions</b>
March	3	2024	1137
January	1	2024	1034
April	4	2024	1008
February	2	2024	993

## 20) Top Stations with Cancelled Journeys:

Departure_Station	Disruptions
London Paddington	357
Manchester Piccadilly	315
London St Pancras	290
London Euston	256
Liverpool Lime Street	234
London Kings Cross	208
Birmingham New Street	128
York	57
Reading	29
Oxford	6

## 21) Top Stations with Delayed Journeys:

Departure_Station	Disruptions
Liverpool Lime Street	900
Manchester Piccadilly	672
London Euston	259
Birmingham New Street	140
London Kings Cross	131
London Paddington	66
York	58
Edinburgh Waverley	51
Oxford	15



## 22) Best Route Performance:

Departure_Station	Arrival_Destination	Route_ID	Delayed
London Kings Cross	Liverpool Lime Street	29	1
London St Pancras	Wolverhampton	9	1
York	Liverpool Lime Street	1	1
Liverpool Lime Street	Sheffield	61	1
Manchester Piccadilly	Sheffield	48	1
York	Birmingham New Street	20	2
London Paddington	Manchester Piccadilly	25	2
Liverpool Lime Street	Birmingham New Street	63	2
Birmingham New Street	Reading	65	3
Liverpool Lime Street	London St Pancras	39	3

**23) Top 10 Routes with Most Cancelled:**

<b>Departure_Station</b>	<b>Arrival_Destination</b>	<b>Route_ID</b>	<b>Delayed</b>
Manchester Piccadilly	Liverpool Lime Street	4	290
London Paddington	Reading	64	286
London St Pancras	Birmingham New Street	7	273
London Euston	Birmingham New Street	6	211
London Kings Cross	York	58	198
Liverpool Lime Street	Manchester Piccadilly	53	124
Liverpool Lime Street	London Euston	21	99
London Paddington	Oxford	28	63
Birmingham New Street	London St Pancras	30	51
London Euston	Manchester Piccadilly	15	45

**24) Top 10 Routes with Revenue:**

<b>Route_ID</b>	<b>Departure_Station</b>	<b>Arrival_Destination</b>	<b>Net_Revenue</b>
58	London Kings Cross	York	179498
21	Liverpool Lime Street	London Euston	100173
64	London Paddington	Reading	63841
15	London Euston	Manchester Piccadilly	59320
7	London St Pancras	Birmingham New Street	52038
6	London Euston	Birmingham New Street	49255
44	Manchester Piccadilly	London Euston	25136
30	Birmingham New Street	London St Pancras	18762
4	Manchester Piccadilly	Liverpool Lime Street	16976
5	Manchester Piccadilly	London Paddington	16090

**25) Top 10 Stations Rev 2024:**

<b>Departure_Station</b>	<b>Total_Revenue</b>
London Kings Cross	195770
Liverpool Lime Street	120687
London Euston	109267
London Paddington	82050
Manchester Piccadilly	65851
London St Pancras	61941
Birmingham New Street	35892
York	19188
Reading	9948
Oxford	2527

**26) April Avg Price = 24.13**

**27) April Total Journeys = 7781**

**28) April Delayed Journeys = 1008**