

Railway Analytics

Power BI Dashboard

Original Data

Source.Name	Transaction ID	Date of Purchase	Time of Purchase	Purchase Type	Payment Method	Railcard	Ticket Class	Ticket Type	Price
railway_2024-01.csv	7837fefa-5e1c-4a24-a6ac	1 de janeiro de 2024	20:22:05	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	452320e9-a181-4457-821d	2 de janeiro de 2024	20:18:10	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	93d61511-514a-4285-942f	2 de janeiro de 2024	20:20:20	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	f526d406-784e-49d0-8d75	2 de janeiro de 2024	20:21:59	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	776063a2-0b90-4dcd-bdff	3 de janeiro de 2024	20:19:31	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	618010b9-1aa5-4cbb-8cf3	3 de janeiro de 2024	20:20:58	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	9b54bfb2-bd79-465f-9efc	3 de janeiro de 2024	20:24:24	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	64dd55ad-a2b7-43df-845d	4 de janeiro de 2024	20:19:49	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	3ca247a8-1a9b-42ad-a6c5	4 de janeiro de 2024	20:21:02	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	a8b462e0-4b0c-4f55-896e	4 de janeiro de 2024	20:28:04	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	ee2e3691-130d-4ca7-b0d2	5 de janeiro de 2024	14:07:32	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	5b030cc9-125b-4d4c-8d50	5 de janeiro de 2024	20:16:55	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	49b9f00c-6d57-4a46-a153	5 de janeiro de 2024	20:25:01	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	0a171269-5e90-4981-bc85	5 de janeiro de 2024	20:25:53	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	c21f7974-54ab-4198-a59a	6 de janeiro de 2024	20:21:29	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	b5e16f73-bbf2-4042-a560	6 de janeiro de 2024	20:24:26	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	399d408b-f5d7-4232-9c8e	7 de janeiro de 2024	20:23:11	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	8ba00430-9266-46f3-a6be	7 de janeiro de 2024	20:26:33	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	a748e97e-dce1-41bc-821b	7 de janeiro de 2024	20:27:17	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	35cc4dad-3bb5-4a41-9882	8 de janeiro de 2024	20:19:29	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	1a2df67e-02b6-465a-a1e2	8 de janeiro de 2024	20:20:39	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	5e0fd123-e5a9-49b1-af75	8 de janeiro de 2024	20:28:45	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	a0fa8764-720c-406e-a1d4	8 de janeiro de 2024	20:28:45	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	e192bd2d-4b39-46ba-8677	9 de janeiro de 2024	20:20:03	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	9aa7bb2f-e4a2-46cc-8197	9 de janeiro de 2024	20:20:20	Online	Credit Card	No Railcard	Standard	Advance	
railway_2024-01.csv	c3979c95-1122-49b3-b032	9 de janeiro de 2024	20:20:51	Online	Credit Card	No Railcard	Standard	Advance	

Data division

Dados >

Procurar

- > DatasUnicas
- > Dim_Delays
- > Dim_Journey_Dates
- > Dim_Payment_Methods
- > Dim_Purchase
- > Dim_Railcards
- > Dim_Ticket_Types
- > Railway_Facts

Dim_Delays

Colunas

- **Reason_ID:** ID único do motivo do atraso
- **Reason_for_Delay:** Descrição do motivo do atraso (e.g., Falha técnica)
- **Refund_Policy:** Política de reembolso associada ao atraso

Novas métricas

- **Delay_Minutes**
- **Refund_Amount**
- **Refund_Granted** (para saber quanto é que a empresa efetivamente pagou em devoluções.)

Relacionamos com: Reason_for_Delay

Questões a responder

1. Qual é a percentagem de reembolsos concedidos nas viagens atrasadas?
2. Qual é o desempenho dentro do prazo? (percentagem de viagens dentro do prazo e percentagem de viagens atrasadas)
3. Quais são os principais fatores contribuintes para os atrasos?
4. Quais os custos com compensação de atrasos?
5. Quais são os horários com maior frequência de atrasos?

analisamos com:

- Departure time
- Arrival Time
- Actual Arrival Time
- Reasons for Delay
- Refund Request

Dim_Journey_Dates

Colunas

- **Date_ID:** ID único da data (formato YYYYMMDD)
- **Date:** Data completa
- **Year:** Ano
- **Month:** Mês
- **Day:** Dia
- **Day_of_Week:** Dia da semana (segunda, terça, etc.)
- **Is_Weekend:** Indicação se é fim de semana (Sim/Não)

Novas métricas

Relacionamos com: Date_of_Journey

Questões a responder

1. Quantas viagens foram feitas por mês/ano?
2. Existe mais procura durante fins de semana?
3. Quais são os horários de ponta das viagens?

analisamos com:

- Date of Journey
- Departure Time





Date

08-12-2023



30-04-2024



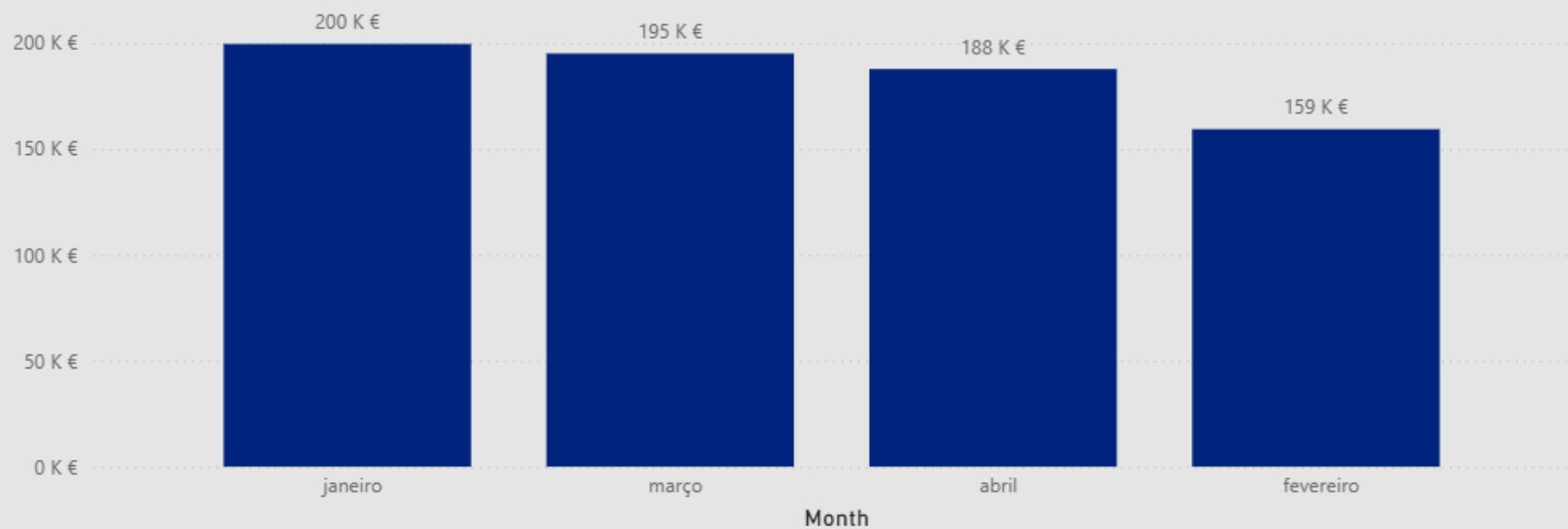
Total value of tickets sold

742 K

Total value of refunds granted

4,35 K

Total value for month



Revenues

Journeys

Purchases

Tickets

Delays

Details



TooltipRotas





Date

08-12-2023

30-04-2024



Ticket Class

First Class

Standard

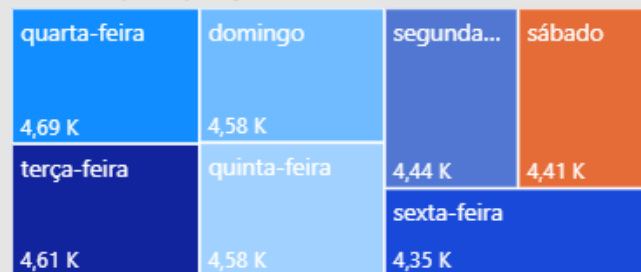
How many journeys were made?

31,653 K

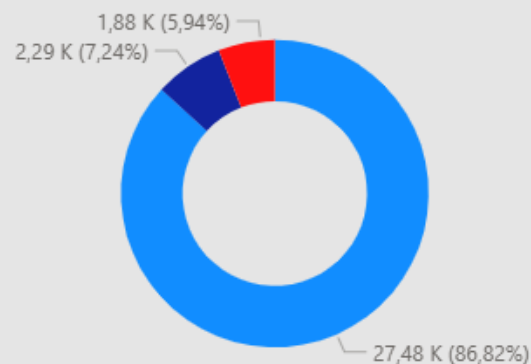
Which routes are the most popular?



What day do people travel the most?



Journey Status by Route



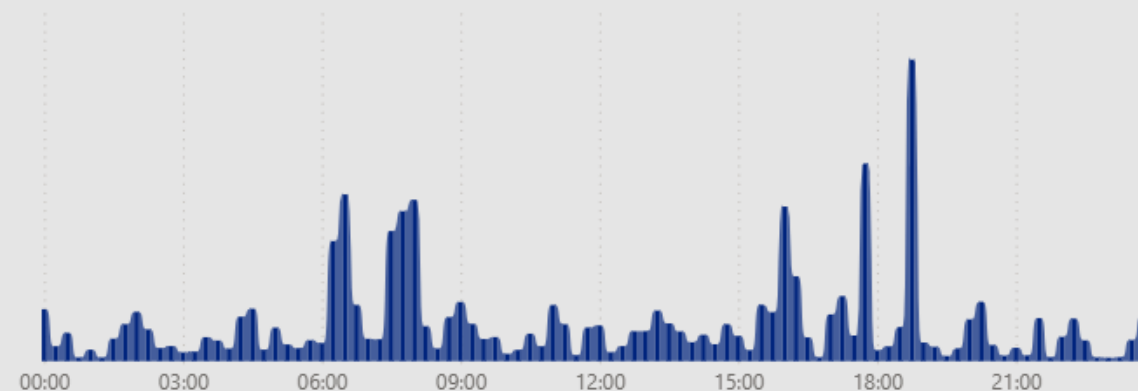
Journey Status

On Time

Delayed

Cancelled

What are the peak travel times?



Revenues

Journeys ^x

Purchases

Tickets

Delays

Details

TooltipRotas

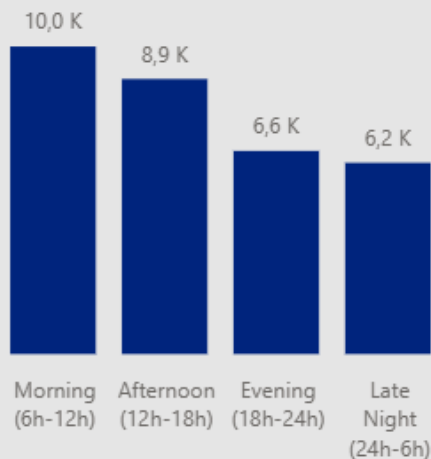




Which schedules are the most popular for shopping?

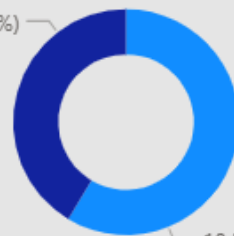
Online

Station



Where do people most often buy their tickets?

13,13 K (41,49%)



Purchase Type

Online

Station

What is the most common payment method?

Contagem d...

20.0K

Credit Card

Contactless

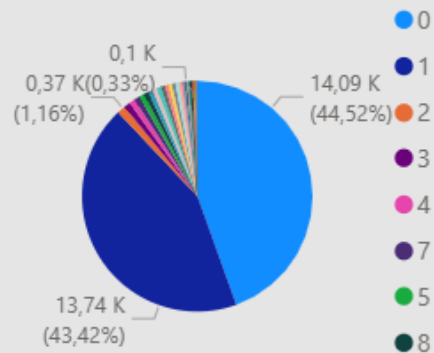
Debit Card

Payment Method



How many days in advance do people buy tickets?

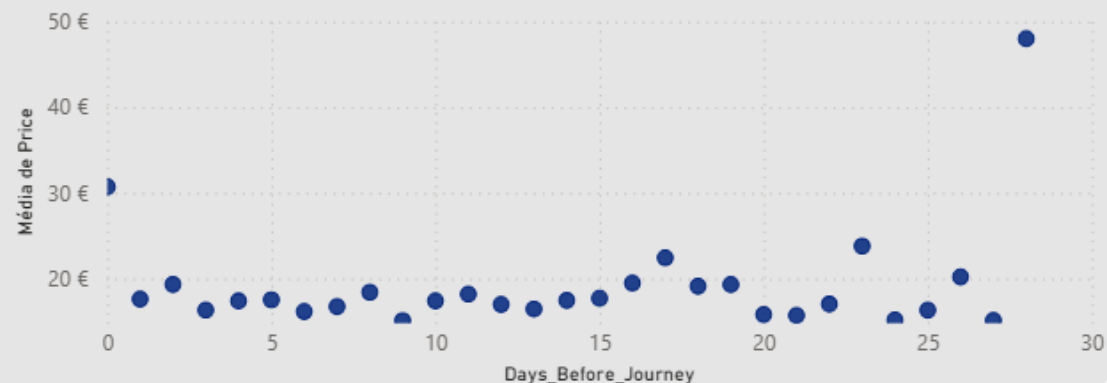
Days_Before_Jo...



Select a Route

Tudo

What is the financial impact on the average ticket price, depending on how many days in advance you buy?



Revenues

Journeys

Purchases ^x

Tickets

Delays

Details

TooltipRotas





Data

08-12-2023 30-04-2024

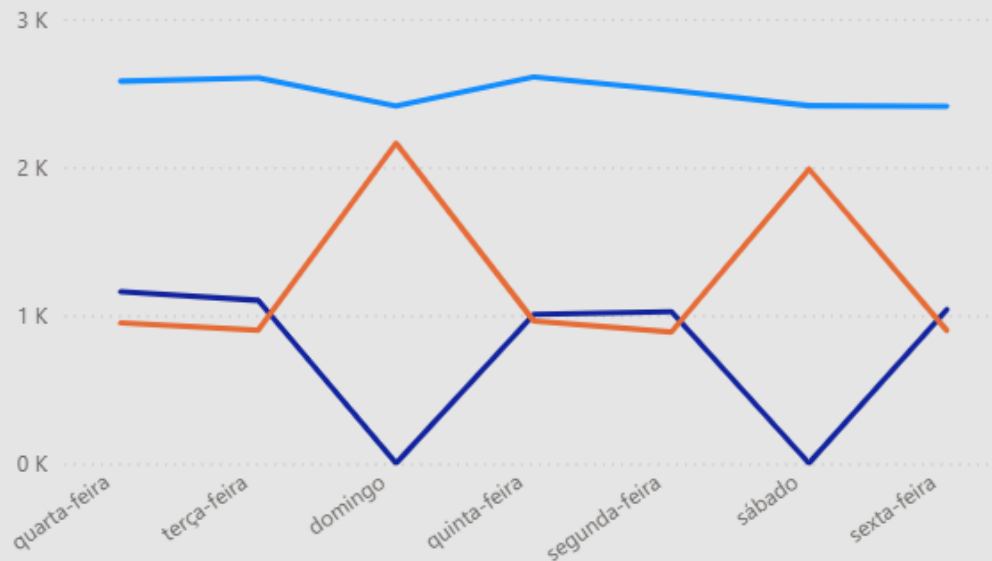
Ticket Class

First Class

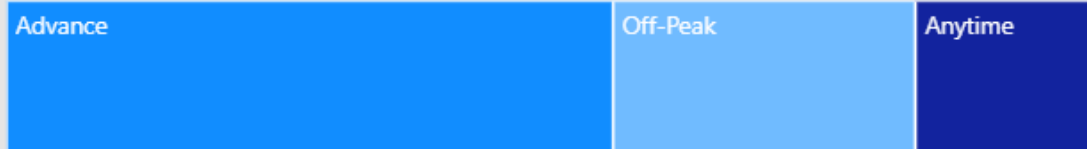
Standard

How does the number of tickets purchased vary across the days of the week for each ticket type?

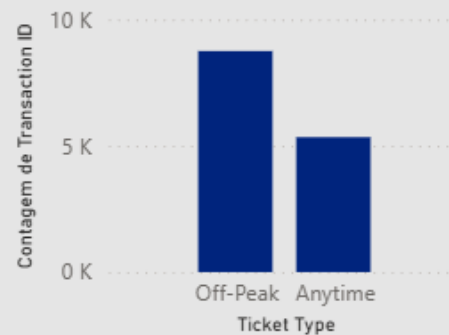
Ticket Type Advance Anytime Off-Peak



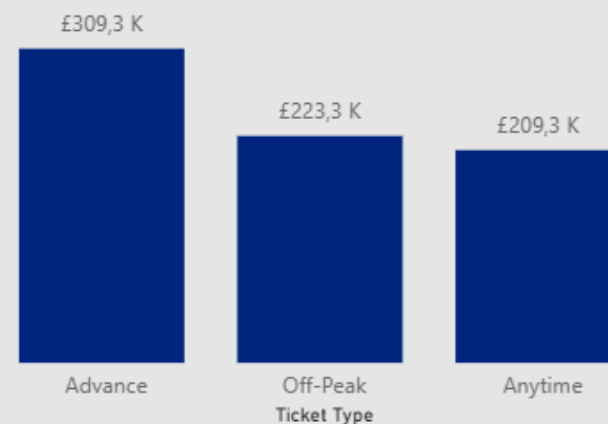
What is the distribution of tickets sold by ticket type?



What type of ticket is most commonly bought on the day of travel?



How does revenue vary according to ticket types and classes?



Revenues

Journeys

Purchases

Tickets

x

Delays

Details



TooltipRotas

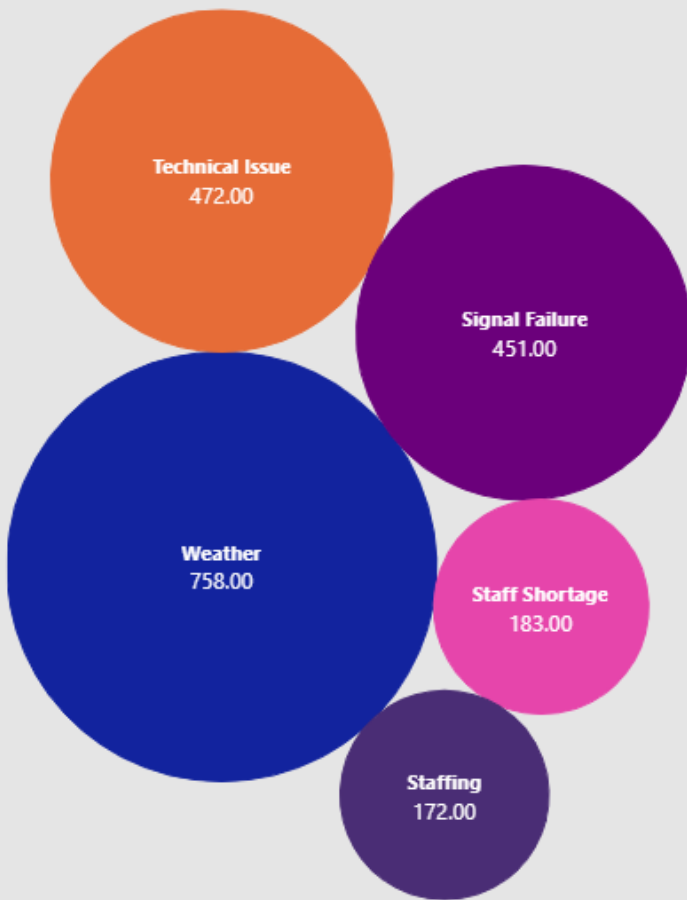




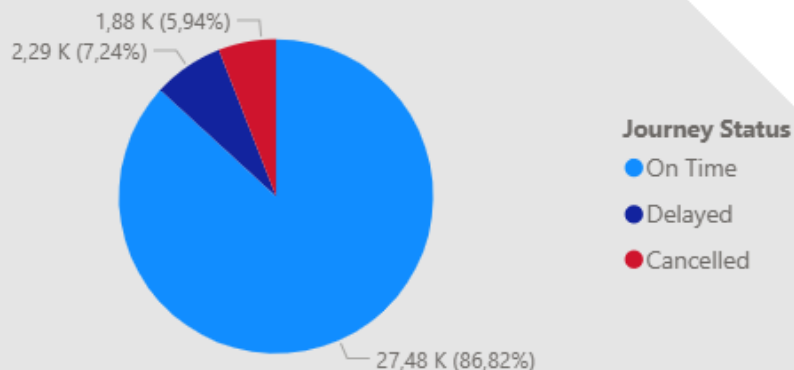
Data

08-12-2023 30-04-2024

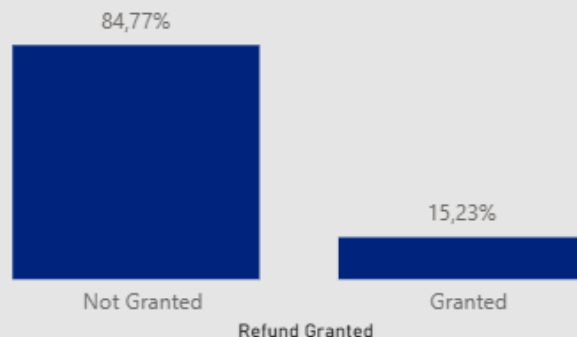
What are the main reasons for delays?



What is the performance status of the journeys?



How many of the delays have been refunded?



Which routes have the highest average delay in minutes?

Route	Média de Delay (minutes)
Manchester Piccadilly - Leeds	65,24
Liverpool Lime Street - London Euston	28,59
Manchester Piccadilly - London Euston	16,93
Manchester Piccadilly - Liverpool Lime Street	5,48
London Euston - Birmingham New Street	3,33



Revenues

Journeys

Purchases

Tickets

Delays ^x

Details

TooltipRotas

