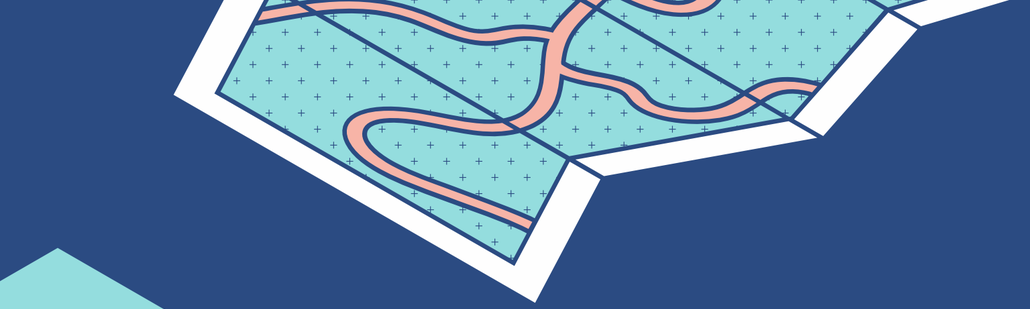
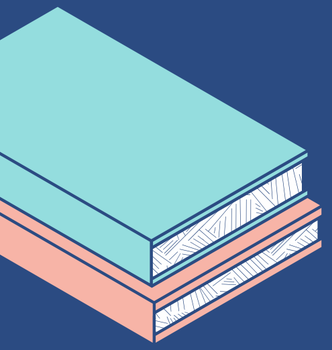
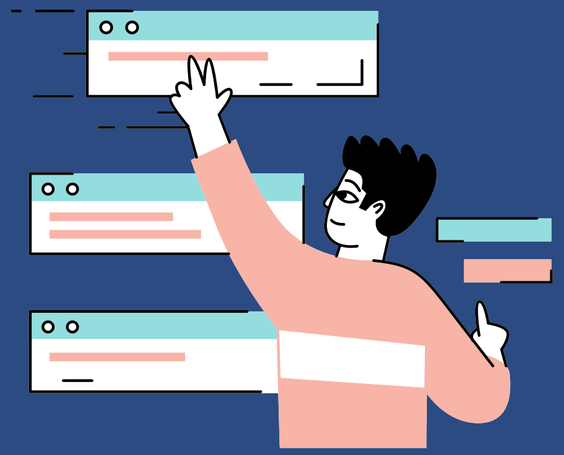


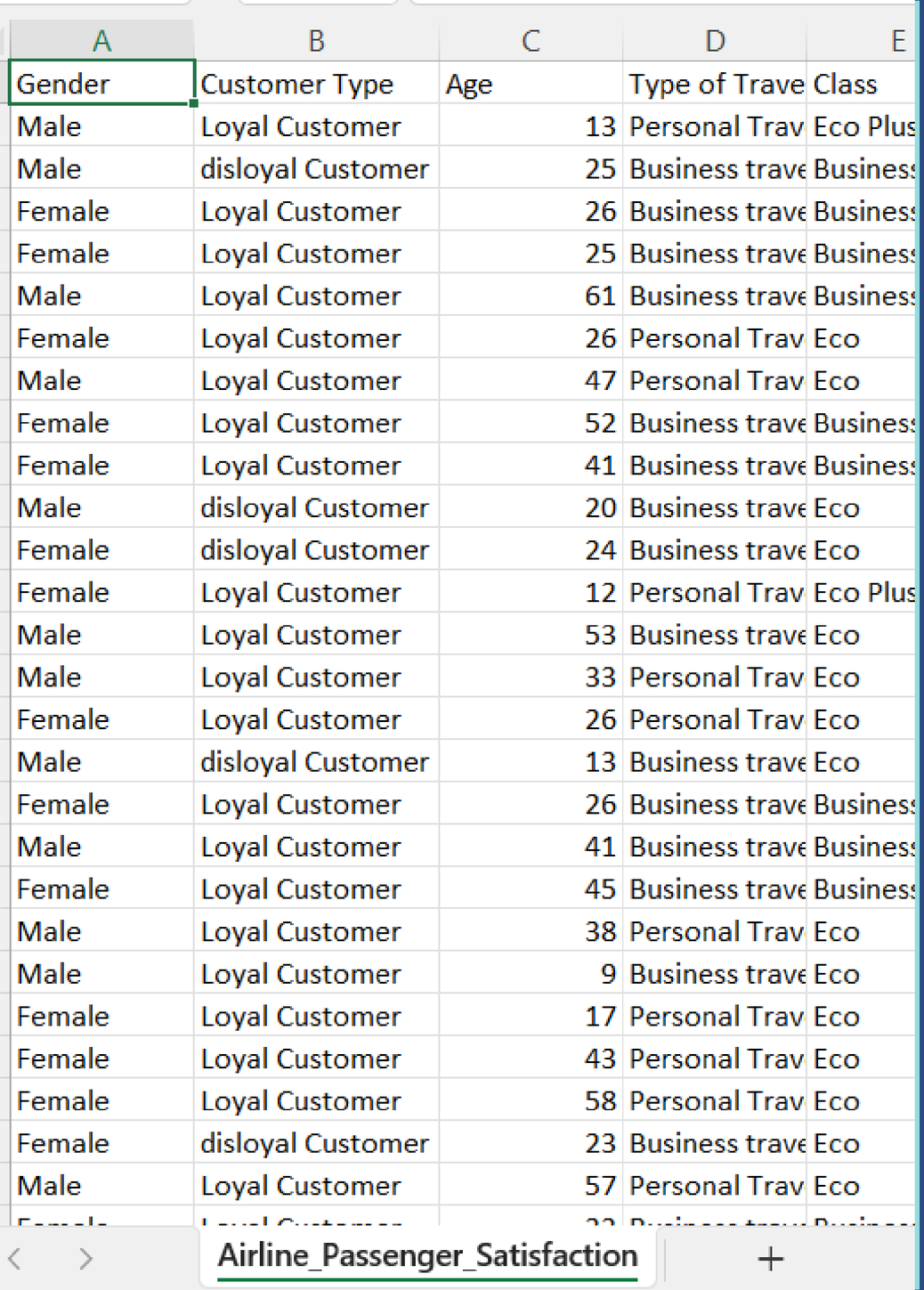




ANÁLISIS PREDICTIVO

TRATAMIENTO DE DATASET, ANÁLISIS Y GRÁFICOS

Sofía González del Solar



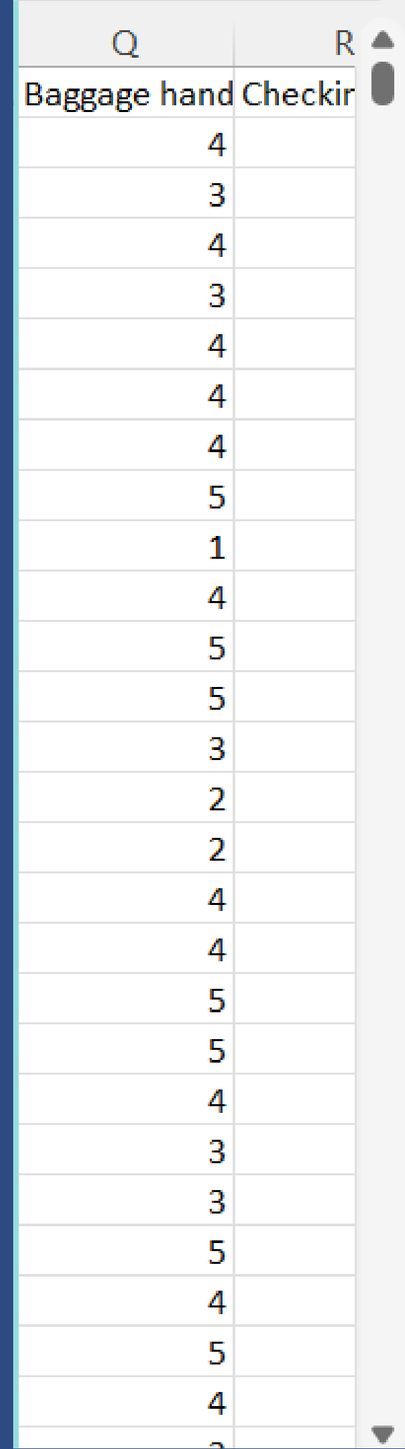
Gender	Customer Type	Age	Type of Trave	Class
Male	Loyal Customer	13	Personal Trav	Eco Plus
Male	disloyal Customer	25	Business trave	Business
Female	Loyal Customer	26	Business trave	Business
Female	Loyal Customer	25	Business trave	Business
Male	Loyal Customer	61	Business trave	Business
Female	Loyal Customer	26	Personal Trav	Eco
Male	Loyal Customer	47	Personal Trav	Eco
Female	Loyal Customer	52	Business trave	Business
Female	Loyal Customer	41	Business trave	Business
Male	disloyal Customer	20	Business trave	Eco
Female	disloyal Customer	24	Business trave	Eco
Female	Loyal Customer	12	Personal Trav	Eco Plus
Male	Loyal Customer	53	Business trave	Eco
Male	Loyal Customer	33	Personal Trav	Eco
Female	Loyal Customer	26	Personal Trav	Eco
Male	disloyal Customer	13	Business trave	Eco
Female	Loyal Customer	26	Business trave	Business
Male	Loyal Customer	41	Business trave	Business
Female	Loyal Customer	45	Business trave	Business
Male	Loyal Customer	38	Personal Trav	Eco
Male	Loyal Customer	9	Business trave	Eco
Female	Loyal Customer	17	Personal Trav	Eco
Female	Loyal Customer	43	Personal Trav	Eco
Female	Loyal Customer	58	Personal Trav	Eco
Female	disloyal Customer	23	Business trave	Eco
Male	Loyal Customer	57	Personal Trav	Eco

Airline_Passenger_Satisfaction

DATASET

AIRLINE_PASSENGER_SATISFACTION

- Cantidad de Variables Totales: 23
- Cantidad de variables numéricas: 4
- Cantidad de variables categoricas: 19
- Cantidad de Registros: 103.905
- Origen del Dataset: Kaggle
- Frecuencia de Actualización: nunca

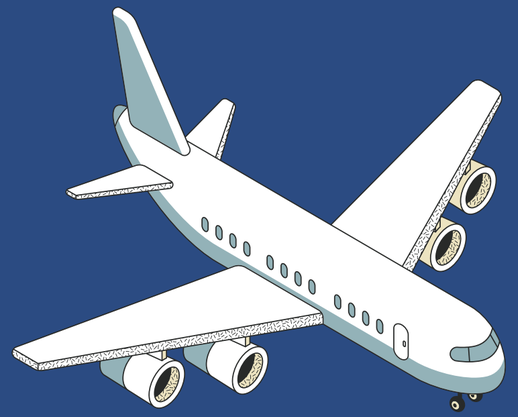


Baggage hand	Checkir
4	
3	
4	
3	
4	
4	
4	
5	
1	
4	
5	
5	
3	
2	
2	
4	
4	
5	
5	
4	
3	
3	
5	
4	
5	
4	

CASO DE NEGOCIO

Se busca predecir la variable categórica llamada satisfacción.

El objetivo es que las aerolíneas puedan predecir si el cliente quedó satisfecho o neutral/desatisfecho para así poder mejorar el servicio o remediar una mala experiencia del cliente.



ANÁLISIS DE MISSINGS

- Arrival Delay in Minutes: 310

Departure Delay in Minutes	Arrival Delay in Minutes	Atraso/Adelanto
25	18	7
1	6	-5
0	0	0
11	9	2
0	0	0
0	0	0
9	23	-14
4	0	4
0	0	0
0	0	0
0	0	0
0	0	0
28	8	20
0	0	0
43	35	8
1	0	1
49	51	-2
0	10	-10
7	5	2
17	18	-1
0	4	-4

Se agregó una variable

Promedio = -0.319

ANÁLISIS DE OUTLIERS

Flight Distance: 2.291

Departure Delay: 14.529

Arrival Delay: 13.954

Flight.Distance
4983
4983
4983
4983
4983
4983
4983
4983
4983
4983
4983
4983
4963
4963
4963
4963
4963
4963
4963

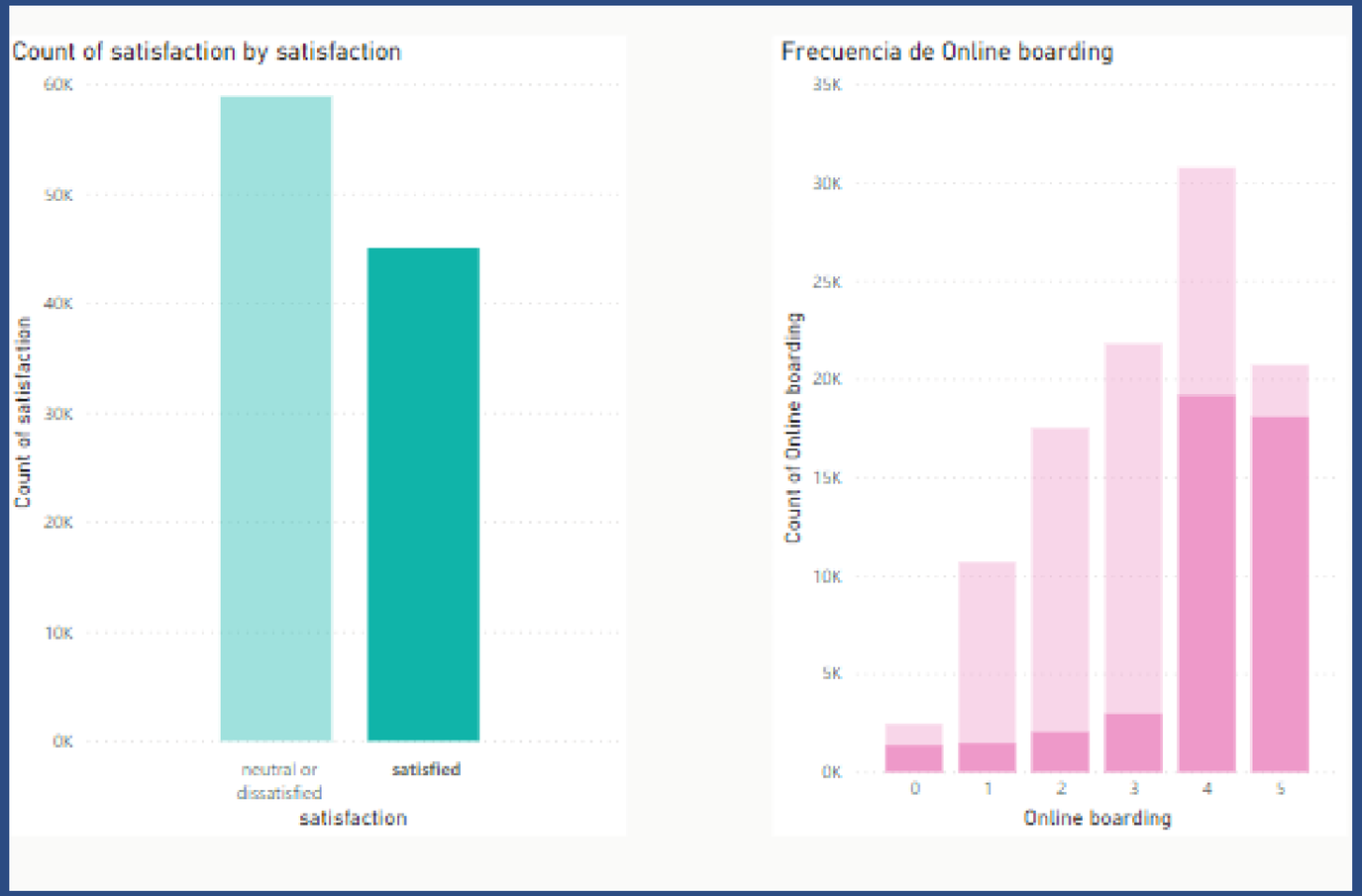
Departure.Delay.in.Minutes	Arrival.Delay.in.Minutes
1592	1584
1305	1280
1017	1011
978	970
933	920
930	952
921	924
859	860
853	823
750	729
748	720
729	717
726	691
724	705
692	702
652	638
626	604
610	593

VARIABLES CATEGÓRICAS

Dashboard Variables categóricas

Ease of Online Boarding y Satisfaction

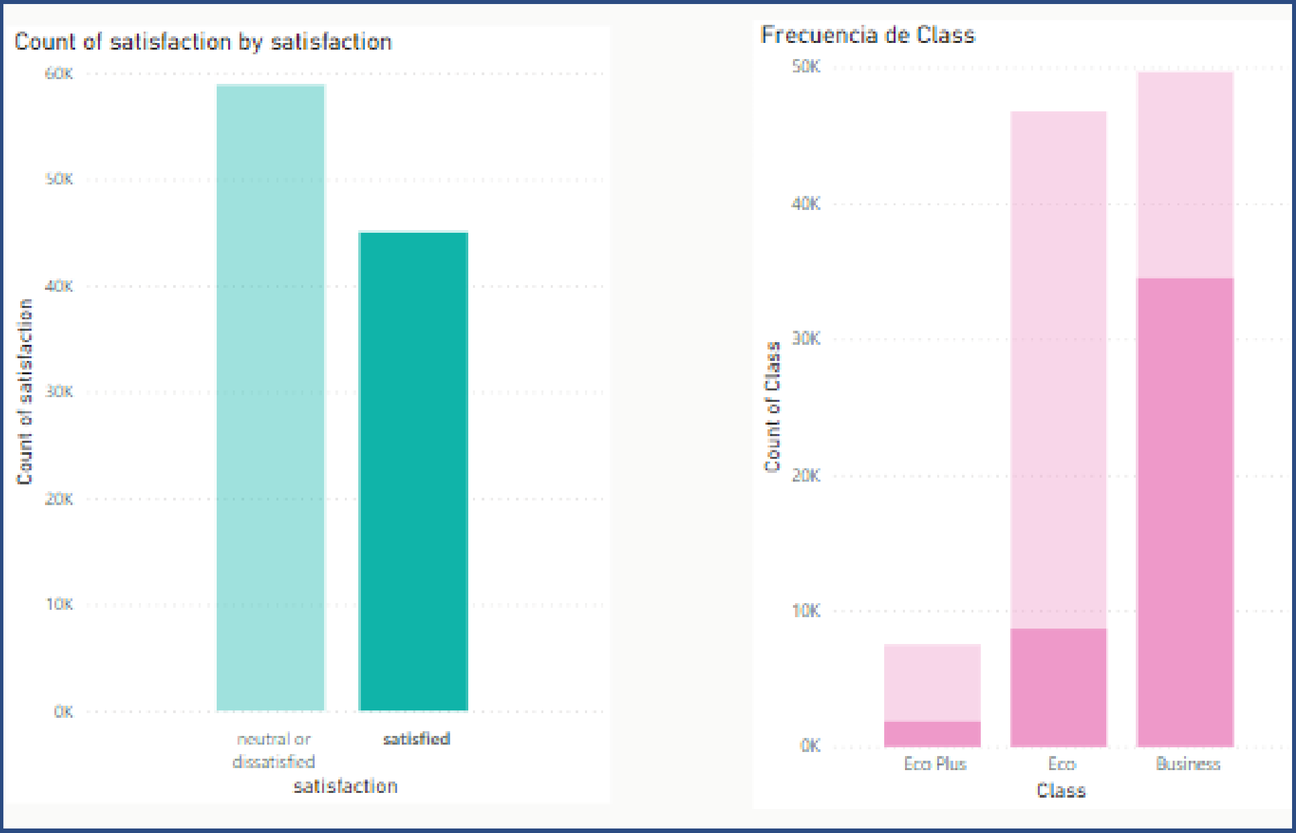
```
> correlacion4
[1] 0.6185259
```



Online boarding	neutral or dissatisfied	satisfied
0	1077	1351
1	9219	1473
2	15486	2019
3	18845	2959
4	11596	19166
5	2656	18057

Class y Satisfaction

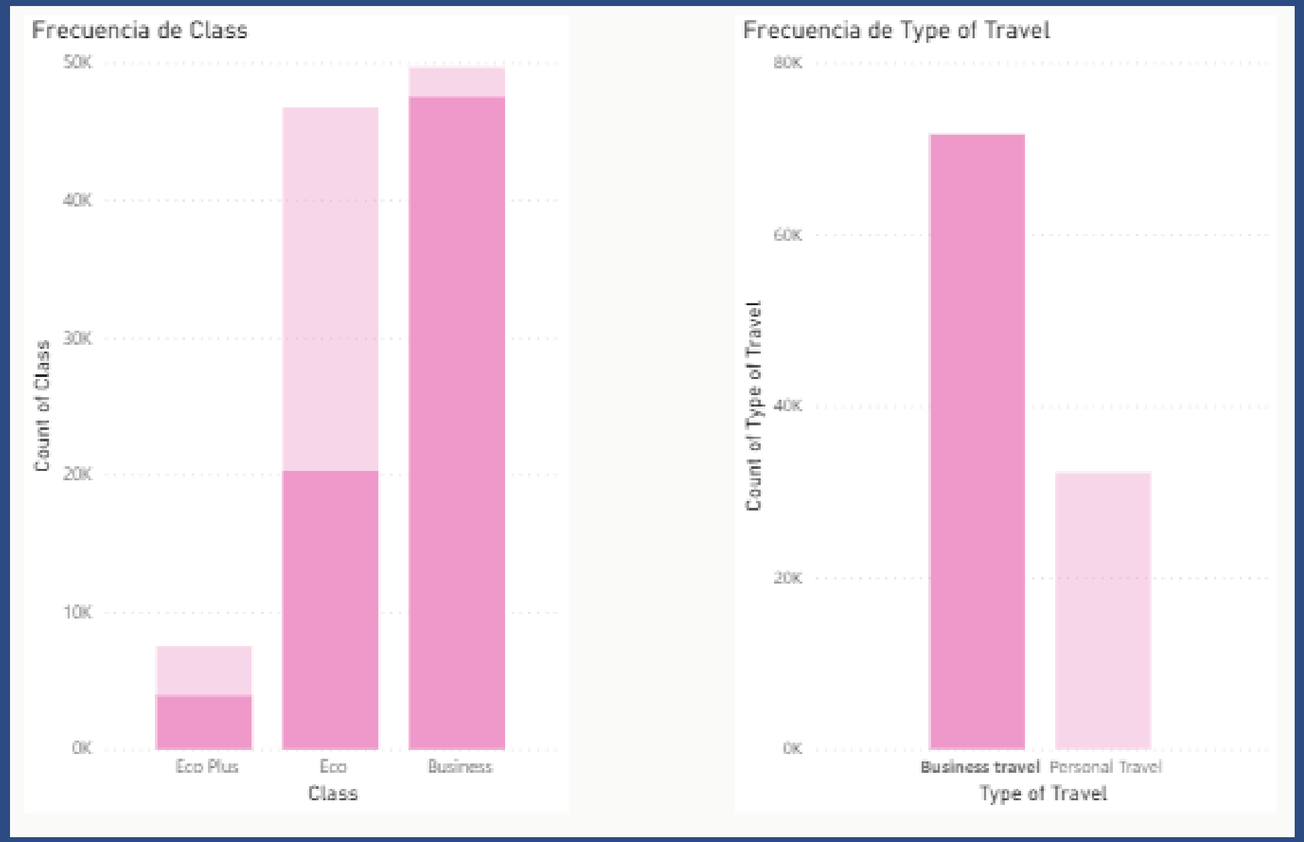
```
> correlacion5
[1] 0.5047498
```



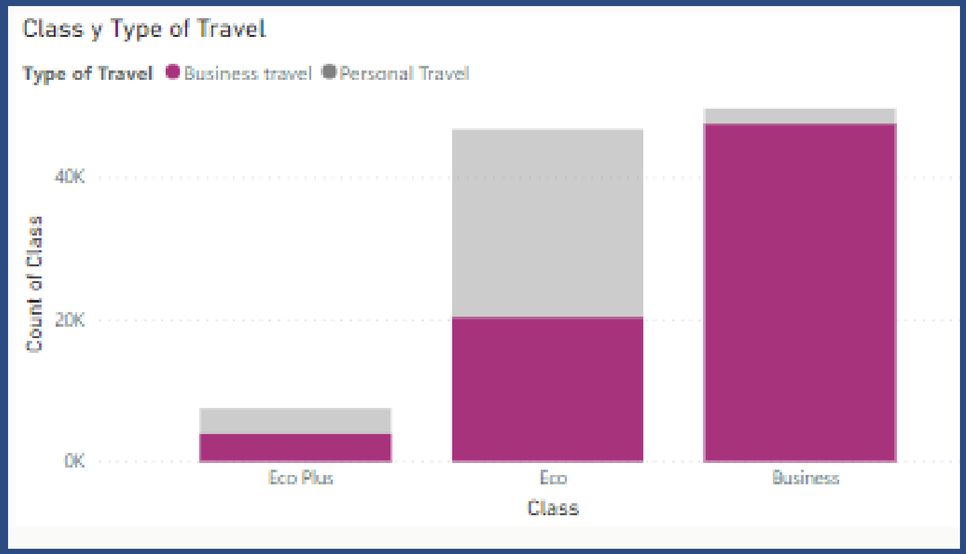
Class	neutral or dissatisfied	satisfied
Business	15185	34480
Eco	38044	8701
Eco Plus	5650	1844

Class y Type of Travel

```
> correlacion3
[1] 0.5540544
```



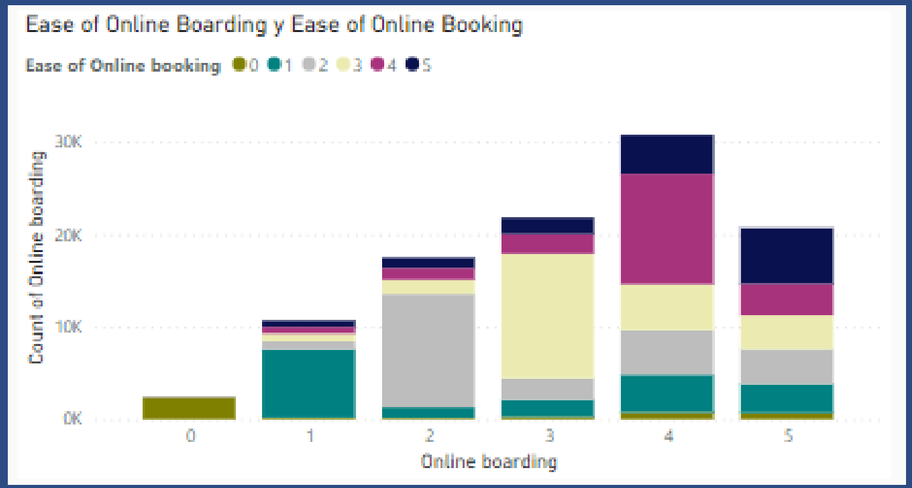
Class	Business travel	Personal Travel
Business	47508	2157
Eco	20257	26488
Eco Plus	3890	3604



Ease of Online Boarding y Ease of Online Booking

```
> correlacion6
[1] 0.4897872
```

Online boarding	0	1	2	3	4	5
0	2387		1			40
1	190	7361	870	864	739	668
2	162	1165	12230	1516	1305	1127
3	290	1843	2324	13424	2157	1766
4	760	4058	4823	4981	11915	4225
5	698	3098	3773	3664	3455	6025



VARIABLES NUMÉRICAS

Dashboard Variables Numéricas

Métricas

Departure Delay in Minutes

Mínimo	Máximo	Varianza	Mediana	Promedio
0	1592	1461.59	0	14.82

Arrival Delay in Minutes

Mínimo	Máximo	Varianza	Mediana	Promedio
0	1584	1497.57	0	15.18

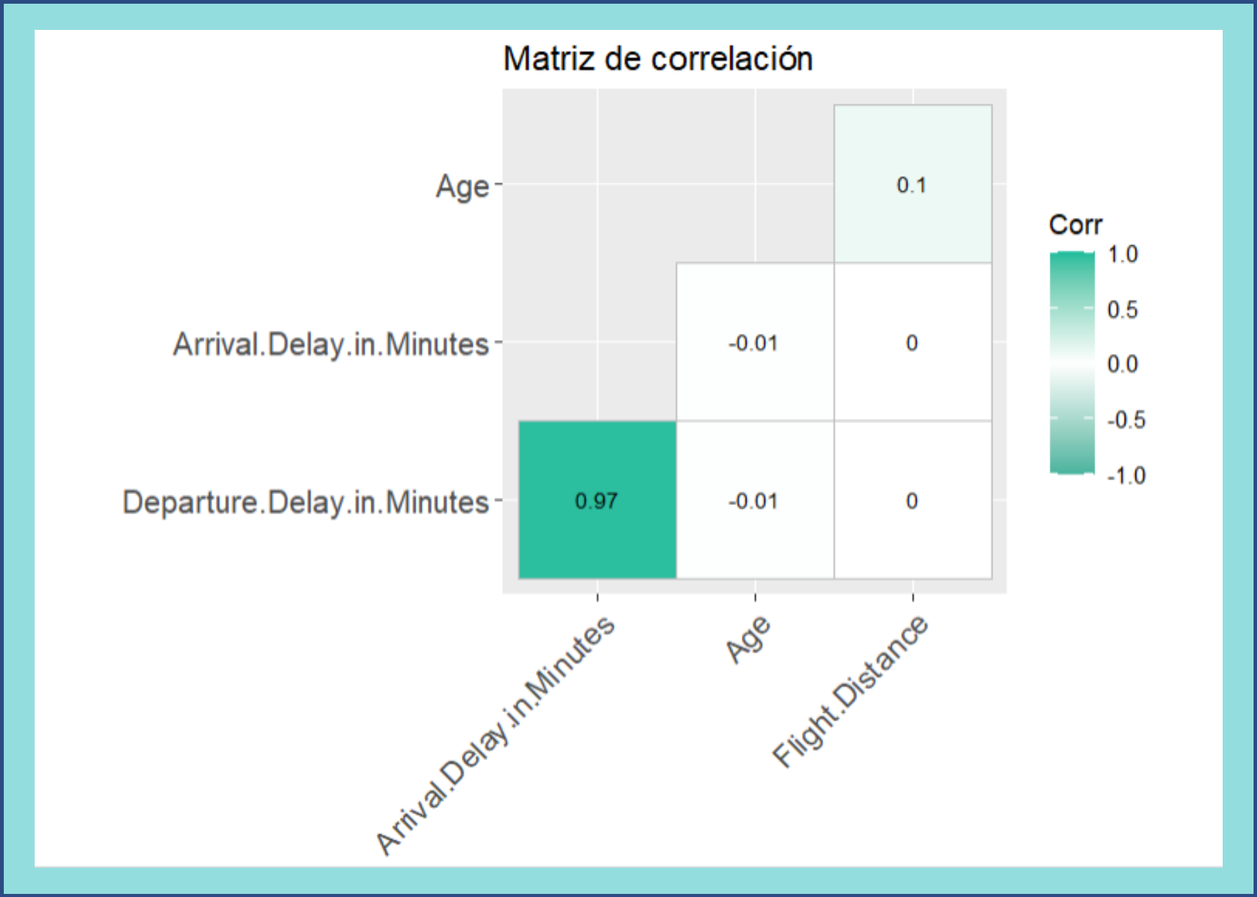
Age

Mínimo	Máximo	Varianza	Mediana	Promedio
7	85	228.46	40	39.38

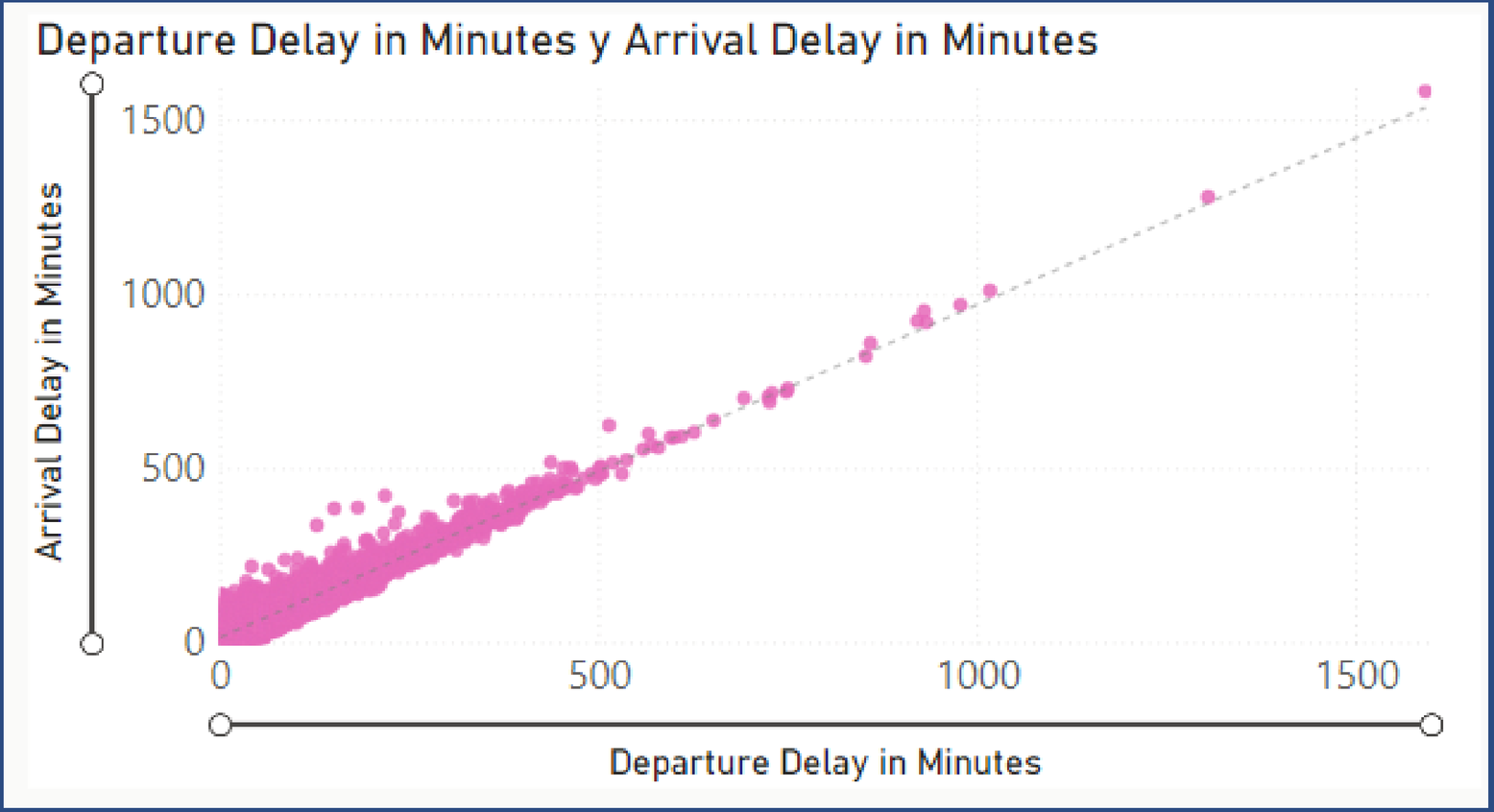
Flight Distance

Mínimo	Máximo	Varianza	Mediana	Promedio
31	4983	994293.13	843	1189.45

Matriz de correlaciones



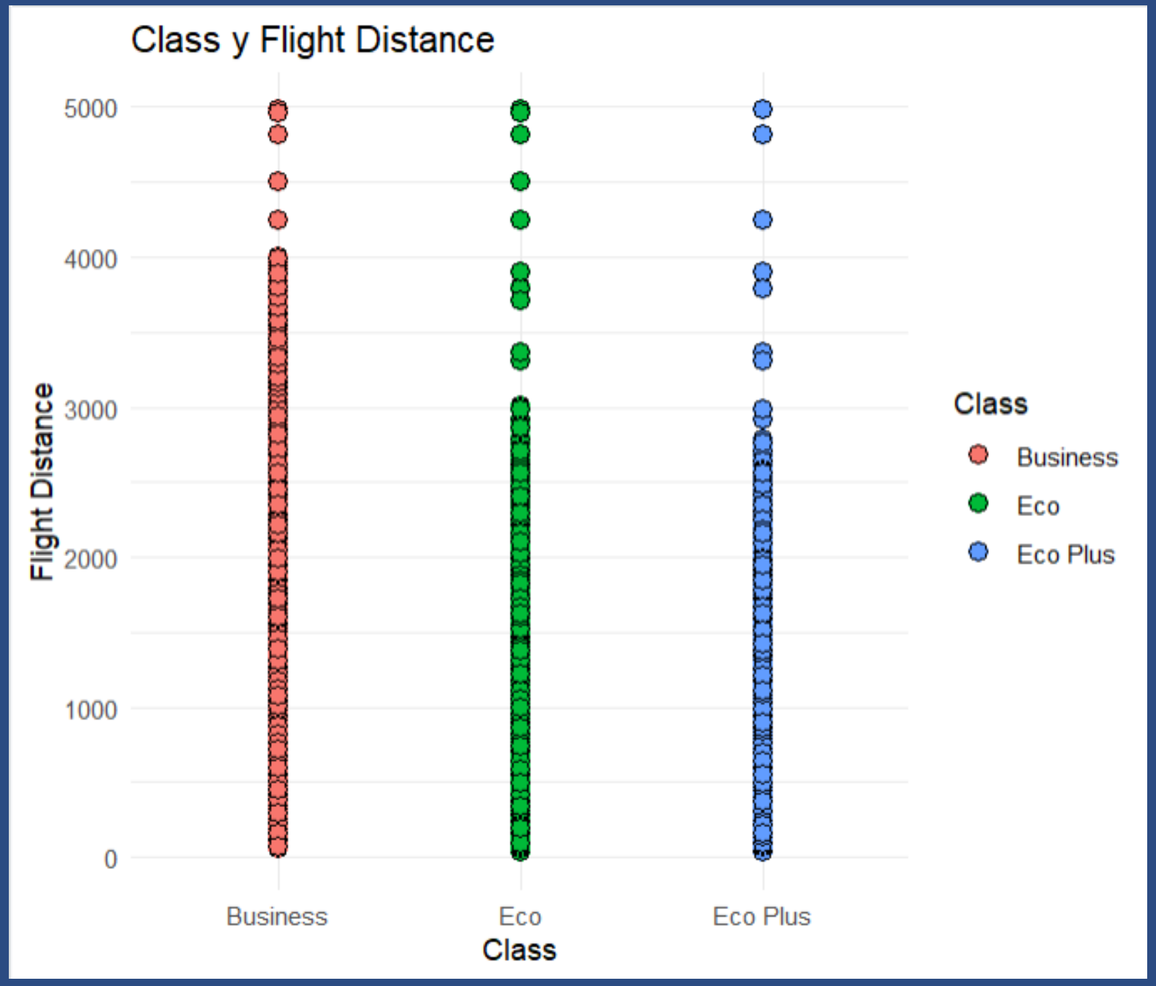
Departure Delay in Minutes y Arrival Delay in Minutes



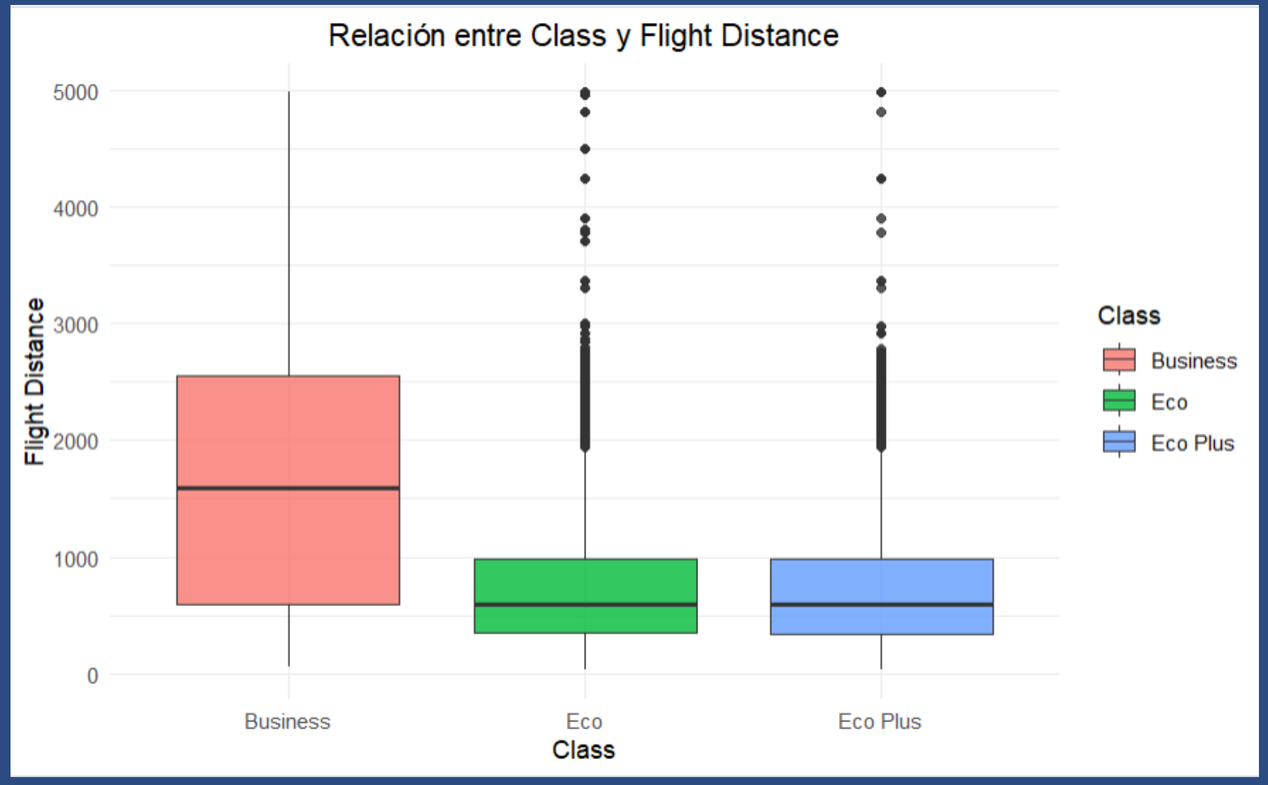

```
> correlacion
[1] 0.9654809
```

VARIABLES NUMÉRICAS Y CATEGÓRICAS

Flight distance y Class




```
Kruskal-Wallis chi-squared
                    0.1707619
```



Conclusiones

Profesores;

- Esequiel Martín Eliano Sombory
- Leonardo Andrés Caravaggio
- Francisco Valentini

1er cuatrimestre - 2023

Primer Examen

Sofía Gonzalez del Solar