Navigating Travel Expertise

Turning Data into Dream Destinations

Presented by

Passport Paradise Travel Agency

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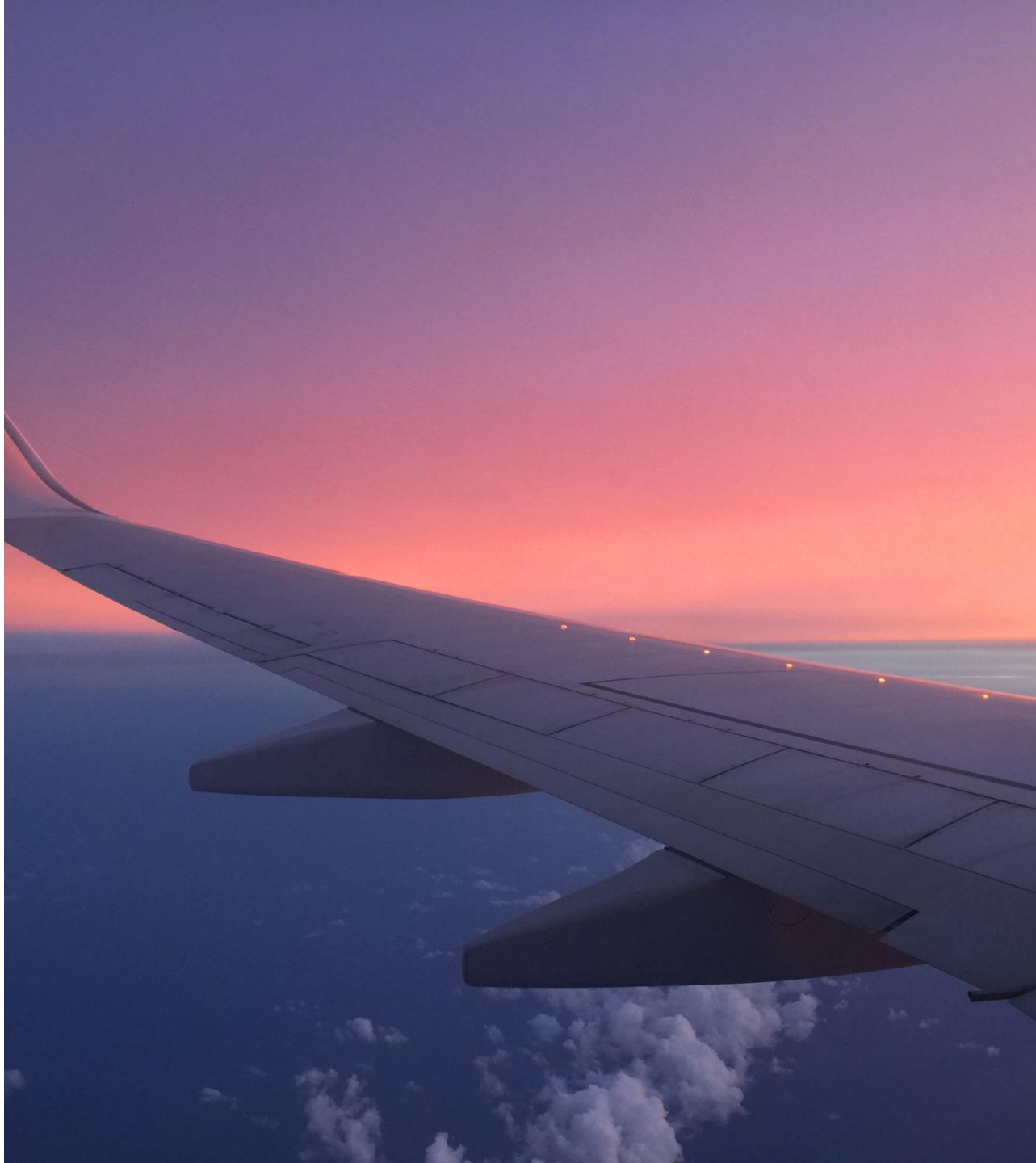


Meet the team

Alizabeth Recker- Senior in Accounting

Haylee Hidlebaugh - Senior in Accounting

Kairavi Dave - Senior in MIS

Abigail Cobb – Senior in Accounting & Business Analytics

Isabelle Staudt- Senior in Business Analytics & Actuarial Science

About our Company

A travel agency that strives to create your dream vacation

Suggest travel strategies

Competitive trend analysis

Effective cost management and customer support

Keys to Success

Data-Driven Insight

identify trends in traveler preferences, experiences, and reviews, providing actionable insights

Target Market

personalized marketing campaigns that resonate with travelers' specific interests and destination preferences

Predictive Analytics

forecast emerging travel trends and preferences, enabling businesses to stay ahead of the curve

Mapping Journeys with Data

Kaggle Travel Dataset - Datathon 2019

Size : 7GB
Usability : 10.00

Flights Dataset *:* Information on routes, travel costs, and agencies.

Users Dataset : Demographics and booking behaviors.

Hotels Dataset : Data on prices, locations, and duration of stays.

Trusted Tools

AZURE SYNAPSE ENGINEERING

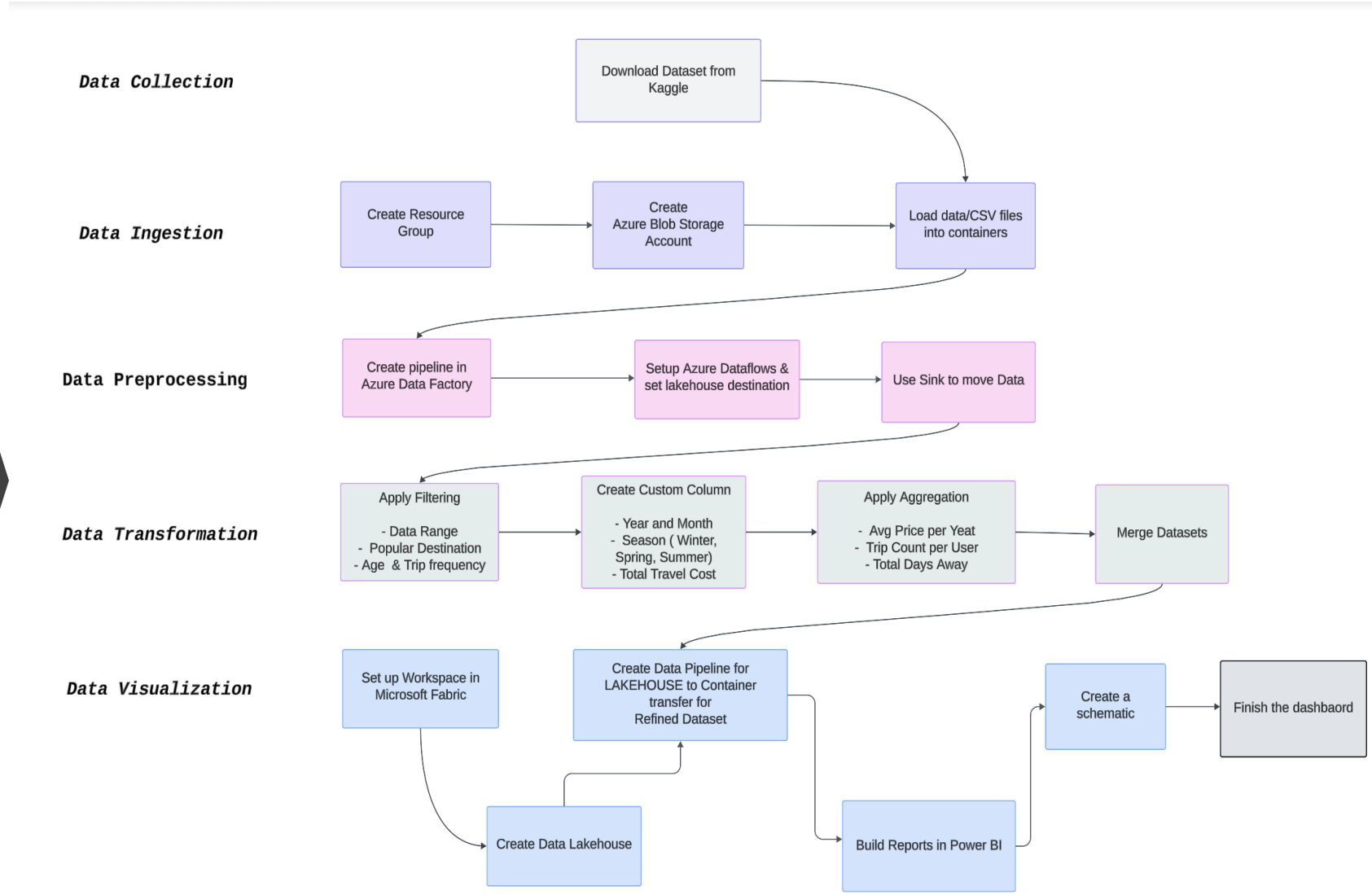
AZURE DATA LAKEHOUSE

AZURE BLOB STORAGE

AZURE DATA FACTORY

POWER BI

Data Processing Schema



Analytics Used

Descriptive Analytics: This looks at booking patterns, customer types, and travel choices. By making reports and charts, we can see what customers like and popular places, helping us improve marketing and operations.

Diagnostics Analytics: By finding patterns, we can understand what affects customer satisfaction, the success of marketing, and changes in travel preferences. This helps us make better decisions and improve services for a better customer experience.

Predictive Analytics: This predicts travel trends, peak demand times, and possible issues. It helps us make smart choices about marketing, pricing, and resources, keeping us competitive in a changing market.

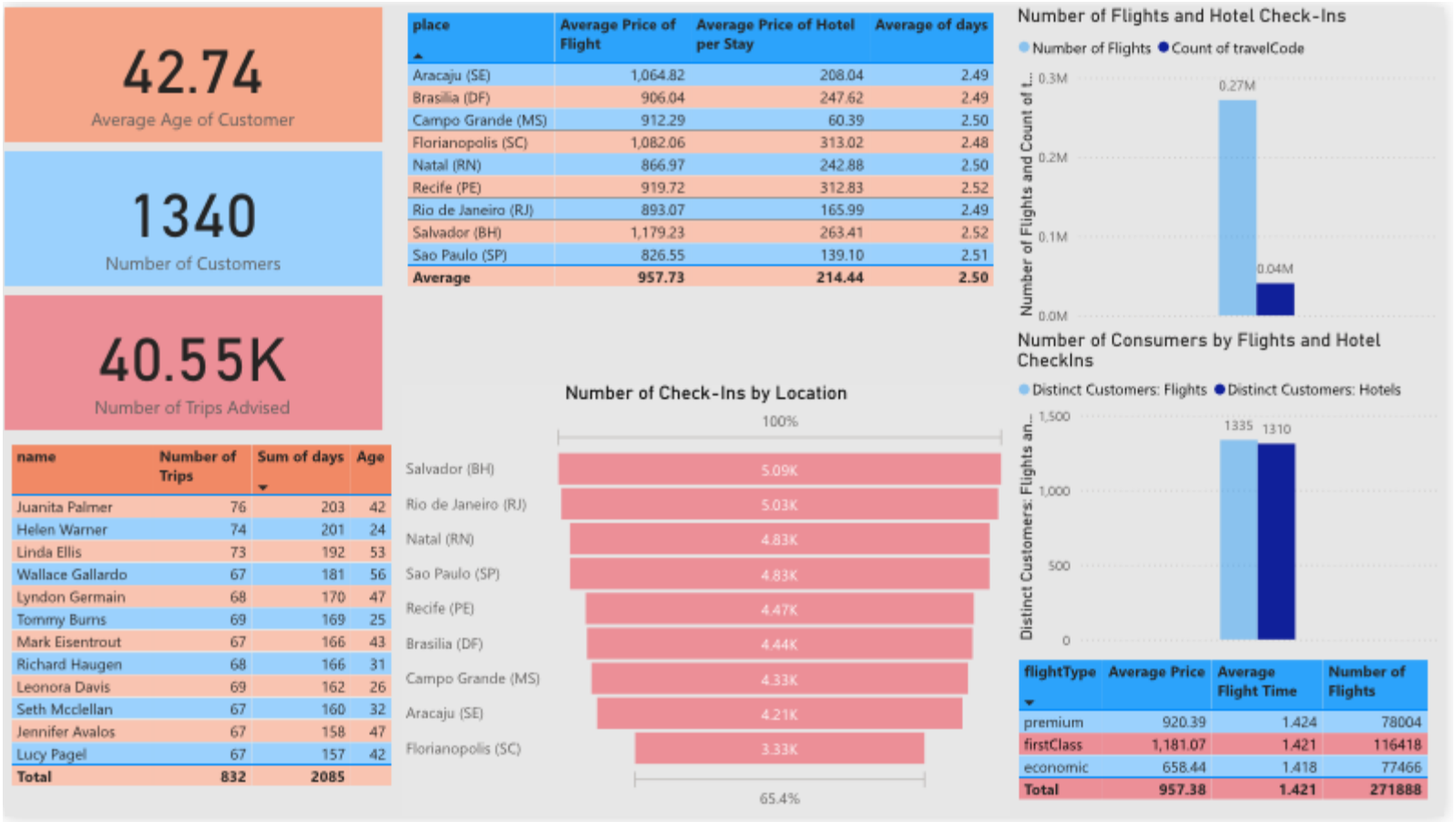
Prescriptive Analytics: This involves adjusting prices for flights and hotels based on current demand and customer behavior. It also includes creating personalized marketing campaigns to attract specific customer groups.

Assumptions

Simple random Sample	random sample of consumers, hotels, or flights
Stationarity (for Time-series data)	Assumes that patterns were stable
Variance-Independent	each element in datasets like this is independent of the others

Overview of pattern and trends

Data Visuals

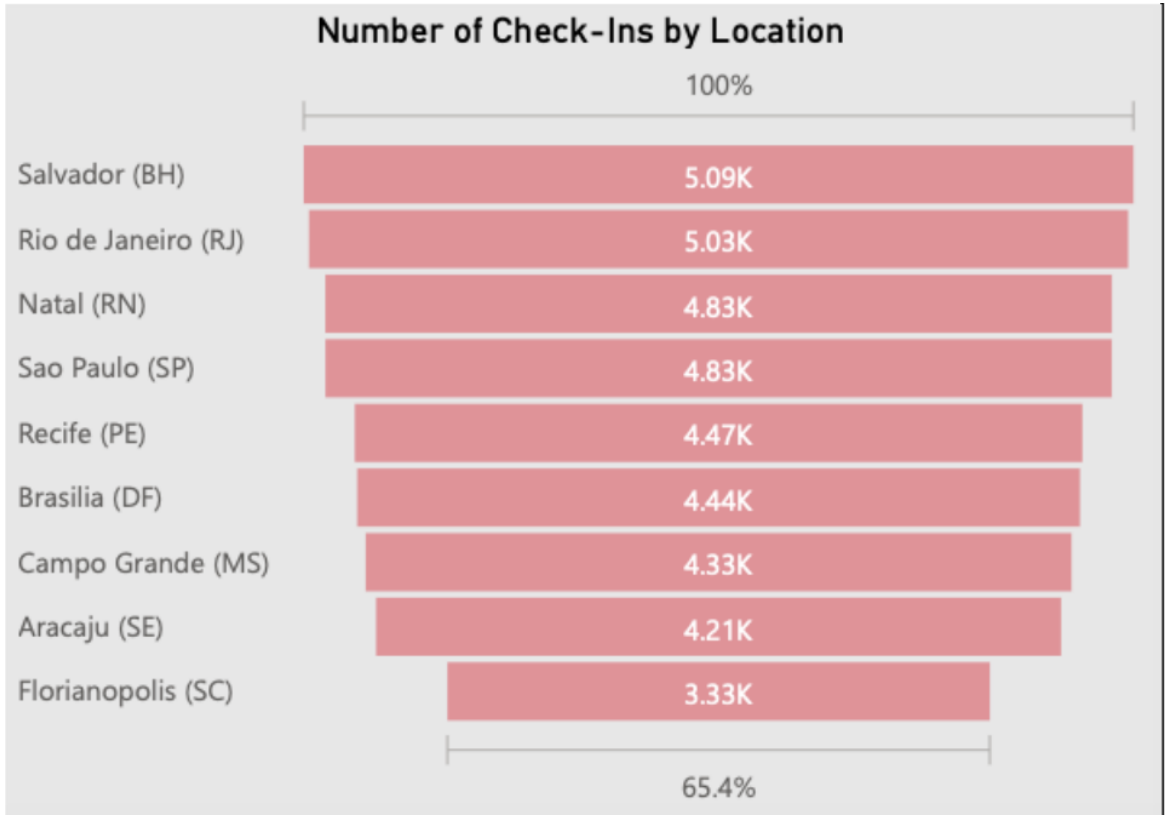


place	Average Price of Flight	Average Price of Hotel per Stay	Average of days
Aracaju (SE)	1,064.82	208.04	2.49
Brasilia (DF)	906.04	247.62	2.49
Campo Grande (MS)	912.29	60.39	2.50
Florianopolis (SC)	1,082.06	313.02	2.48
Natal (RN)	866.97	242.88	2.50
Recife (PE)	919.72	312.83	2.52
Rio de Janeiro (RJ)	893.07	165.99	2.49
Salvador (BH)	1,179.23	263.41	2.52
Sao Paulo (SP)	826.55	139.10	2.51
Average	**957.73**	**214.44**	**2.50**

name	Number of Trips	Sum of days	Age
Juanita Palmer	76	203	42
Helen Warner	74	201	24
Linda Ellis	73	192	53
Wallace Gallardo	67	181	56
Lyndon Germain	68	170	47
Tommy Burns	69	169	25
Mark Eisentrout	67	166	43
Richard Haugen	68	166	31
Leonora Davis	69	162	26
Seth Mcclellan	67	160	32
Jennifer Avalos	67	158	47
Lucy Pagel	67	157	42
Total	**832**	**2085**	

flightType	Average Price	Average Flight Time	Number of Flights
premium	920.39	1.424	78004
firstClass	1,181.07	1.421	116418
economic	658.44	1.418	77466
Total	**957.38**	**1.421**	**271888**

Data Visuals: Locations



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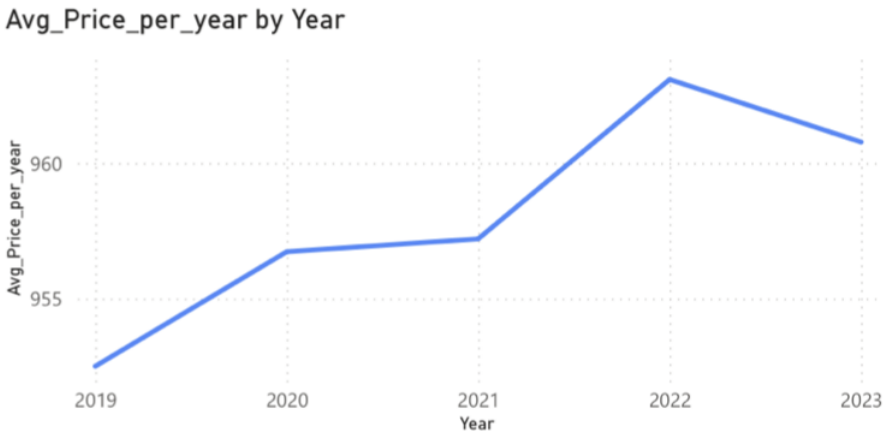
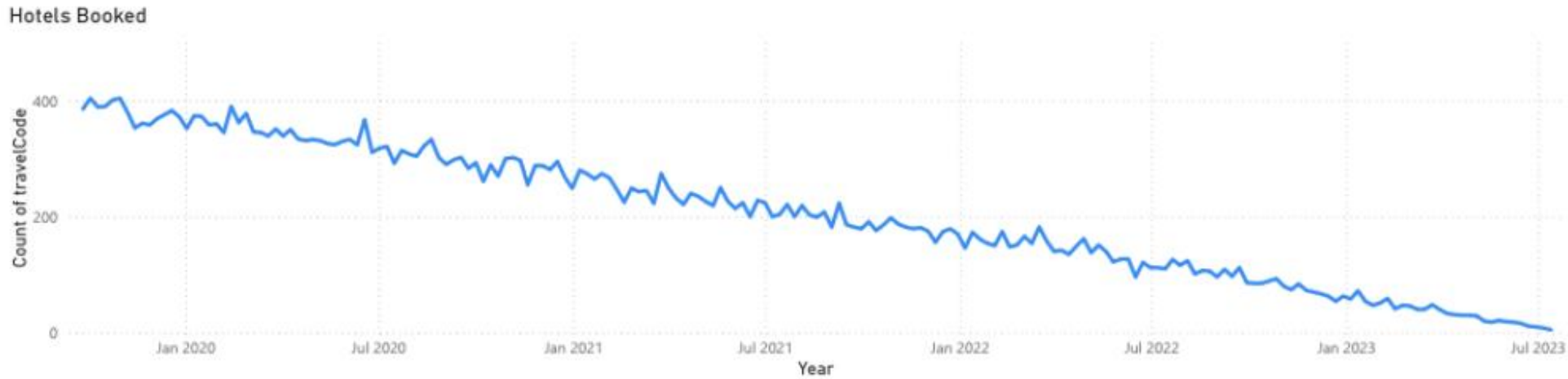
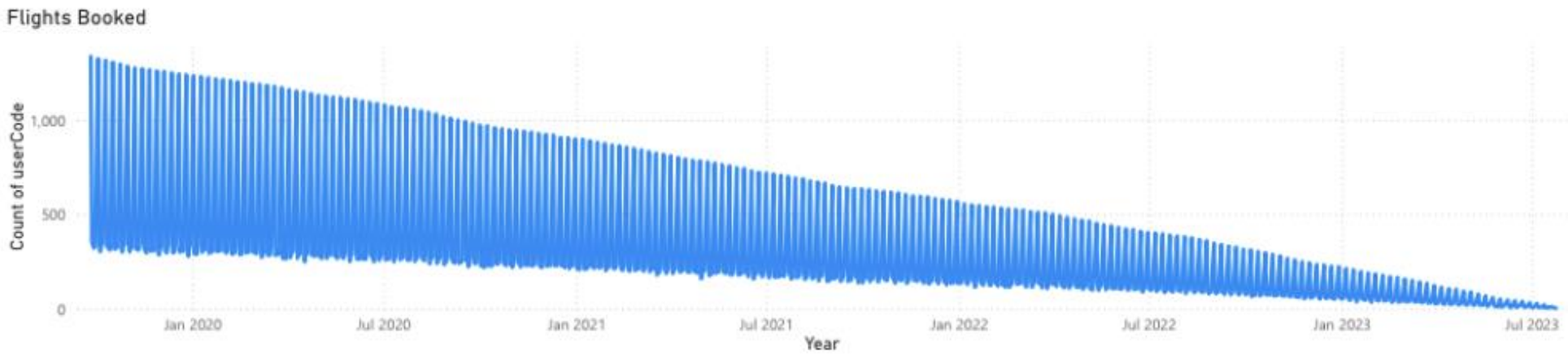


Year	Avg_Price_per_year
2019	952.50
2020	956.73
2021	957.20
2022	963.09
2023	960.78

Data Visuals: Trends





Recommendations

Purpose

- Consumers primarily use the company to book flights
- Reduce focus on hotel bookings
- Flight bookings are main source of business, emphasize business strategy on flights

Location

- Prioritize flights to locations with high hotel check-in rates
- Increase marketing to less popular locations

Recommendations

Time Trends
- Accommodate high demand over weekends
- Focus on marketing for low demand times (lower costs for weekdays to push flight sales)

Customer Loyalty
- Customers will make repeated bookings
- Prioritize customer loyalty program
- Encourage off-season bookings

Customer Demographics
- Average age 43
- Prioritize this group
- Build younger customer base

Challenges

If any of ran out of azure credits

How long the visuals took

Having multiple different spreadsheets of data (flights, hotels, users)

Finding data sets with enough information

We noticed it didn’t account for seasonality