Project Title: Analysing the Performance & Efficiency of The Radisson Hotels using Data Visualization Techniques

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Team Id: LTVIP2023TMID08132 **Team size:**04

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Gurrala Sunitha

Eedara Keerthana Lakshmi

Data Analytics:

Data analytics is a multidisciplinary field that employs a wide range of analysis techniques, including math, statistics, and computer science, to draw insights from data sets. Data analytics is a broad term

that includes everything from simply analysing data to theorizing ways of collecting data and creating the frameworks needed to store it.

Data Analyst?

Data analyst is a broad term for someone paid to analyse data and create insights that viewers can act on. Skilled data analysts are some of the most sought-after professionals in the world.

Because demand is strong and the supply of people who can do this job well is limited, data analysts command higher-than-average salaries and perks, even at the entry level.

Data analyst jobs can be found throughout a diverse mix of companies and industries. Some top jobs in data analysis involve using data to make investment decisions, target customers, assess risks, or decide on capital allocations.

Business Requirements of Student performance Analysis:

Business requirement of student performance analysis refers to the need of educational institutions or organizations to gather, analyse, and use data on students' academic performance to improve teaching and learning outcomes. This process involves collecting, analysing, and interpreting data on various aspects of student performance such as test scores, attendance, behavioural patterns, and demographic information. The business requirement of student performance analysis is crucial for educational institutions to provide high-quality teaching and learning outcomes and improve student success. The ultimate goal is to gain insights and improve performance through data visualization techniques.

Literature Survey:

A literature survey for Student Performance Analysis involves reviewing academic articles, and other sources related to the analytics of Students Performance. Researchers and practitioners in the field are exploring new methods and tools to improve teaching and learning outcomes and provide more personalized learning experiences for individual students. The analysis can provide a comprehensive understanding of the significance, challenges, and opportunities associated with Student Performance.

Social Or Business Impact:

Social Impact: It have a positive social impact by improving student outcomes, promoting equity in education, and increasing transparency and accountability in the education system.

Business Model/Impact: It have a significant impact on businesses and educational institutions, as it provides valuable insights into student learning and helps improve teaching, increasing efficiency, and promoting competitiveness.

Project Flow:

To accomplish this, we have to complete all the activities listed below,

- Define Problem / Problem Understanding
  - Specify the business problem
  - Business requirements
  - Literature Survey
  - Social or Business Impact.
- Data Collection & Extraction from Database ○ Collect the dataset,
  - Storing data in DB
  - Perform SQL operations
  - Connect DB with Tableau
- Data Preparation
  - Prepare the Data for Visualization
- Data Visualizations
  - No of Unique Visualizations
- Dashboard
  - Responsive and Design of Dashboard
- Story
  - No of Scenes of Story
- Performance Testing
  - Amount of data rendered to DB
  - Utilization of Data Filters
  - No of Calculation Fields
  - No of Visualizations/ Graphs
- Web Integration
  - Dashboard, Report and Story embed with UI With Flask

Data Collection & Extraction from Database:

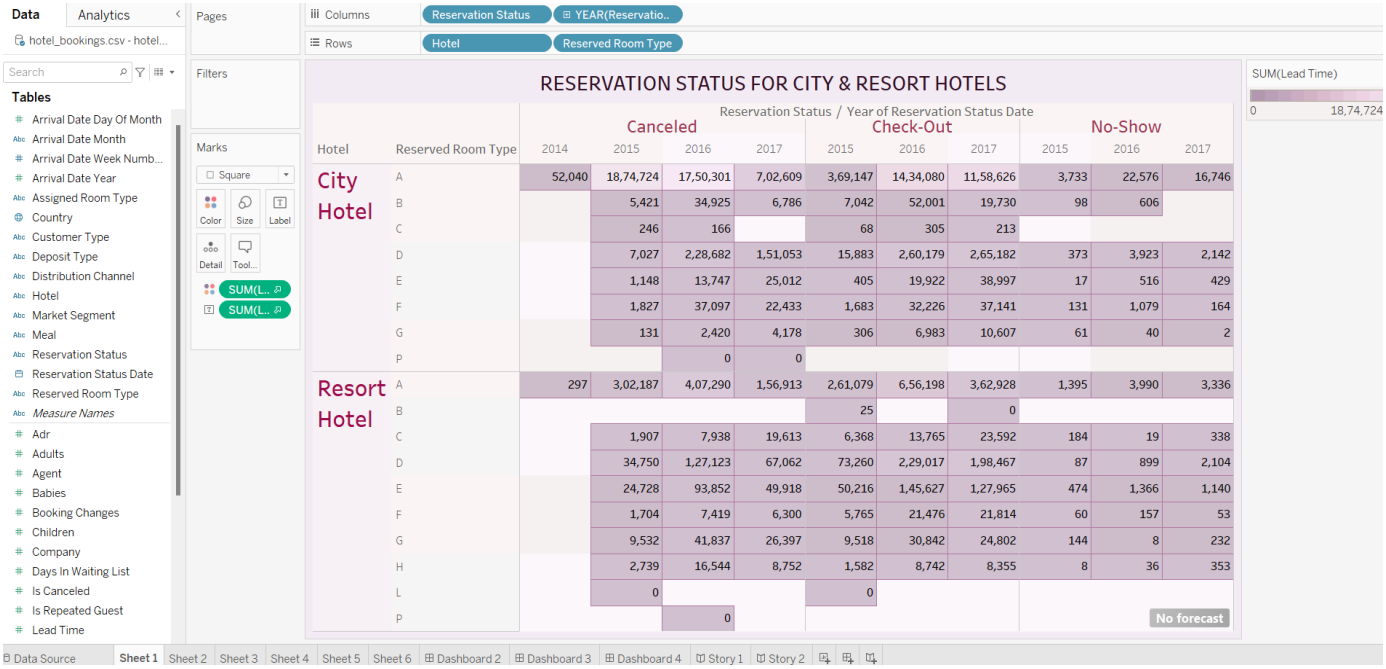
Data collection is the process of gathering and measuring information on variables of interest, in an established systematic fashion that enables one to answer stated research questions, test hypotheses, and evaluate outcomes and generate insights from the data.

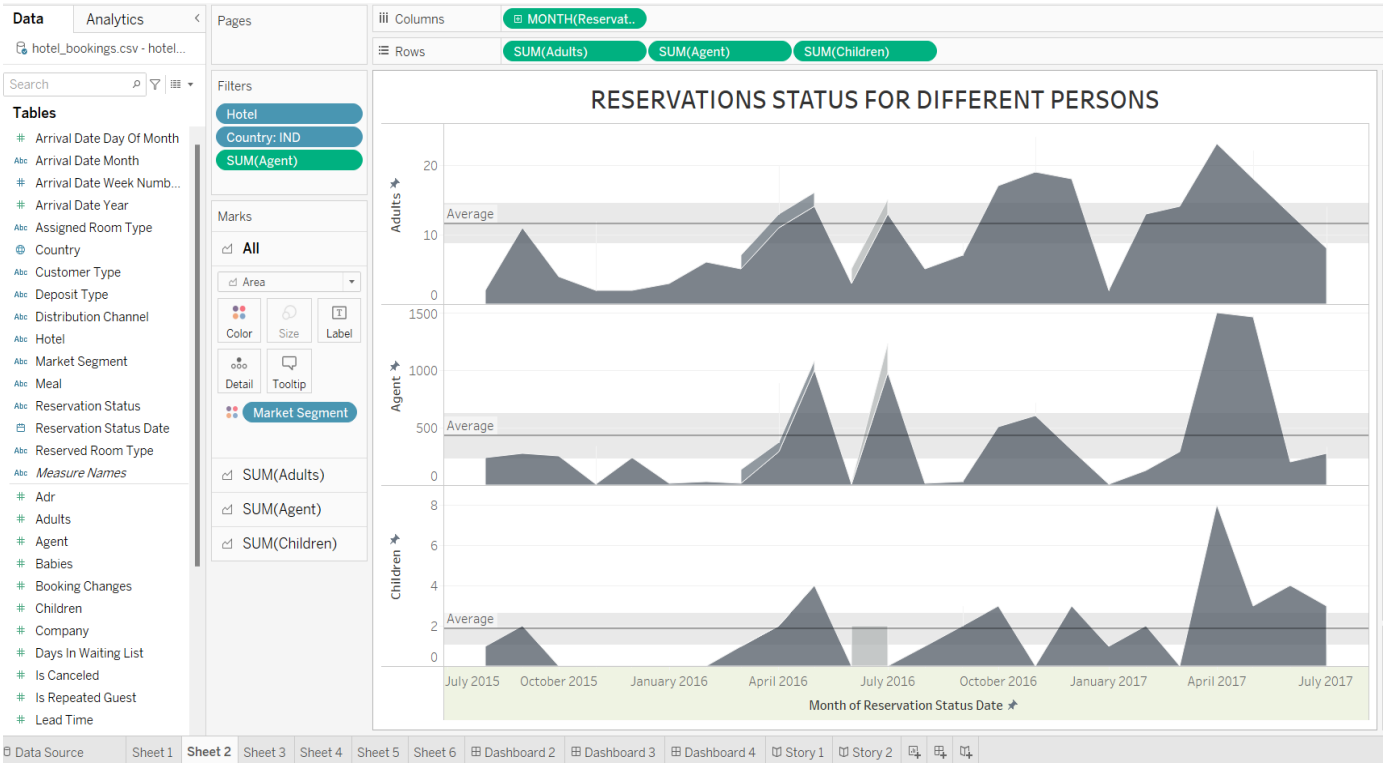
What is a database and which database is used in data analytics?

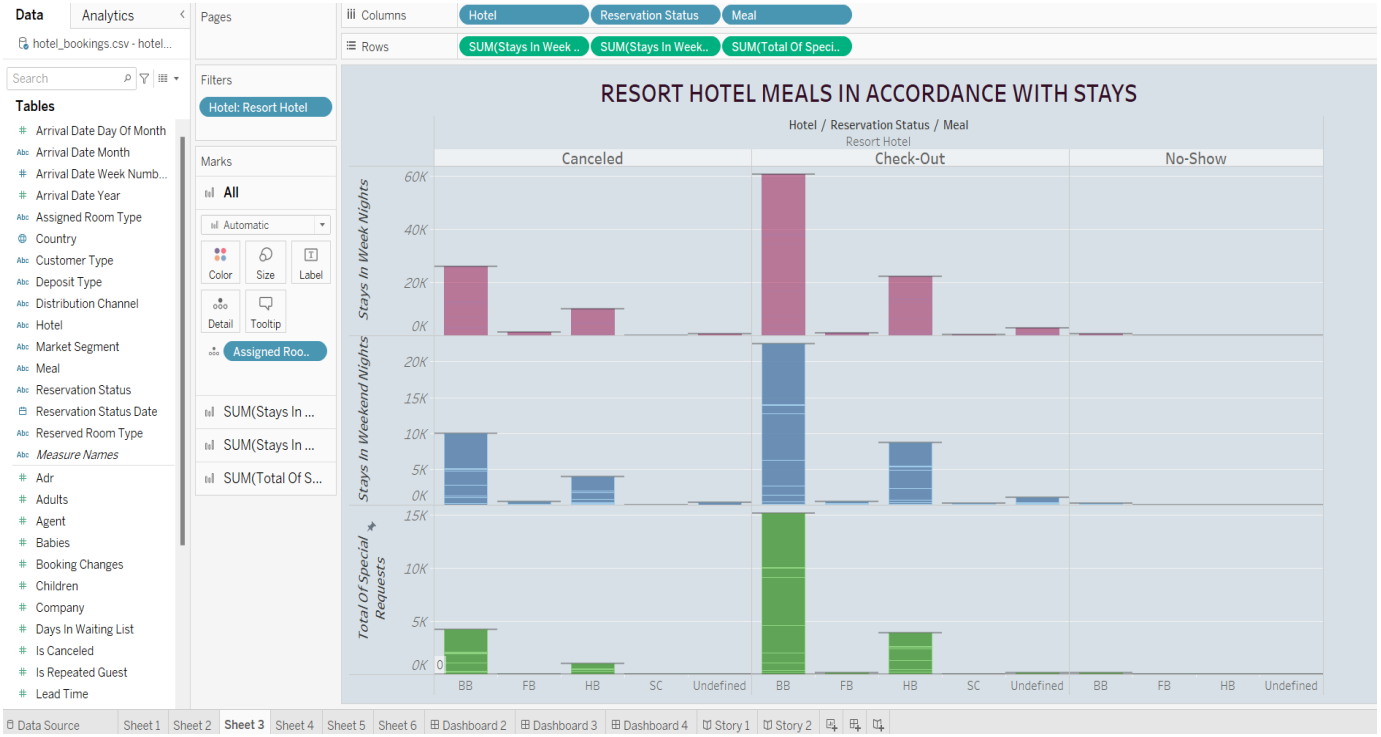
A database is an organized collection of data, stored and accessed electronically. Databases are used to store and manage large amounts of structured and unstructured data, and they can be used to support a wide range of activities, including data storage, data analysis, and data management. Relational and multi-dimensional databases are the most common databases for Operations Analytics. Relational databases store data in rows and columns and they include Microsoft SQL Server, Oracle, Sybase, DB2, Informix, MySQL, etc.

No Of Unique Visualizations:

The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyse the Literacy include bar charts, line charts, heat maps, scatter plots, pie charts, Maps etc. These visualizations can be used to compare and analyse students performance based on number of different parameters.



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20K
0K
15K
10K
5K
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Sheet 3
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Dashboard 2
Dashboard 3
Dashboard 4
Story 1
Story 2


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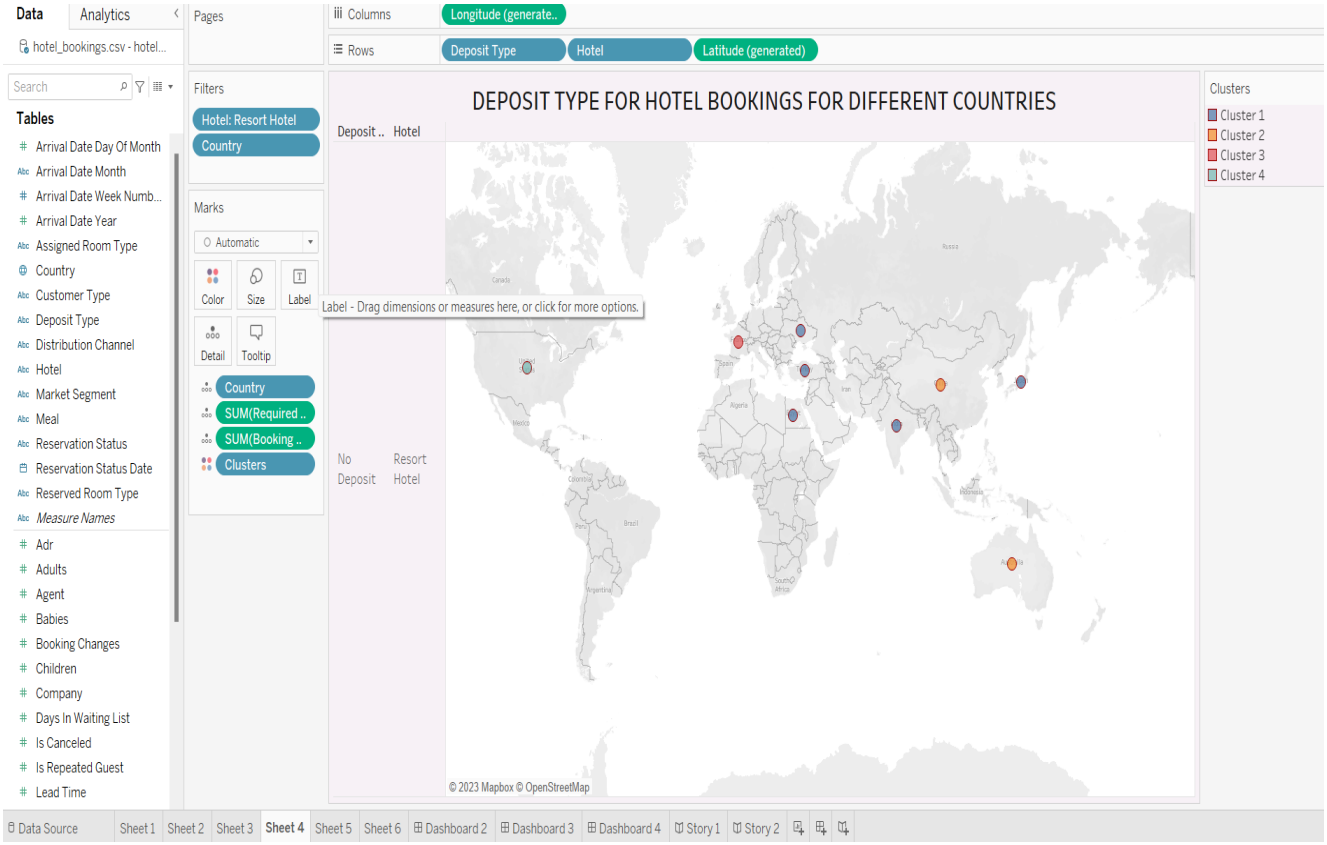
Dashboard 2
Dashboard 3
Dashboard 4
Story 1
Story 2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Clusters
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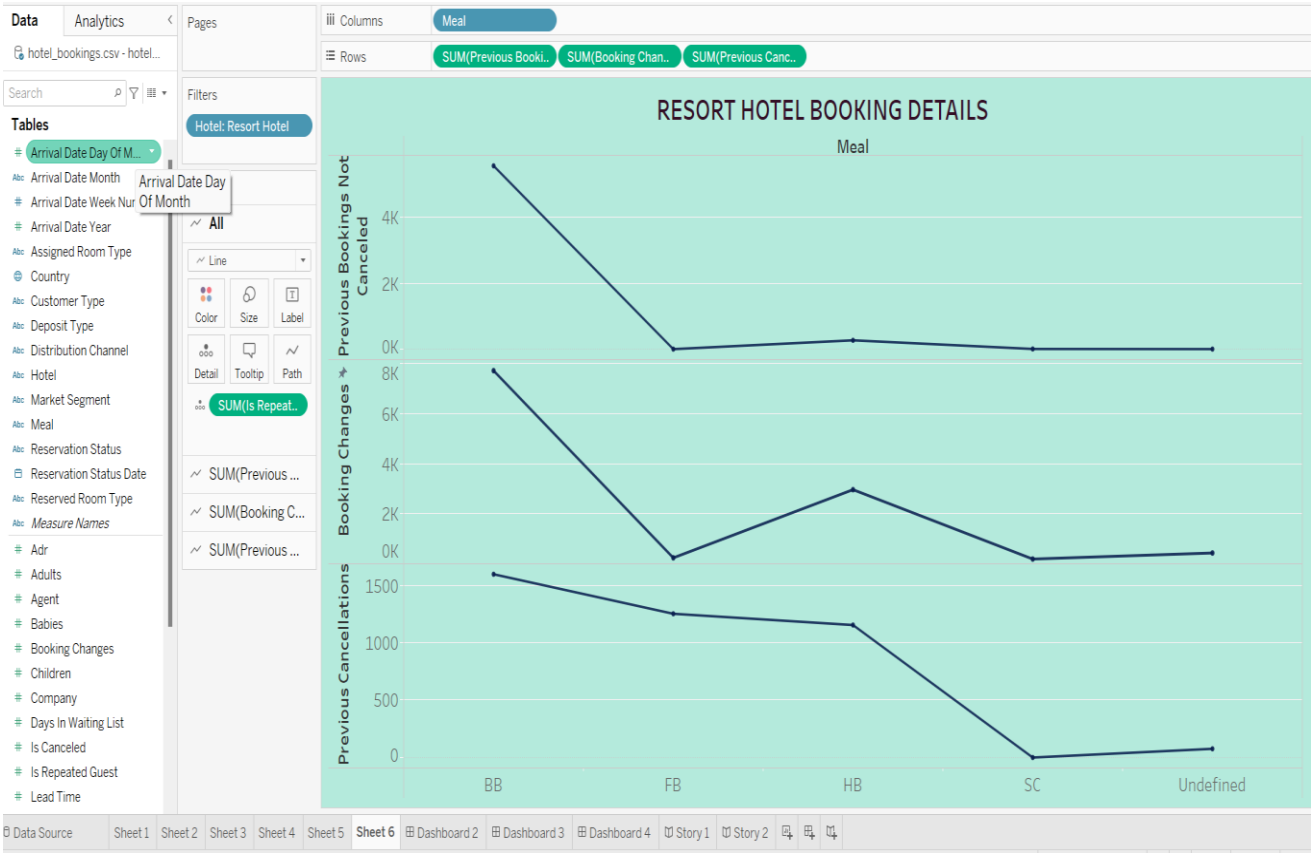
DEPOSIT TYPE FOR HOTEL BOOKINGS FOR DIFFERENT COUNTRIES
Deposit .. Hotel
No Deposit
Resort Hotel
Label - Drag dimensions or measures here, or click for more options.
© 2023 Mapbox © OpenStreetMap
Clusters
Cluster 1
Cluster 2
Cluster 3
Cluster 4
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sheet 5
Sheet 6
Dashboard 2
Dashboard 3
Dashboard 4
Story 1
Story 2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RESORT HOTEL BOOKING DETAILS
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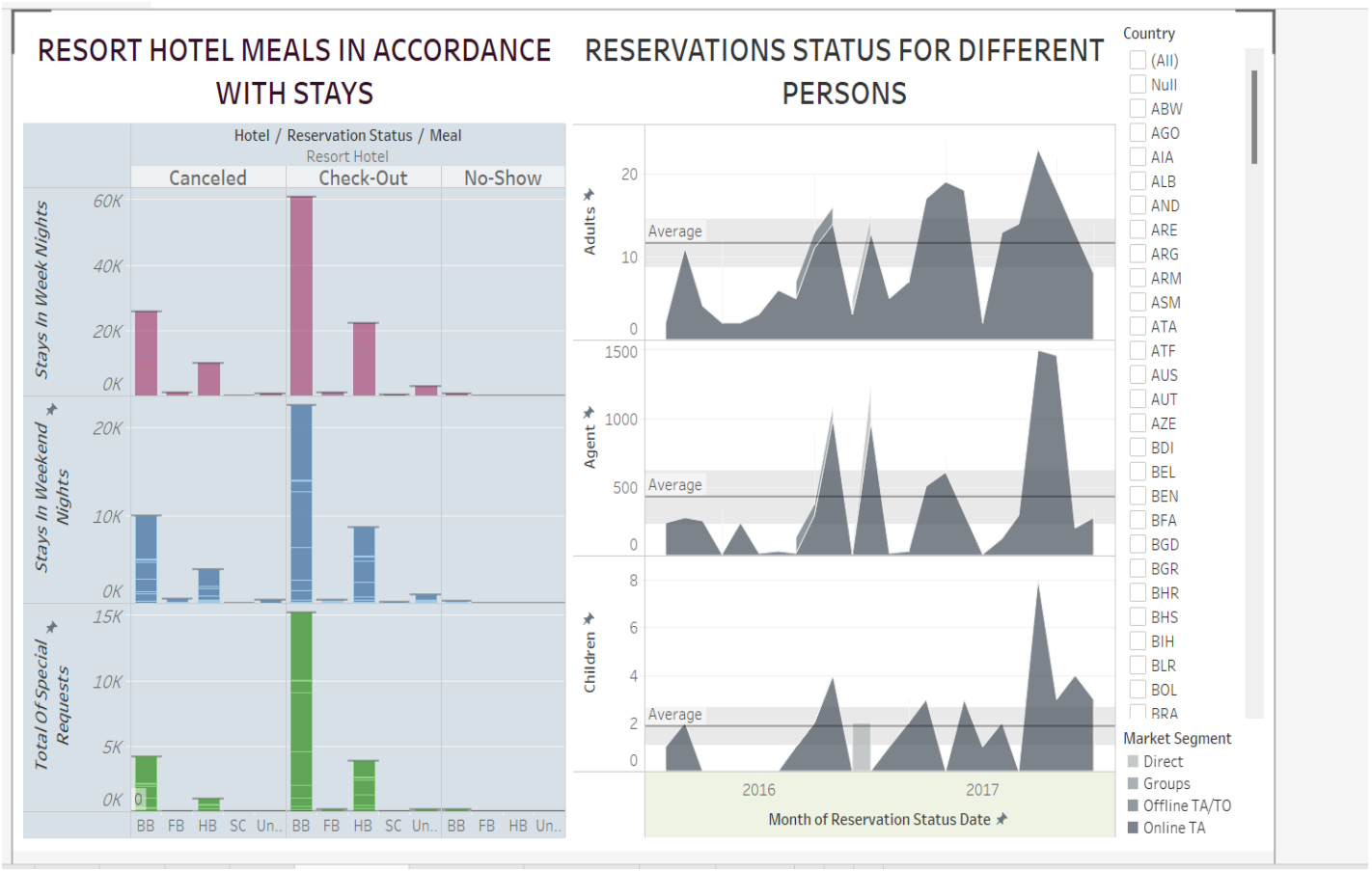
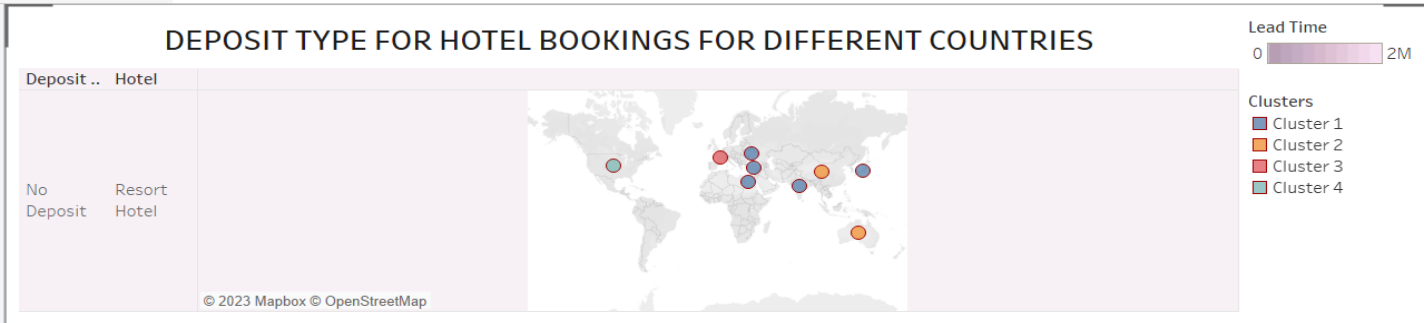
Data Source
Sheet 1
Sheet 2
Sheet 3
Sheet 4
Sheet 5
Sheet 6
Dashboard 2
Dashboard 3
Dashboard 4
Story 1
Story 2

Responsive And Design of Dashboard:

The responsiveness and design of a dashboard for Data-Driven insights on Radisson Hotels is crucial to ensure that the information is easily understandable and actionable. Key considerations for designing a responsive and effective dashboard include user-centred design, clear and concise information, interactivity, data-driven approach, accessibility, customization, and security. The goal is to create a dashboard that is user-friendly, interactive, and data-driven, providing actionable insights.





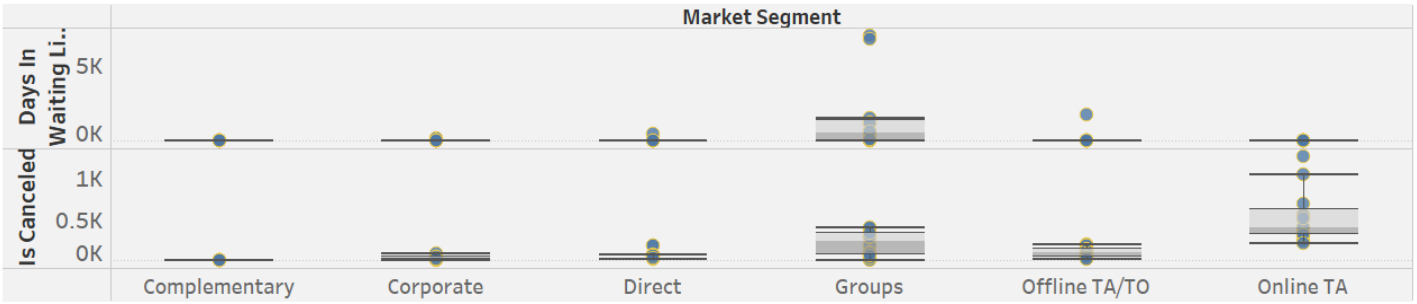
RESERVATION STATUS FOR CITY & RESORT HOTELS

Reservation Status / Year of Reservation Status Date

Hotel	Reserved Room Type	Canceled 2014	Canceled 2015	Canceled 2016	Canceled 2017	Check-Out 2015	Check-Out 2016	Check-Out 2017	No-Show 2015	No-Show 2016	No-Show 2017
City Hotel	A	52,040	18,74,724	17,50,301	7,02,609	3,69,147	14,34,080	11,58,626	3,733	22,576	16,746
	B		5,421	34,925	6,786	7,042	52,001	19,730	98	606	
	C		246	166		68	305	213			
	D		7,027	2,28,682	1,51,053	15,883	2,60,179	2,65,182	373	3,923	2,142
	E		1,148	13,747	25,012	405	19,922	38,997	17	516	429
	F		1,827	37,097	22,433	1,683	32,226	37,141	131	1,079	164
	G		131	2,420	4,178	306	6,983	10,607	61	40	2
	P			0	0						
Resort Hotel	A	297	3,02,187	4,07,290	1,56,913	2,61,079	6,56,198	3,62,928	1,395	3,990	3,336
	B					25		0			
	C		1,907	7,938	19,613	6,368	13,765	23,592	184	19	338
	D		34,750	1,27,123	67,062	73,260	2,29,017	1,98,467	87	899	2,104
	E		24,728	93,852	49,918	50,216	1,45,627	1,27,965	474	1,366	1,140
	F		1,704	7,419	6,300	5,765	21,476	21,814	60	157	53
	G		9,532	41,837	26,397	9,518	30,842	24,802	144	8	232
	H		2,739	16,544	8,752	1,582	8,742	8,355	8	36	353
	L		0			0					
	P			0							

No forecast

MARKET SEGMENT FOR RESORT HOTEL



RESORT HOTEL BOOKING DETAILS

Story:

A data story is a way of presenting data and analysis in a narrative format, with the goal of making the information more engaging and easier to understand. A data story typically includes a clear introduction that sets the stage and explains the context for the data, a body that presents the data and analysis in a logical and systematic way, and a conclusion that summarizes the key findings and highlights their implications. Data stories can be told using a variety of mediums, such as reports, presentations, interactive visualizations, and videos.

Story 2

We observed that there were many booking changes in accordance with Meals.