



ANALYZING THE
PERFORMANCE & EFFICIENCY OF THE
RADISSON HOTELS USING DATA
VISUALIZATION TECHNIQUES

Project Based Experiential Learning program



Analyzing the performance & Efficiency of The Radisson Hotels using Data visualization Techniques

Milestone 1: Define Problem / Problem Understanding :

Activity 1: Specify the business problem.

The hotel industry is a broad category of businesses that provide lodging services for travellers and tourists. This can include a wide range of establishments, from luxury resorts to budget-friendly motels, as well as extended stay hotels, boutique hotels, and more. Hotels can be found in nearly every corner of the world, and are often a major component of the tourism and travel industry in a given area.

Radisson owns multiple five-star hotels across India. They have been in the hospitality industry for the past 100 years. Due to strategic moves from other competitors and ineffective decision-making in management, Radisson is losing its market share and revenue in the luxury/business hotels category. As a strategic move, the managing director of Radisson wanted to incorporate Business and Data Intelligence in order to regain their market share and revenue. Our task is to create an analytics dashboard & story to provide them insights to make better business decisions.

Activity 2: Business requirements.

The business requirements for analyzing the performance and efficiency of Radisson Hotels include identifying KPIs, comparing performance across different hotels, identifying patterns and trends over time, identifying affecting factors, creating interactive dashboards and reports, identifying areas for improvement, making data-driven decisions, comparing to industry average and creating forecasting models for future performance. The ultimate goal is to gain insights and improve performance through data visualization techniques.

Activity 3: Literature Survey.

A literature survey is a method of researching existing literature and studies related to a specific topic. In the context of analyzing the performance and efficiency of Radisson Hotels, a literature survey would involve reviewing studies and articles that have been published on the topic of hotel performance and efficiency, as well as studies specific to Radisson Hotels. The literature survey would include sources such as academic journals, industry reports, and online articles. It would aim to identify key performance indicators (KPIs) and metrics that are commonly used to measure hotel performance and efficiency, as well as any best practices or strategies that have been identified for improving performance. The literature survey would also explore any existing research on Radisson Hotels specifically, and would aim to identify any unique challenges or opportunities that the hotel chain faces in terms of performance and efficiency.

Radisson Hotel Group expands The Club of Revenue Management by Radisson Hotel Group with two new expert teams in APAC

Brussels - 14 March 2023

Following its unparalleled success in 2022, Radisson Hotel Group reinforces its commitment to revenue management innovation with the addition of two new expert teams in APAC, harnessing as such the Group's position as a global player in hospitality revenue management.

2022 was a year of unparalleled success for *The Club of Revenue Management by Radisson Hotel Group (The Club)*. The Club team received the prestigious HSMAI award for "Revenue Management Team of the year", an award that recognizes innovation spirit, the disruptive use of technology, focus on talent development, and outstanding results outperforming the rest of the market.

provides an opportunity and forum for leading travel industry partners, including Expedia Group, MakeMyTrip, and Cvent to highlight their market expertise and provide insight on how to optimize the customer booking journey, as well as improve the guest experience. *The Club of Revenue Management by Radisson Hotel Group* is an international revenue community from more than 40 nationalities with teams in Madrid, Dubai, New Delhi, and Shanghai. The Club operates in 50+ countries and delivers global expertise, local market knowledge, and



revenue management services to 280+ hotels. More than just a revenue management solution, The Club offers successful models for owners and partners to deliver results and uncover new business opportunities in every revenue stream.

Radisson Hotel Group opens first Radisson Individuals hotel in P



Radisson Hotel Group announces the opening of Hotel YAC Paris Clichy, a member of Radisson Individuals, the Group's first Radisson Individuals property in Paris, located in the leafy suburbs of the city of lights. Following an extensive renovation, the hotel welcomes guests with its magnificent rooftop, lush garden, beautiful patio, as well as renovated guest rooms and an indoor swimming pool, all within a short walk of the Seine and the Clichy Bridge.

Hotel YAC Paris Clichy, a member of Radisson Individuals is ideally located in the northwestern suburb of Clichy, one of the most prominent business and corporate hubs in Paris and home to the headquarters of several large companies such as Amazon France, L'Oréal International, Bic, one of the biggest pen producers in the world, and Monoprix, a major French retail chain. Downtown Paris can be easily reached via a short metro or bus ride.

The hotel offers 75 stylish guest rooms featuring striking wooden floors, decorated with soothing, neutral white tones and accented with light green, yellow, and blue colors. Superior Rooms with terraces are bathed in sunlight, with wonderful views over the rooftops, while the onsite restaurant offers delicious food, and room service is available for all rooms. Upon entering the hotel, guests will discover its wonderful garden, where they can enjoy a creamy café au lait and croissant or a delicious cocktail. The hotel's facilities include a well-equipped fitness center, as well as an indoor pool and sauna to recharge and energize.

Activity 4: Social or Business Impact :

Social Impact: Improve safety of customers & can get customer or guest satisfaction, and hygiene food.

Business Model/Impact: By conducting an analysis the company can identify areas for improvement and take steps to enhance the customer experience, and increase customer satisfaction and loyalty. Improve its brand reputation, which can lead to increased customer loyalty and repeat business.

Milestone 2: 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.

Activity 1: Collect the dataset:

dim_hotels.csv - Excel

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Clipboard Font Alignment Number Styles Cells Editing

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format.

N11

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	property_id	property_name	category	city																	
2	16558	Radisson	Luxury	Delhi																	
3	16559	Radisson	Luxury	Mumbai																	
4	16560	Radisson	Business	Delhi																	
5	16561	Radisson	Luxury	Delhi																	
6	16562	Radisson	Luxury	Delhi																	
7	16563	Radisson	Business	Delhi																	
8	17558	Radisson	Luxury	Mumbai																	
9	17559	Radisson	Luxury	Mumbai																	
10	17560	Radisson	Business	Mumbai																	
11	17561	Radisson	Luxury	Mumbai																	
12	17562	Radisson	Luxury	Mumbai																	
13	17563	Radisson	Business	Mumbai																	
14	18558	Radisson	Luxury	Hyderabad																	
15	18559	Radisson	Luxury	Hyderabad																	
16	18560	Radisson	Business	Hyderabad																	
17	18561	Radisson	Luxury	Hyderabad																	
18	18562	Radisson	Luxury	Hyderabad																	
19	18563	Radisson	Business	Hyderabad																	
20	19558	Radisson	Luxury	Bangalore																	
21	19559	Radisson	Luxury	Bangalore																	

dim_hotels

fact_bookings (2).csv - Excel

File Home Insert Page Layout Formulas Data Review View Help Tell me what you want to do

Clipboard Font Alignment Number Styles Cells Editing

POSSIBLE DATA LOSS Some features might be lost if you save this workbook in the comma-delimited (.csv) format. To preserve these features, save it in an Excel file format.

A1

booking_id

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U
1	booking_id	property_id	booking_id	check_in	check_out	no_guests	room_cat	booking_id	ratings	gi	booking_id	revenue	revenue_realized								
2	May01221	16558	#####	#####	#####	3	RT1	direct onli	1	Checked C	10010	10010									
3	May01221	16558	#####	#####	#####	2	RT1	others		Cancelled	9100	3640									
4	May01221	16558	#####	#####	#####	2	RT1	logtrip	5	Checked C	9100	9100									
5	May01221	16558	#####	#####	#####	2	RT1	others		Cancelled	9100	3640									
6	May01221	16558	#####	#####	#####	4	RT1	direct onli	5	Checked C	10920	10920									
7	May01221	16558	#####	#####	#####	2	RT1	others	4	Checked C	9100	9100									
8	May01221	16558	#####	#####	#####	2	RT1	others		Cancelled	9100	3640									
9	May01221	16558	#####	#####	#####	2	RT1	logtrip		No Show	9100	9100									
10	May01221	16558	#####	#####	#####	2	RT1	tripster		Checked C	9100	9100									
11	May01221	16558	#####	#####	#####	1	RT1	others	4	Checked C	9100	9100									
12	May01221	16558	#####	#####	#####	1	RT1	makeyour	5	Checked C	9100	9100									
13	May01221	16558	#####	#####	#####	2	RT1	logtrip	5	Checked C	9100	9100									
14	May01221	16558	#####	#####	#####	2	RT1	makeyour	5	Checked C	9100	9100									
15	May01221	16558	#####	#####	#####	1	RT1	logtrip		Cancelled	9100	3640									
16	May01221	16558	#####	#####	#####	2	RT1	others		Checked C	9100	9100									
17	May01221	16558	#####	#####	#####	4	RT1	journey		Checked C	10920	10920									
18	May01221	16558	#####	#####	#####	3	RT1	direct offline		Checked C	10010	10010									
19	May01221	16558	#####	#####	#####	2	RT1	others		Checked C	9100	9100									
20	May01221	16558	#####	#####	#####	2	RT2	others		Checked C	12600	12600									
21	May01221	16558	#####	#####	#####	2	RT2	others	5	Checked C	12600	12600									

fact_bookings (2)

Ready Accessibility: Unavailable

room_id	room_class
RT1	Standard
RT2	Elite
RT3	Premium
RT4	Presidential

Activity 1.1: Understand the data:

Data contains all the meta information regarding the columns described in the CSV files. we have provided 5 CSV files:

1. dim_date
2. dim_hotels
3. dim_rooms
4. fact_aggregated_bookings
5. fact_bookings

Column Description for dim_date:

1. date: This column represents the dates present in May, June and July.
2. mmm yy: This column represents the date in the format of mmm yy (monthname year).
3. week no: This column represents the unique week number for that particular date.
4. day_type: This column represents whether the given day is Weekend or Weekday.

Column Description for dim_hotels:

1. property_id: This column represents the Unique ID for each of the hotels.
2. property_name: This column represents the name of each hotel.
3. category: This column determines which class[Luxury, Business] a particular hotel/property belongs to.
4. city: This column represents where the particular hotel/property resides in.

Column Description for dim_rooms:

1. room_id: This column represents the type of room[RT1, RT2, RT3, RT4] in a hotel.
2. room_class: This column represents to which class[Standard, Elite, Premium, Presidential] particular room type belongs.

Column Description for fact_aggregated_bookings:

1. property_id: This column represents the Unique ID for each of the hotels.
2. check_in_date: This column represents all the check_in_dates of the customers.
3. room_category: This column represents the type of room[RT1, RT2, RT3, RT4] in a hotel.
4. successful_bookings: This column represents all the successful room bookings that happen for a particular room type in that hotel on that particular date.
5. capacity: This column represents the maximum count of rooms available for a particular room type in that hotel on that particular date.

Column Description for fact_bookings:

1. booking_id: This column represents the Unique Booking ID for each customer when they booked their rooms.
2. property_id: This column represents the Unique ID for each of the hotels
3. booking_date: This column represents the date on which the customer booked their rooms.
4. check_in_date: This column represents the date on which the customer check-in(entered) at the hotel.
5. check_out_date: This column represents the date on which the customer

check-out(left) of the hotel.

6. no_guests: This column represents the number of guests who stayed in a particular room in that hotel.

7. room_category: This column represents the type of room[RT1, RT2, RT3, RT4] in a hotel.

8. booking_platform: This column represents in which way the customer booked his room.

9. ratings_given: This column represents the ratings given by the customer for hotel services.

10. booking_status: This column represents whether the customer cancelled his booking[Cancelled], successfully stayed in the hotel[Checked Out] or booked his room but not stayed in the hotel[No show].

11. revenue_generated: This column represents the amount of money generated by the hotel from a particular customer.

12. revenue_realized: This column represents the final amount of money that goes to the hotel based on booking status. If the booking status is cancelled, then 40% of the revenue generated is deducted and the remaining is refunded to the customer. If the booking status is Checked Out/No show, then full revenue generated will go to hotels.

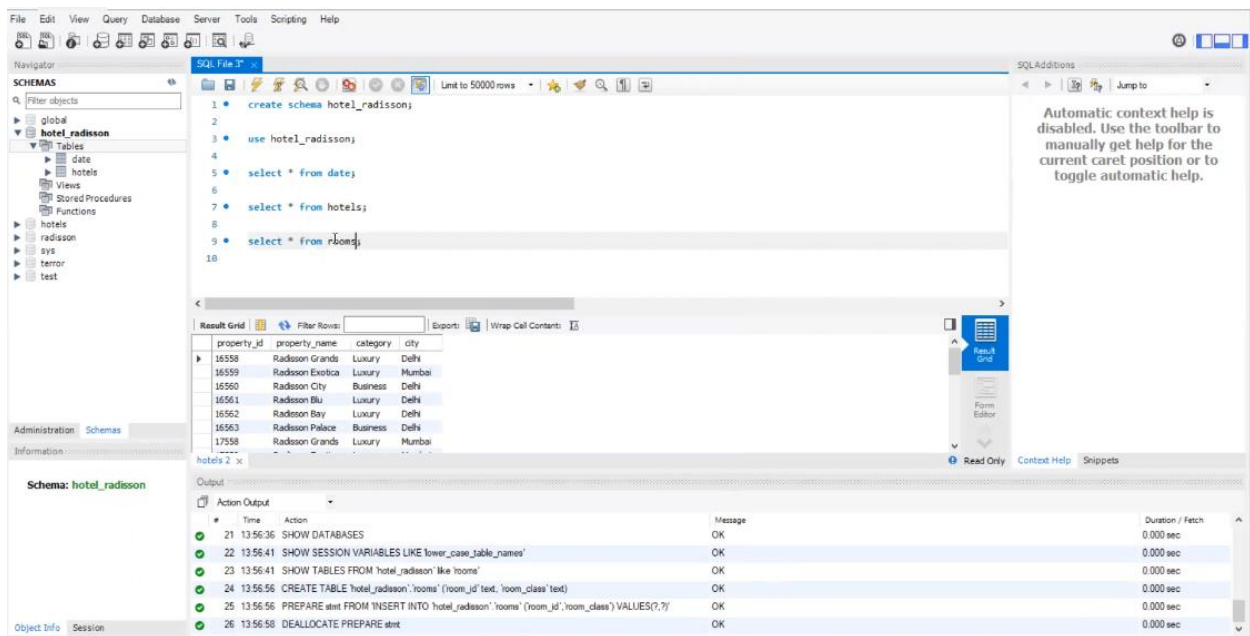
Activity 2: Storing Data In DB & Perform SQL Operations

The screenshot displays the MySQL Workbench interface. The left sidebar shows the 'SCHEMAS' panel with a tree view containing 'global', 'hotel_radisson', 'hotels', 'radisson', 'sys', 'tempor', and 'test'. The 'hotel_radisson' schema is selected. The main editor window shows a SQL script with the following content:

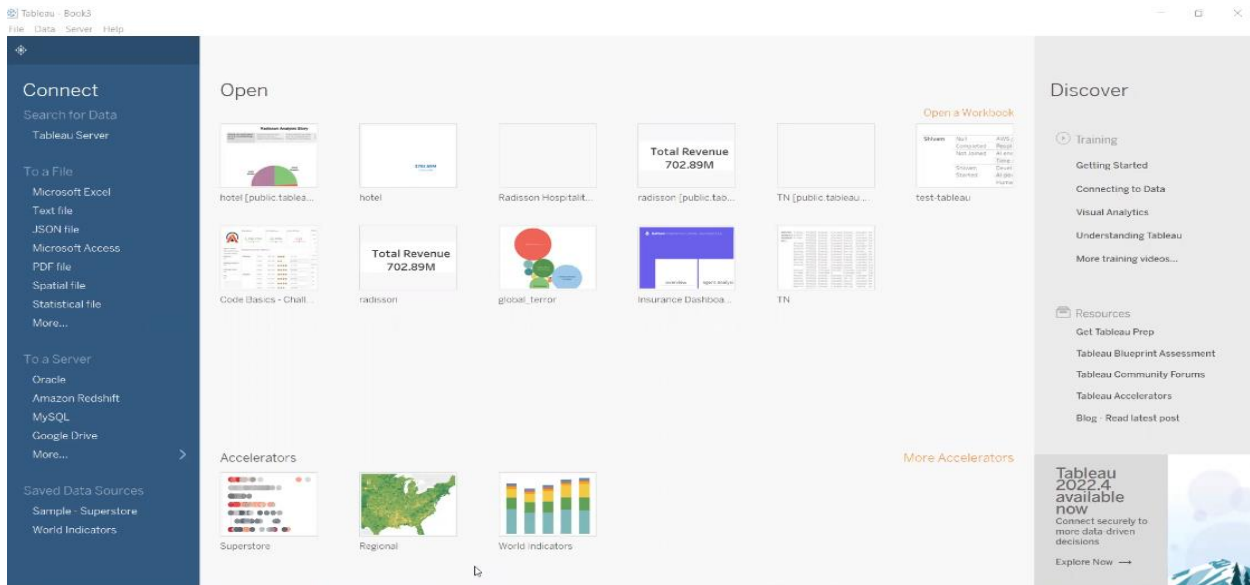
```
1 create schema hotel_radisson;
2
3
```

The bottom panel shows the 'Output' tab with a table of execution results:

#	Time	Action	Message	Duration / Fetch
2	13:50:50	SHOW SESSION VARIABLES LIKE 'lower_case_table_names'	OK	0.000 sec
3	13:50:50	SHOW DATABASES	OK	0.000 sec
4	13:51:00	SHOW SESSION VARIABLES LIKE 'lower_case_table_names'	OK	0.000 sec
5	13:51:00	SHOW TABLES FROM 'hotel_radisson' like 'date'	OK	0.000 sec
6	13:52:00	CREATE TABLE 'hotel_radisson'.'date' ('date' text, 'room' yy 'text', 'week' no 'text', 'day_type' text)	OK	0.000 sec
7	13:52:02	PREPARE stmt FROM 'INSERT INTO 'hotel_radisson'.'date' ('date','room' yy,'week' no,'day_type') VALUES ...	OK	0.000 sec



Activity 3: Connect DB With Tableau



File Data Server Window Help

Connections [Add](#)

127.0.0.1
MySQL

Database
radisson

Table

- dim_date
- dim_hotels
- dim_rooms
- fact_aggregated_bookings
- fact_bookings
- New Custom SQL
- New Union
- New Table Extension

dim_date (radisson)

Connection ☒ Live ☐ Extract Filters 0 | Add

dim_date

Need more data?
Drag tables here to relate them. [Learn more](#)

dim_date 4 fields 92 rows 92 rows

Name	Field Name	Physical Table	Remote Field Name
dim_date			
Abc	Date	dim_date	date
Abc	Mmm Yy	dim_date	mmm yy
Abc	Week No	dim_date	week no

Abc	dim_date	Abc	dim_date	Abc	dim_date	Abc	dim_date
Date	Mmm Yy	Week No	Day Type				
01-May-22	May 22	W 19	weekend				
02-May-22	May 22	W 19	weekend				
03-May-22	May 22	W 19	weekend				
04-May-22	May 22	W 19	weekend				
05-May-22	May 22	W 19	weekend				
06-May-22	May 22	W 19	weekend				
07-May-22	May 22	W 19	weekend				

[Go to Worksheet](#)

File Data Server Window Help

Connections [Add](#)

127.0.0.1
MySQL

Database
radisson

Table

- dim_date
- dim_hotels
- dim_rooms
- fact_aggregated_bookings
- fact_bookings
- New Custom SQL
- New Union
- New Table Extension

dim_date+ (radisson)

Connection ☒ Live ☐ Extract [Edit](#) [Refresh](#) Filters 0 | Add

dim_date fact_aggregated_bookings

dim_date — fact_aggre... 100 rows

How do relationships differ from joins? [Learn more](#)

dim_date	Operator	fact_aggregated_bo...
Abc Date	=	Abc Check In Date
Add more fields		
Performance Options		

fact_aggregated_bookings	fact_aggregated_bookings	fact_aggregated_bookings	fact_aggregated_bookings	fact_aggregated_bookings
Property Id	Check In Date	Room Category	Successful Bookings	Capacity
16559	01-May-22	RT1	25	30
19562	01-May-22	RT1	28	30
19563	01-May-22	RT1	23	30
17558	01-May-22	RT1	13	19
16558	01-May-22	RT1	18	19
17560	01-May-22	RT1	28	40
19568	01-May-22	RT1	26	40

[Go to Worksheet](#)

Data Source [Select 1](#) [Go](#) [Refresh](#) [Add](#)

Milestone 3: Data Preparation :

Activity: Prepare the Data for Visualization :

Preparing the data for visualization involves cleaning the data to remove irrelevant or missing data, transforming the data into a format that can be easily visualized, exploring the data to identify patterns and trends, filtering the data to focus on specific subsets of data, preparing the data for visualization software, and ensuring

the data is accurate and complete. This process helps to make the data easily understandable and ready for creating visualizations to gain insights into the performance and efficiency.

Milestone 4: Data Visualization :

Data visualization is the process of creating graphical representations of data in order to help people understand and explore the information. The goal of data visualization is to make complex data sets more accessible, intuitive, and easier to interpret. By using visual elements such as charts, graphs, and maps, data visualizations can help people quickly identify patterns, trends, and outliers in the data.

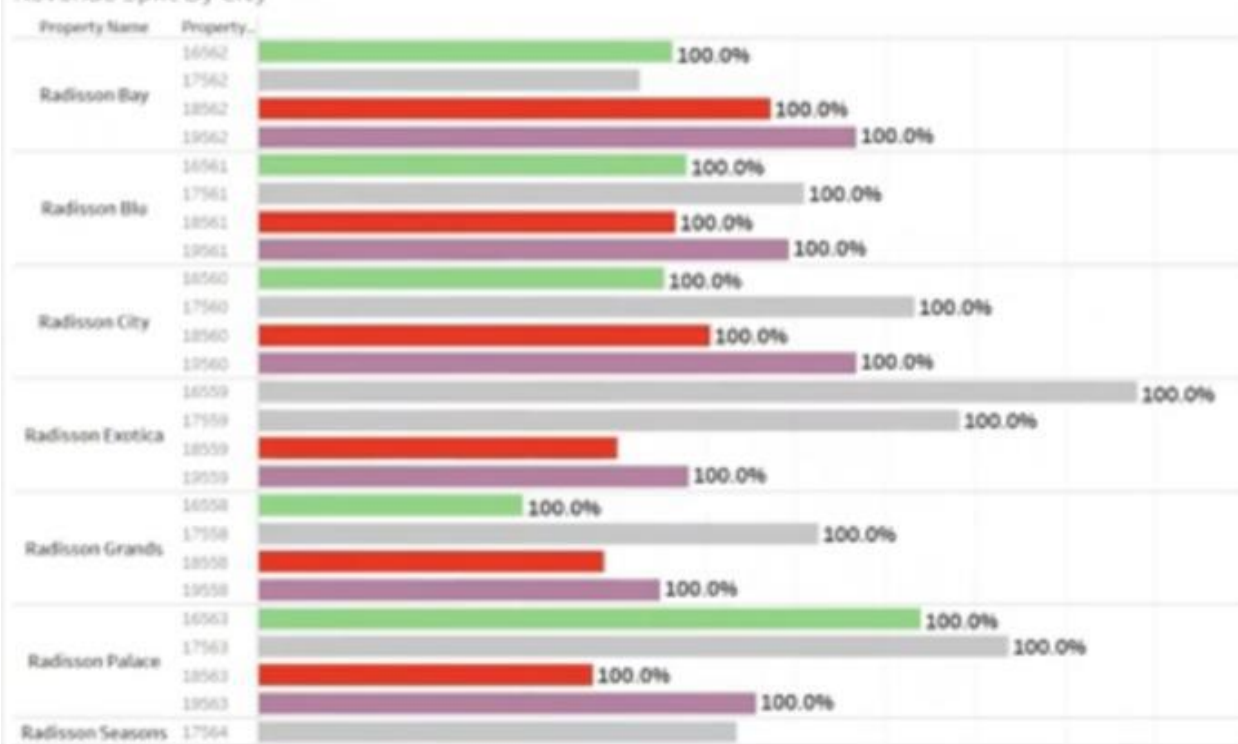
Activity 1: No of Unique Visualizations

The number of unique visualizations that can be created with a given dataset. Some common types of visualizations that can be used to analyze the performance and efficiency of Radisson Hotels include bar charts, line charts, heat maps, scatter plots, pie charts, Maps etc. These visualizations can be used to compare performance, track changes over time, show distribution, and relationships between variables, breakdown of revenue and customer demographics, workload, resource allocation and location of hotels.

Activity 2: Revenue Split By City

In 2022/23, commercial revenue represented Manchester City's largest source of income, generating 373 million euros for the club.

Revenue Split By City

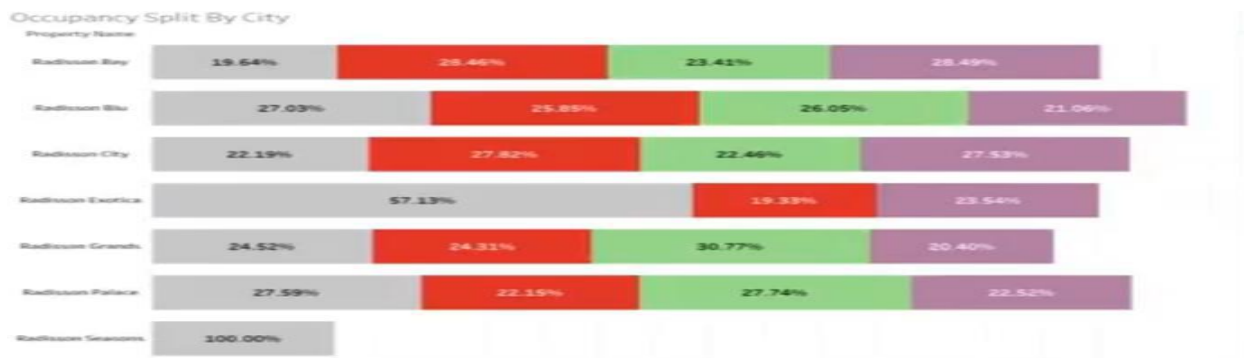


Revenue Split By City

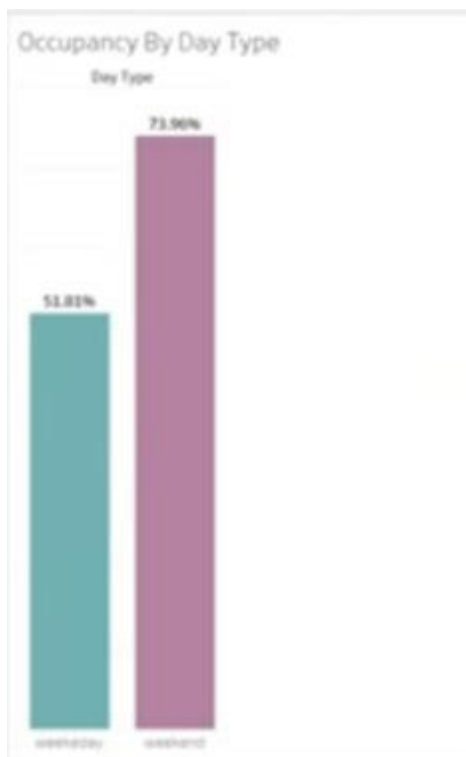


Activity 3: Occupancy Split by City

The occupancy rate in India dropped in financial year 2021 due to the coronavirus (COVID-19) pandemic and travel restrictions implemented alongside. Before the pandemic, the rate had been at over 60 percent in all ten major cities.



Activity 4: Occupancy by Day Type



Occupancy rate is the percentage of occupied rooms in your property at a given time. It is one of the most high-level indicators of success and is calculated by dividing the total number of rooms occupied, by the total number of rooms available, times 100, creating a percentage such as 75% occupancy.

Activity 5: Revenue by Room Class



7 Essential Features of
Online Booking Platform



Contents

2 2. Third-Party Plugins

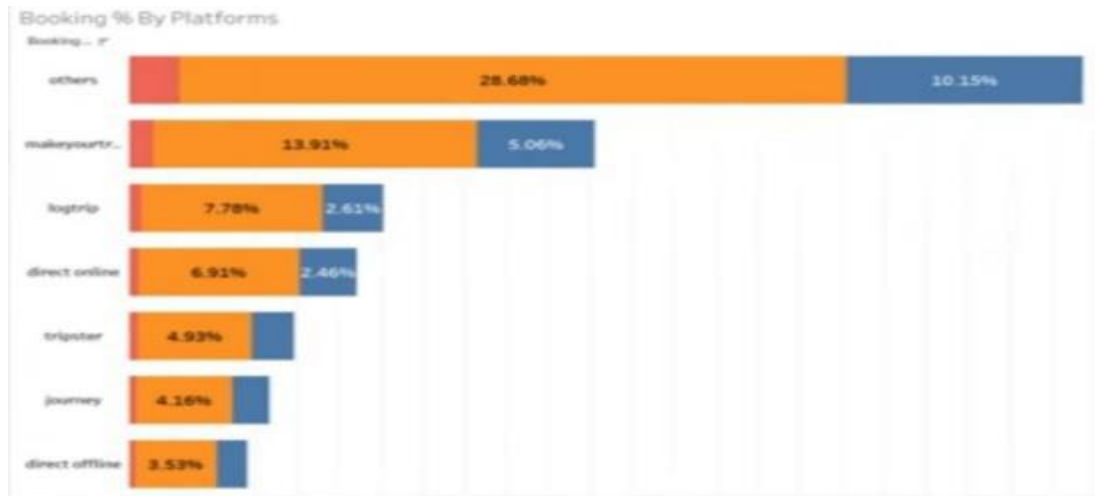
3 3. Payment Gateways

4 4. Real-Time Booking

5 5. Multi-Currency & Multi-Language Options

6 6. Digital Marketing

7 7. Seamless connections to distribution partners



Activity 7: Property by Key Metrics

Top 10 Hotel Metrics to Track

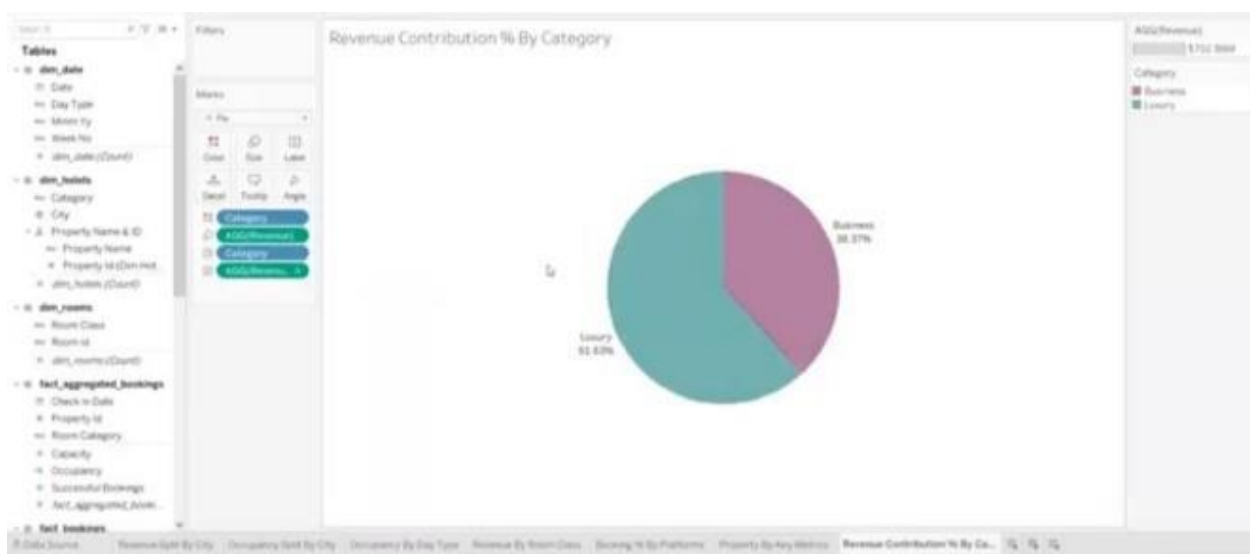
- ☐ Revenue Per Available Room (RevPar) ...
- ☐ Average Daily Rate (ADR) ...
- ☐ Occupancy Rate. ...
- ☐ Gross Operating Profit (GOP) ...
- ☐ Gross Operating Profit per Available Room (GOPPAR) ...
- ☐ Market Penetration Index (MPI) ...
- ☐ Average length of stay (ALOS) ...
- ☐ Revenue Generation Index (RGI)

Property By Key Metrics

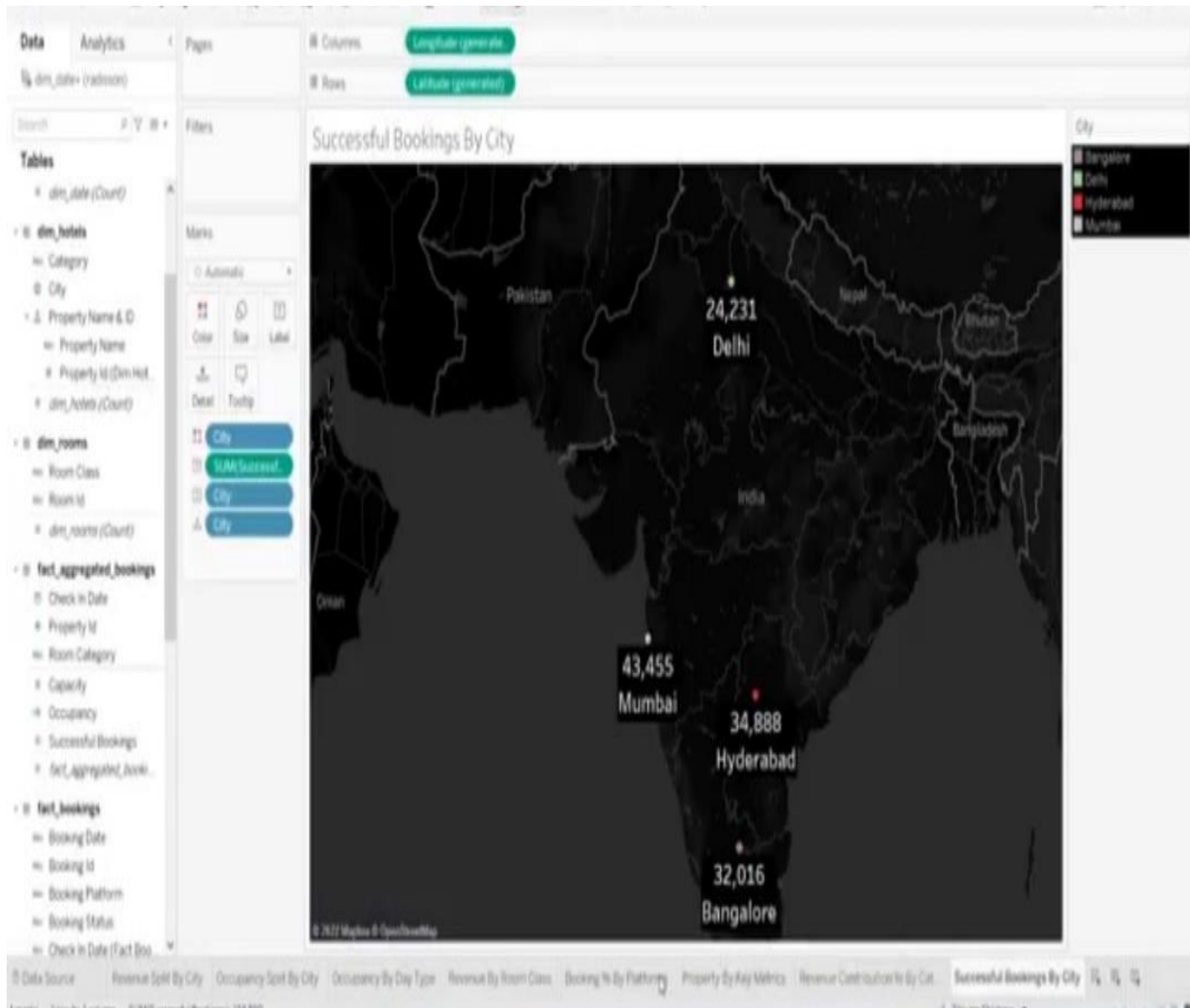
	16562	\$23.12M	9,094	4,820	52.46%	25.79%
	17562	\$21.35M	7,636	3,424	44.34%	26.00%
Radisson Bay	18562	\$28.54M	11,132	7,333	65.87%	25.05%
	19562	\$33.35M	8,832	5,812	65.81%	24.34%
	16561	\$23.88M	6,718	4,418	65.79%	25.63%
Radisson Blu	17561	\$30.43M	7,820	5,183	66.29%	24.50%
	18561	\$23.24M	9,844	6,455	65.60%	23.91%
	19561	\$29.59M	10,764	5,736	53.29%	24.86%
	16560	\$22.67M	8,740	4,693	53.70%	23.76%
Radisson City	17560	\$36.59M	11,316	6,013	53.14%	25.06%
	18560	\$29.21M	10,028	6,838	68.19%	24.85%
	19560	\$33.38M	9,108	5,979	65.65%	25.36%
	16559	\$48.97M	11,132	7,338	65.92%	24.53%
Radisson Exotica	17559	\$39.08M	9,292	6,142	66.10%	24.32%
	18559	\$30.04M	11,776	5,256	44.63%	24.26%
	19559	\$24.01M	8,740	4,705	53.82%	25.22%
	16558	\$14.78M	4,784	3,153	65.91%	25.81%
Radisson Grands	17558	\$31.22M	9,384	5,036	53.67%	24.82%
	18558	\$18.27M	8,372	4,475	53.45%	25.71%
	19558	\$22.44M	9,844	4,371	44.40%	23.72%
	16563	\$36.93M	10,764	7,147	66.40%	25.18%
Radisson Palace	17563	\$41.82M	9,568	6,337	66.23%	25.02%
	18563	\$18.68M	8,924	4,728	52.98%	25.05%
	19563	\$27.75M	10,120	5,413	53.49%	25.64%
Radisson Seasons	17564	\$26.69M	8,924	3,982	44.62%	23.93%

Activity 8: Revenue Contribution % By Category

According to the 2016 edition of Trends in the Hotel Industry, rooms revenue averaged 68.1 percent of total operating revenue in 2015. This metric exceeds 97 percent at limited-service and extended-stay hotels. Alternatively, rooms revenue comprises only 51.8 percent of total revenue at resorts.



Activity 9: Successful Bookings By City



Activity 10: Successful Booking By Date Wise

A useful guide acquainting you with the ample benefits of Guest Messaging in the course of the hotel guest journey.

This guide also introduces you to each of the touch-points (by literally spelling them out for you) giving out stage-wise message templates to enhance (quality) communication and engagement with your hotel guests! Communication is often regarded as one of the major factors behind

facilitating the flow of information and understanding between different people and departments through different media using all the available networks and channels. It holds true for the hospitality sector as well.

- Yes, **last-minute bookings** are (usually) better. A 2022 NerdWallet study analyzed more than 2,500 hotel room rates from 2019 through the first half of 2021 and found an average of 13 percent savings for those who booked 15 days in advance as compared to those who booked four months in advance.



Activity 11: Total Revenue For The Hotels

- $\text{RevPAR} = \text{ADR} * \text{Occupancy Rate}$
- You have to divide the Total Number of Occupied Rooms by the Total Number of Available rooms and multiply the result by 100. RevPAR also enables you to

compare your hotel's RevPAR to the average RevPAR in the market.

$\text{RevPAR} = \text{ADR} * \text{Occupancy Rate}$

You have to divide the Total Number of Occupied Rooms by the Total Number of Available rooms and multiply the result by 100. RevPAR also enables you to compare your hotel's RevPAR to the average RevPAR in the market



Management Adopting total revenue management does not necessarily have to take an enormo teams to establish total hotel revenue management concepts. Here are five easy steps to help you in the initial stages of your journey:

1. Adopt a total revenue management mentality in each decision-making, planning, meetings, and performance reviews.
2. Train and educate all stakeholders in the hotel on the importance of total revenue management, its expectations and the successes that can be achieved.

activity 13 : Occupancy In %

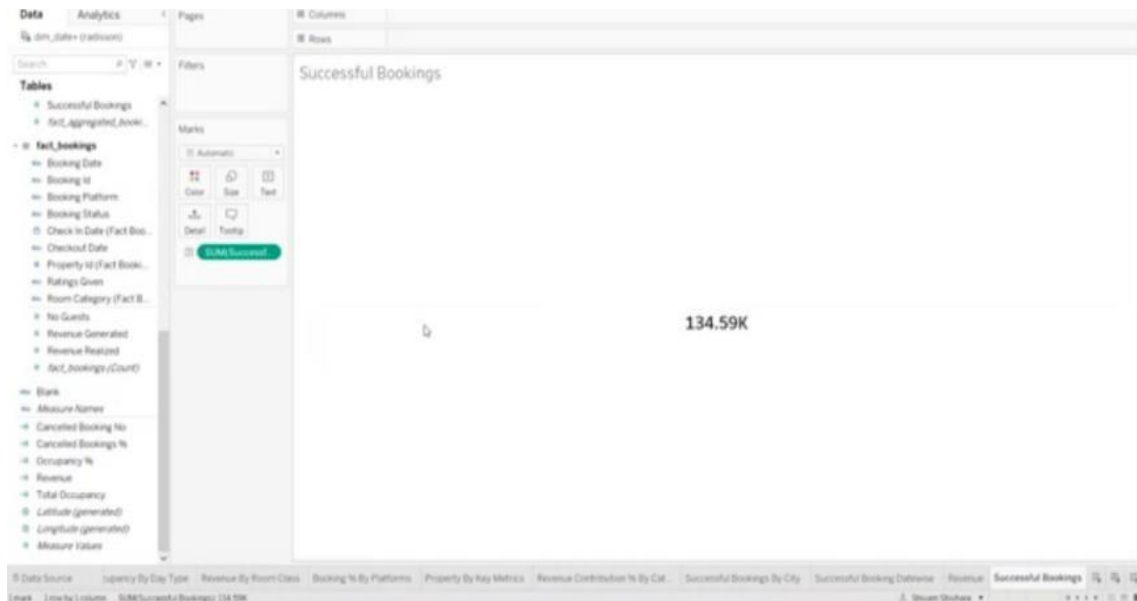
Occupancy in a hotel is calculated by the number of occupied rooms divided by the number of available rooms that physically exist in a hotel. For example, if Occupancy is 65%, this means that 65 rooms are occupied if the hotel has a total of 100 x rooms.



$$\text{Occupancy} = \frac{\text{Rooms Sold}}{\text{Rooms Available}}$$

© xotels.com

Room occupancy rate indicates the ratio between occupied rooms and available rooms. Two variables of room occupancy are used in tourism statistics: net occupancy rate and gross occupancy rate.



An occupancy rate is measured by dividing the number of occupied rooms by the number of available rooms and multiplying by 100, showing the percentage of rooms occupied at a specific .

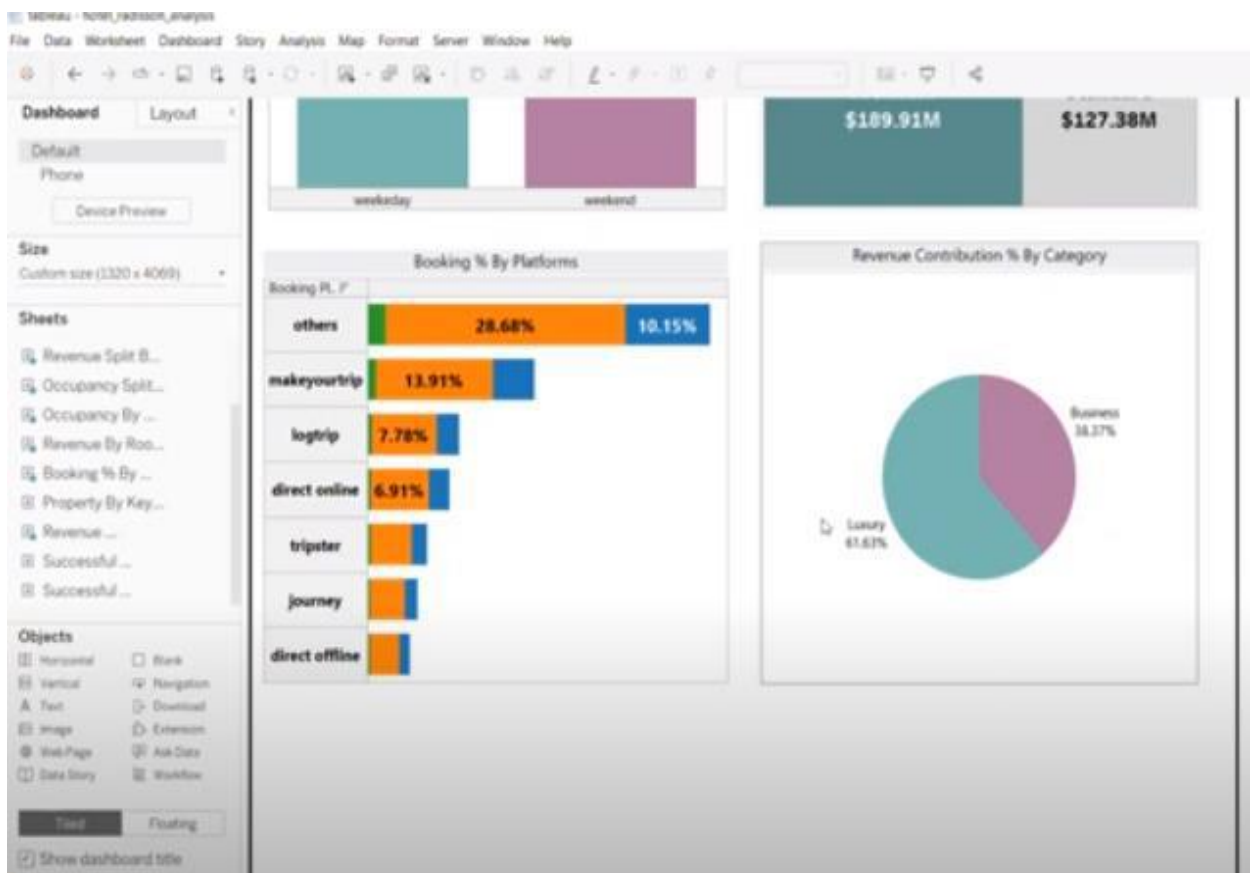
Milestone 5: Dashboard :

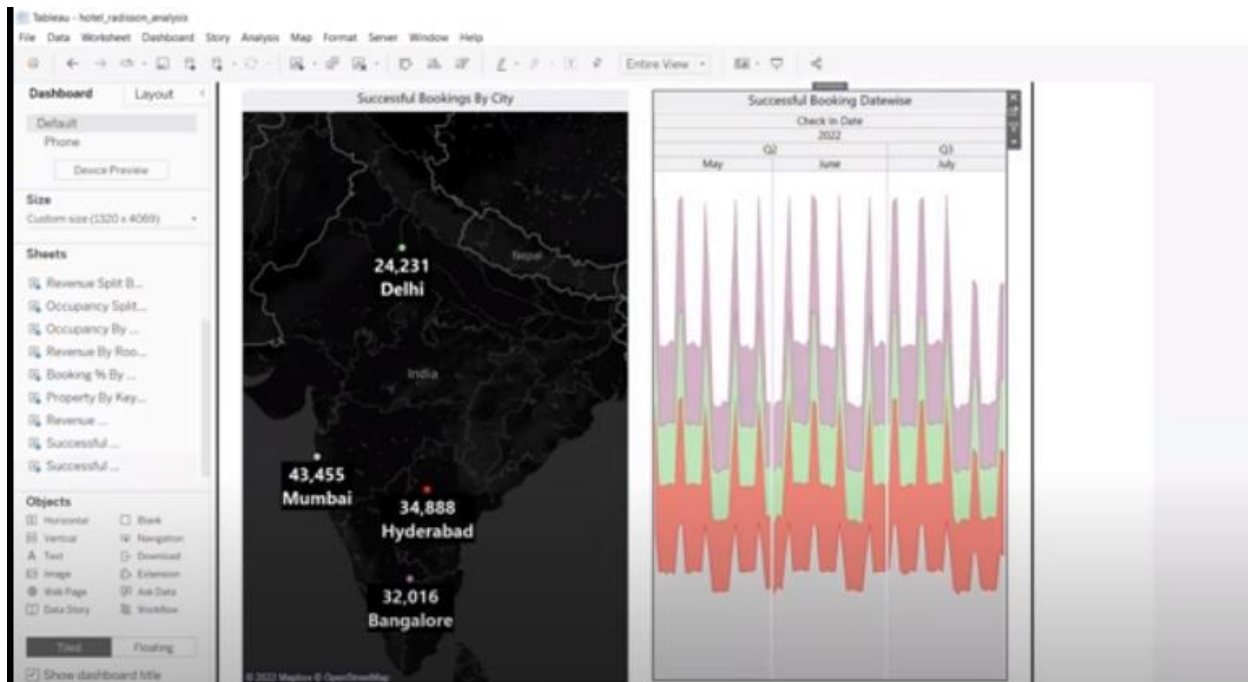
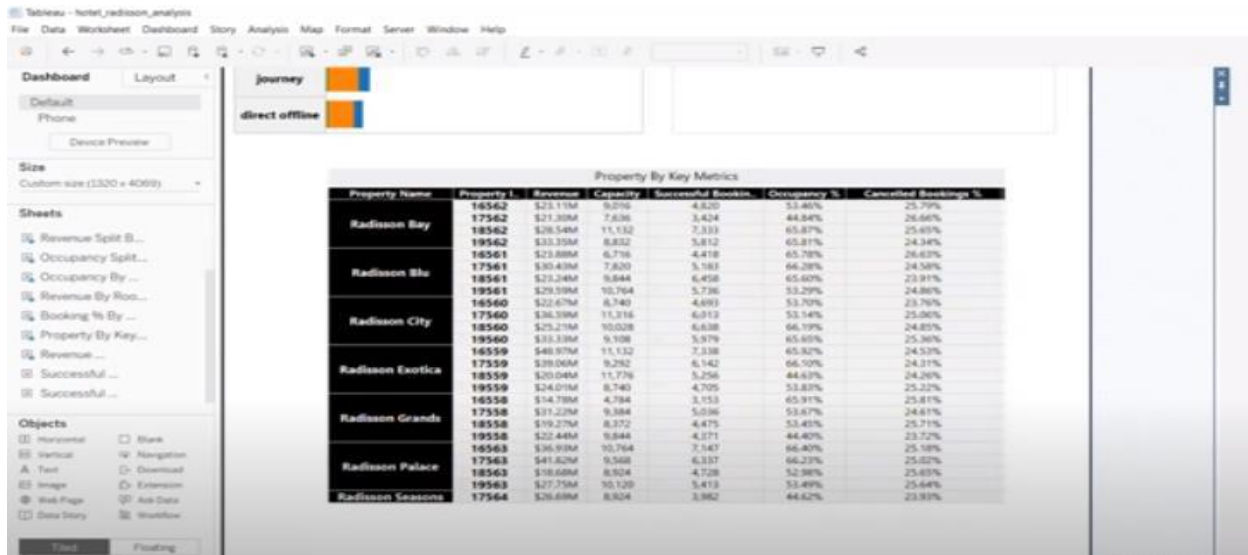
A dashboard is a graphical user interface (GUI) that displays information and data in an organized, easy-to-read format. Dashboards are often used to provide real-time monitoring and analysis of data, and are typically designed for a specific purpose or use case. Dashboards can be used in a variety of settings, such as business, finance, manufacturing, healthcare, and many other industries. They can be used to track key performance indicators (KPIs), monitor performance metrics, and display data in the form of charts, graphs, and tables.

Activity 1: Responsive And Design Of Dashboard

The responsiveness and design of a dashboard for analyzing the performance and efficiency of 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-centered 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 to improve the performance and efficiency of Radisson Hotels. Once

you have created views on different sheets in Tableau, you can pull them into a dashboard



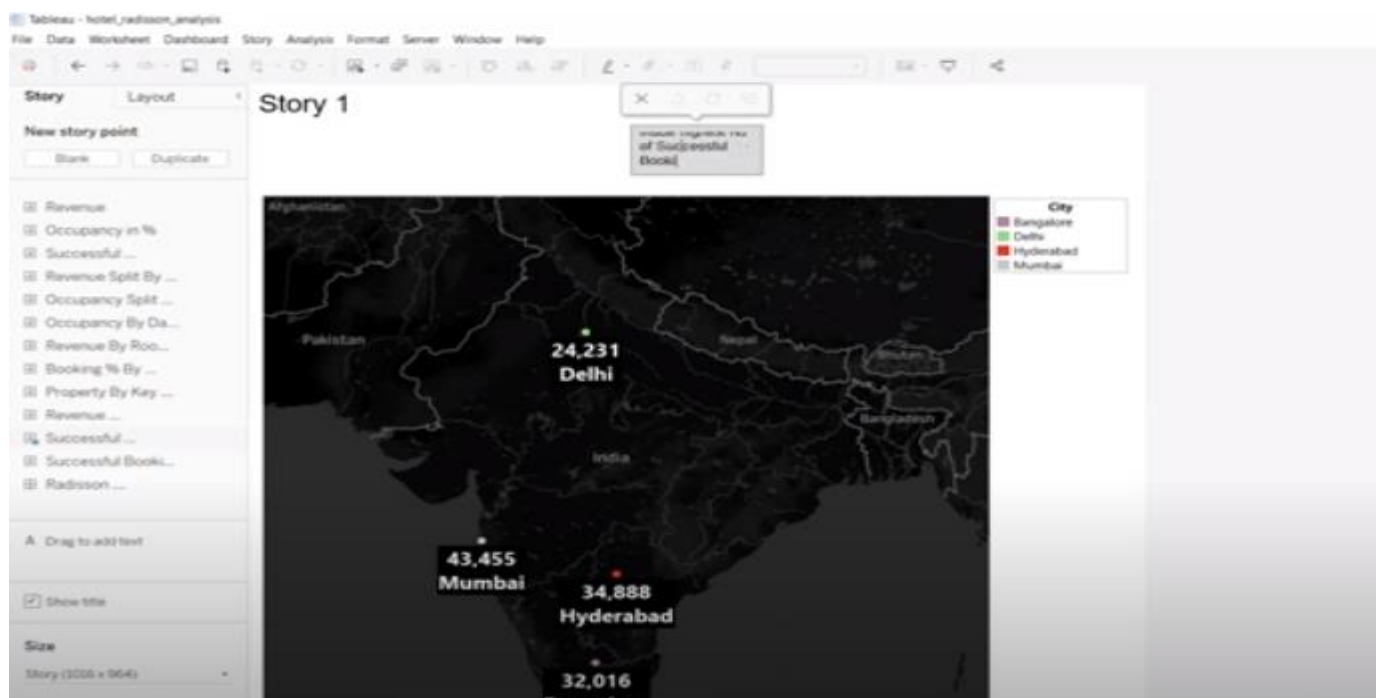


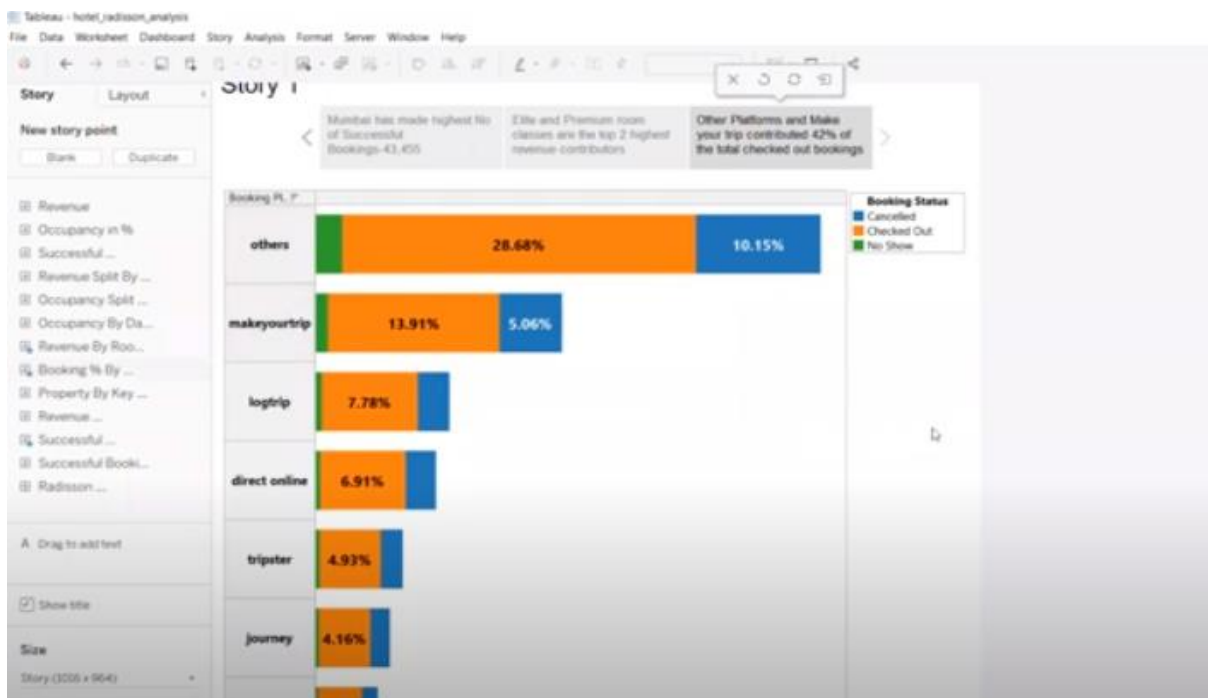
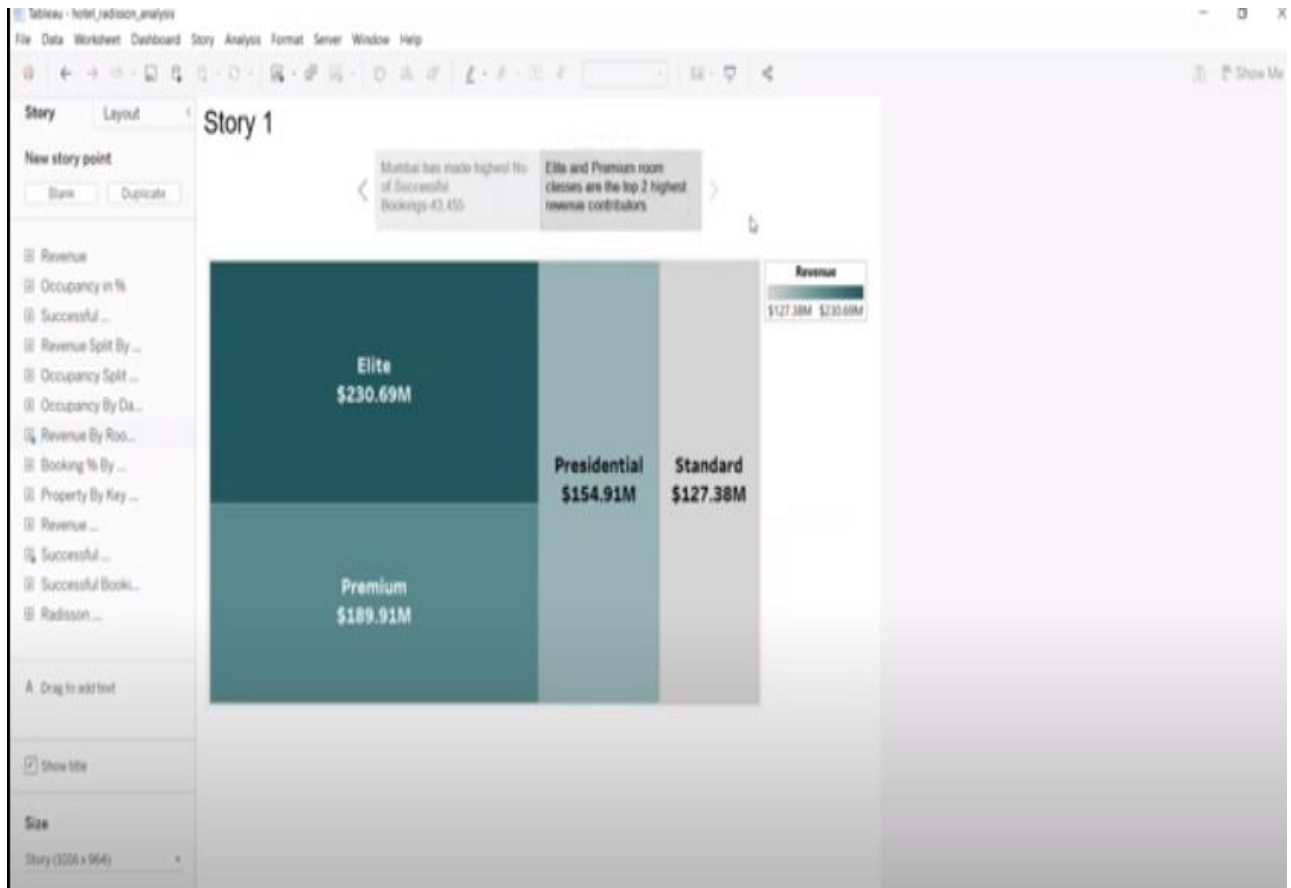
Milestone 6: Story :

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

.Activity: 1- No of Scenes of Story :

The number of scenes in a storyboard for a data visualization analysis of the performance and efficiency of Radisson Hotels will depend on the complexity of the analysis and the specific insights that are trying to be conveyed. A storyboard is a visual representation of the data analysis process and it breaks down the analysis into a series of steps or scenes.

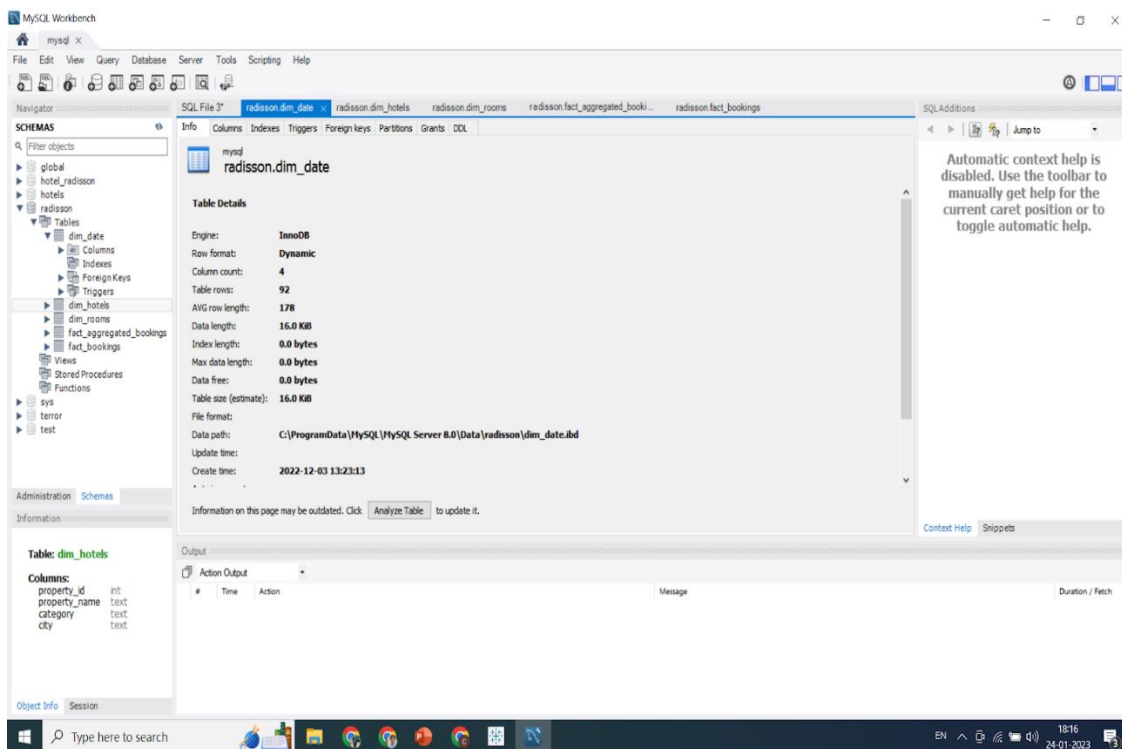
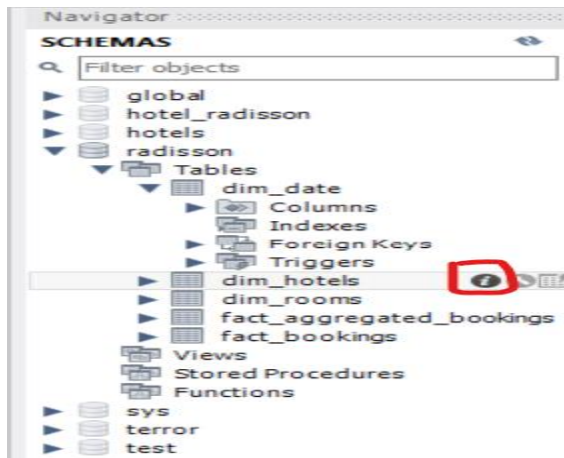




Milestone 7: Performance Testing:

Activity 1: Amount of Data Rendered to DB:

The amount of data that is rendered to a database depends on the size of the dataset and the capacity of the database to store and retrieve data. Open the MySQL Workbench, go to the database then click to expand the tables, select the table and click on (i) button to get the information related to table such as column count, table rows etc.



MySQL Workbench

mysql x

File Edit View Query Database Server Tools Scripting Help

Navigator

SQL File 3* radisson.dim_date radisson.dim_hotels radisson.dim_rooms radisson.fact_aggregated_booki... radisson.fact_bookings

SCHEMAS

Filter objects

- global
- hotel_radisson
- hotels
- radisson
 - Tables
 - dim_date
 - dim_hotels
 - dim_rooms
 - fact_aggregated_bookings
 - fact_bookings
 - Views
 - Stored Procedures
 - Functions
- sys
- terror
- test

Administration Schemas

Information

Table: dim_hotels

Columns:

property_id	int
property_name	text
category	text
city	text

Object Info Session

Table Details

Engine: InnoDB

Row format: Dynamic

Column count: 4

Table rows: 25

AVG row length: 655

Data length: 16.0 KiB

Index length: 0.0 bytes

Max data length: 0.0 bytes

Data free: 0.0 bytes

Table size (estimate): 16.0 KiB

File format:

Data path: C:\ProgramData\MySQL\MySQL Server 8.0\Data\radisson\dim_hotels.ibd

Update time:

Create time: 2022-12-03 10:49:55

Information on this page may be outdated. Click [Analyze Table](#) to update it.

Output

Action Output

#	Time	Action	Message	Duration / Fetch
---	------	--------	---------	------------------

Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

Context Help Snippets

Type here to search

18:17 24-01-2023

MySQL Workbench

mysql x

File Edit View Query Database Server Tools Scripting Help

Navigator

SQL File 3* radisson.dim_date radisson.dim_hotels radisson.dim_rooms radisson.fact_aggregated_booki... radisson.fact_bookings

SCHEMAS

Filter objects

- global
- hotel_radisson
- hotels
- radisson
 - Tables
 - dim_date
 - dim_hotels
 - dim_rooms
 - fact_aggregated_bookings
 - fact_bookings
 - Views
 - Stored Procedures
 - Functions
- sys
- terror
- test

Administration Schemas

Information

Table: dim_hotels

Columns:

property_id	int
property_name	text
category	text
city	text

Object Info Session

Table Details

Engine: InnoDB

Row format: Dynamic

Column count: 2

Table rows: 4

AVG row length: 4096

Data length: 16.0 KiB

Index length: 0.0 bytes

Max data length: 0.0 bytes

Data free: 0.0 bytes

Table size (estimate): 16.0 KiB

File format:

Data path: C:\ProgramData\MySQL\MySQL Server 8.0\Data\radisson\dim_rooms.ibd

Update time:

Create time: 2022-12-03 10:50:30

Information on this page may be outdated. Click [Analyze Table](#) to update it.

Output

Action Output

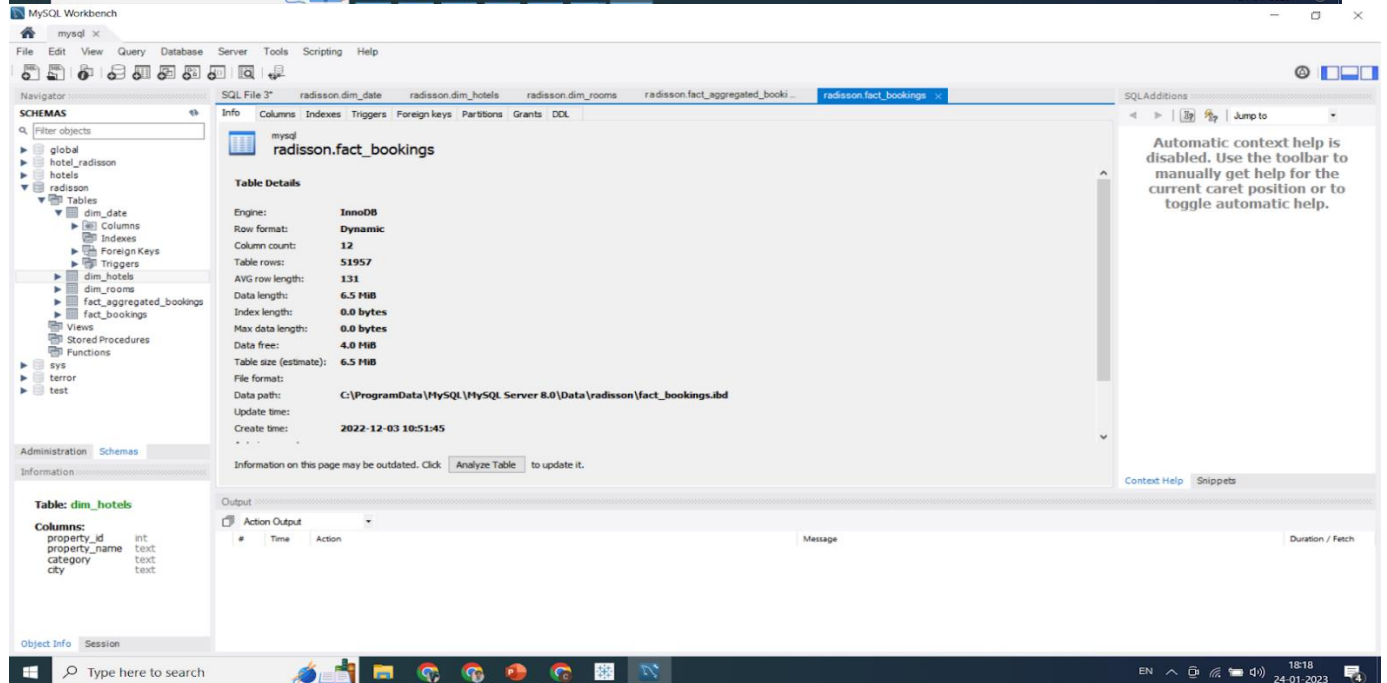
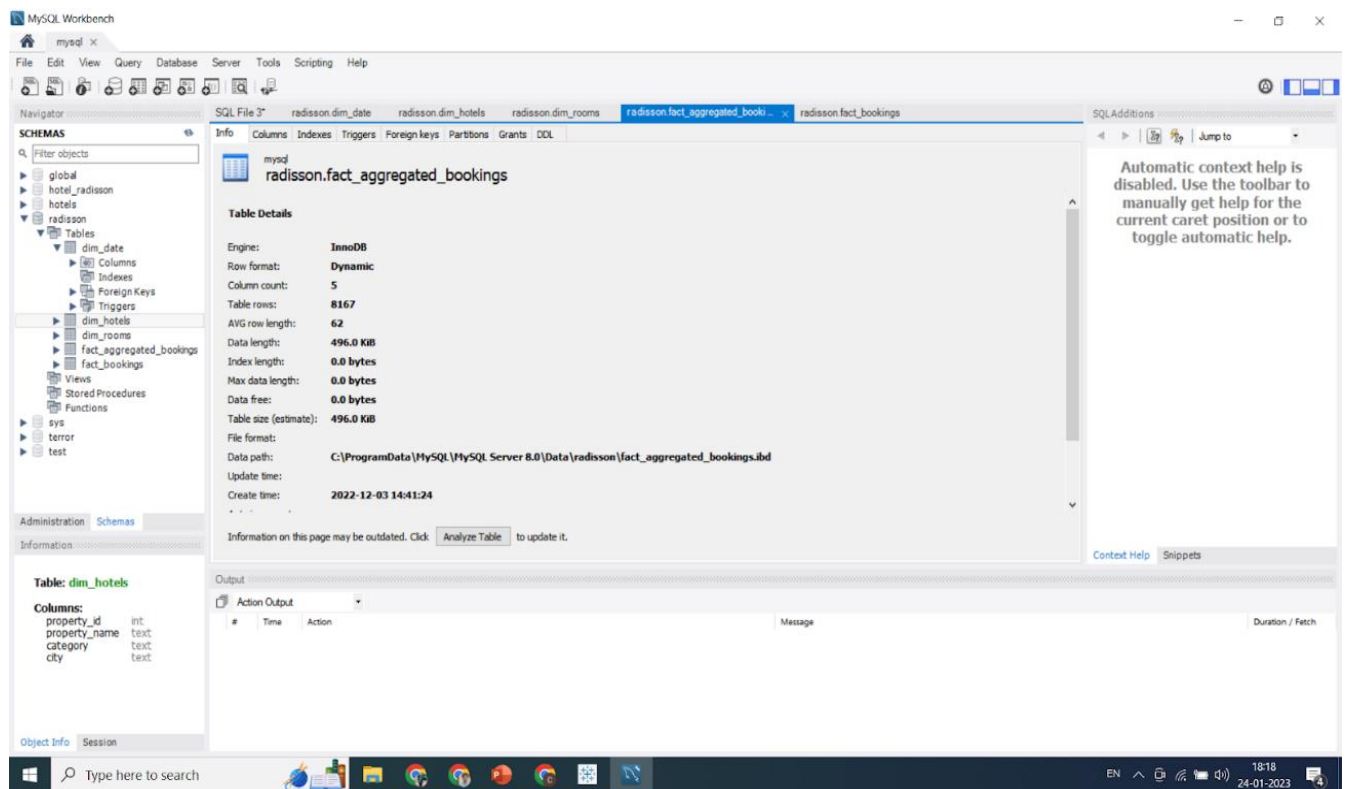
#	Time	Action	Message	Duration / Fetch
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Automatic context help is disabled. Use the toolbar to manually get help for the current caret position or to toggle automatic help.

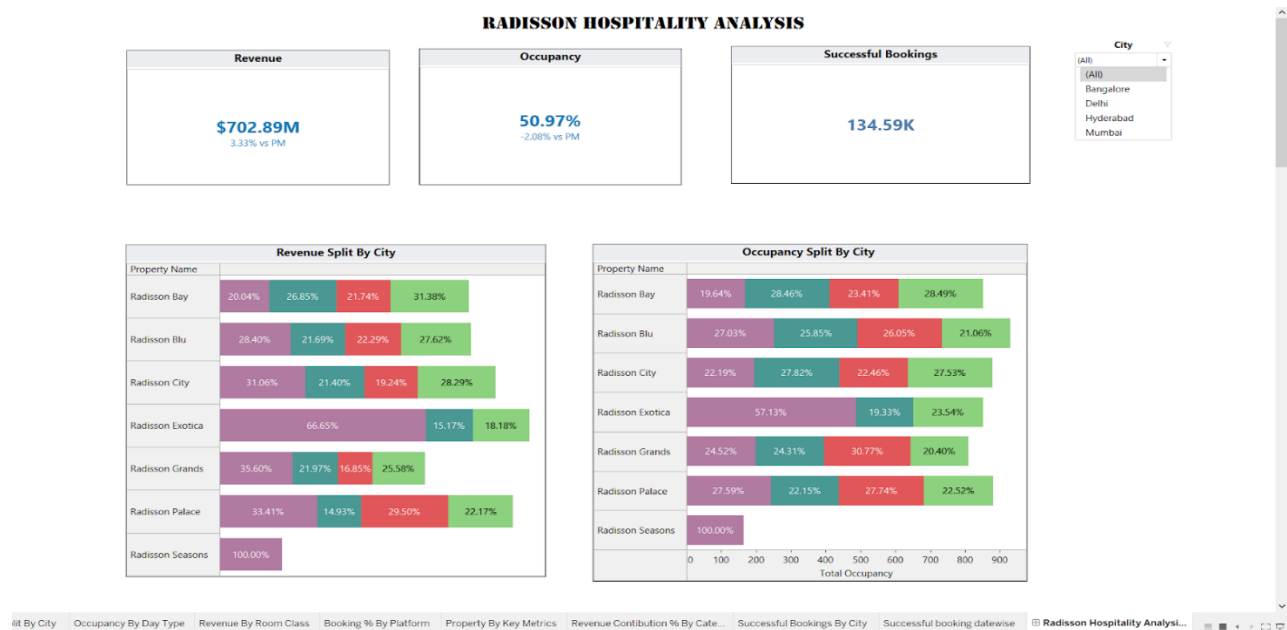
Context Help Snippets

Type here to search

18:18 24-01-2023



Activity 2: Utilization Of Data Filters



Activity 3 :No Of Calculation Fields

Tables

Measure Names

- > % Occupancy change co...
- > % Occupancy Change p...
- > % rating Change
- > % Revenue Change Color
- > % Revenue Change per ...
- > % Revenue Change per ...
- > Cancelled booking no.
- > Cancelled bookings %
- > Current Month Revenue
- > Occupancy - Current Mo...
- > Occupancy %
- > Occupancy Change per ...
- > Occupancy Previous Mo...
- > Previous Month Revenue
- > Rating
- > rating change color
- > Rating Current Month
- > Ratings Change
- > ratings given replace val...
- > ratings given replace val...
- > Ratings Previous Month
- > ratings round
- > Revenue
- > Revenue Change per Mo...
- > Total Occupancy

Activity 4 : No Of Visualizations/ Graphs

1. Revenue split by city

2. Occupancy split by city
3. Occupancy by day type
4. Revenue by room class
5. Booking % by platform
6. Property By key metrics
7. Revenue contribution % by category
8. Successful Bookings by city
9. Successful Booking by date wise

Total Revenue for the hotels

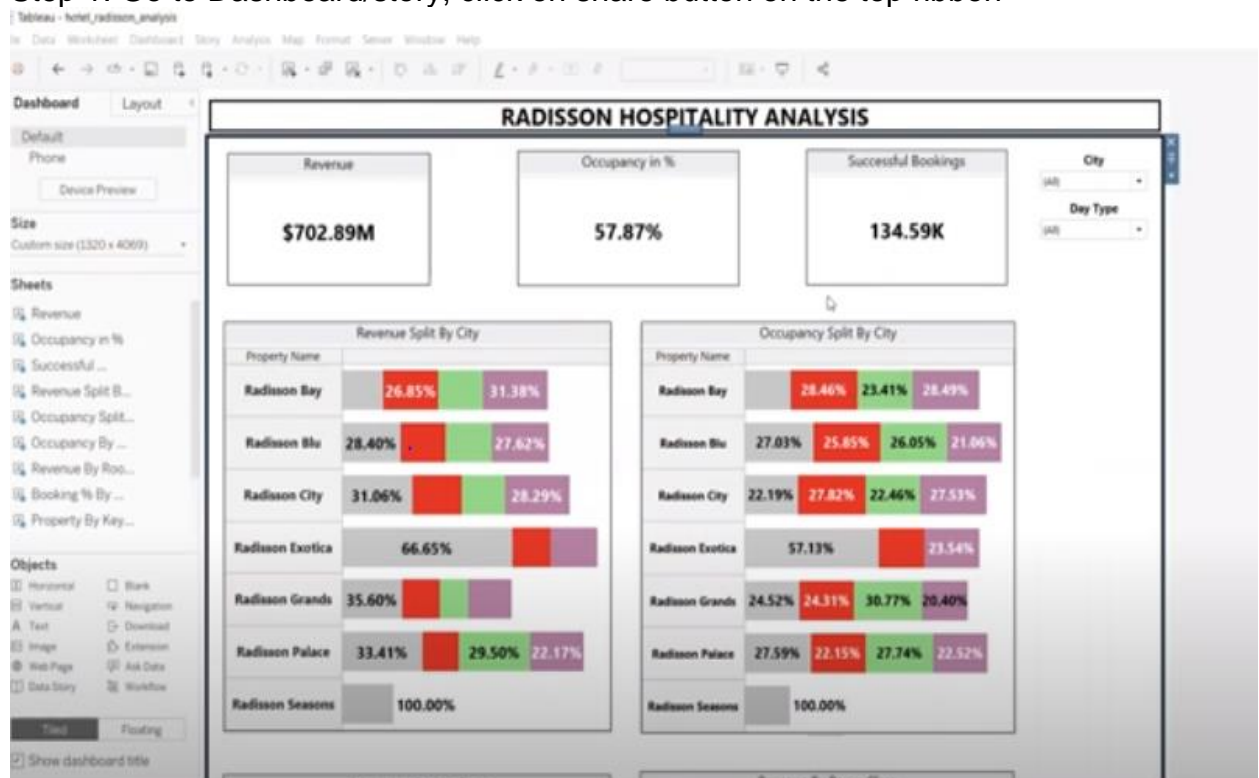
10. Total Successful Bookings
11. Occupancy in %

Milestone 8: Web integration :

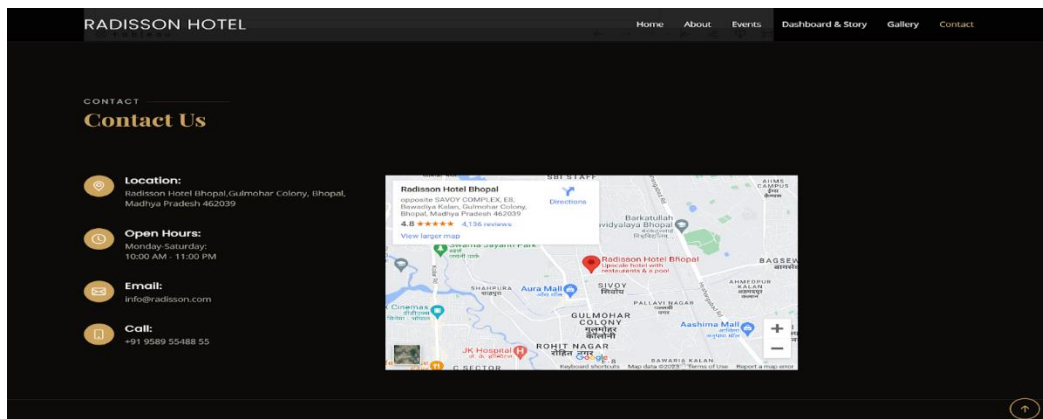
Publishing helps us to track and monitor key performance metrics, to communicate results and progress. help a publisher stay informed, make better decisions, and communicate their performance to others.

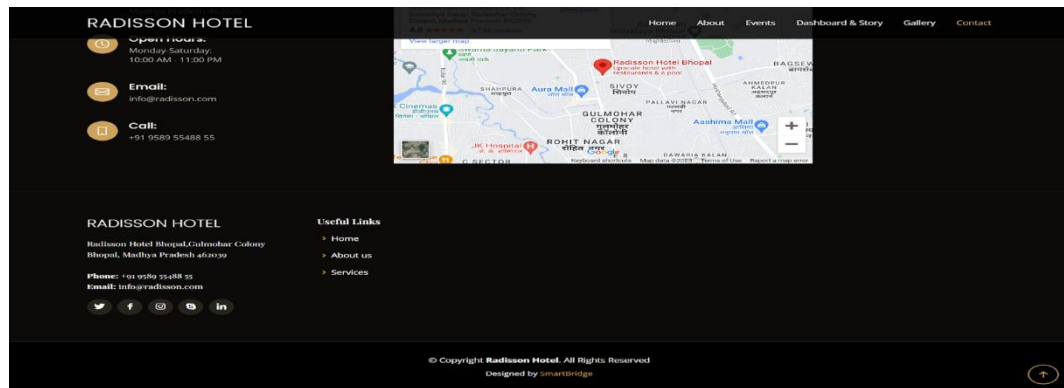
Publishing dashboard and reports to tableau public

Step 1: Go to Dashboard/story, click on share button on the top ribbon



Step 2: Once you click on connect it will ask you for tableau public user name and password





Milestone 9: Project Demonstration & Documentation

Project deliverables to be submitted along with other deliverables

Activity 1: Record Explanation Video For Project End To End Solution

Record explanation Video for project end to end solution

Activity 2: Project Documentation-Step By Step Project Development Procedure

Create document as per the template provided