BESANT TECHNOLOGIES

Zomato Global Market Presence

Name: Arun Kumar Madagoni

Student ID: 25BFT422025

Co-ordinator Name: Shruthisha A

Trainer Name: Rakesh

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Acknowledgement

I would like to express my sincere gratitude to **Besant Technologies** for providing me the opportunity to work on this Power BI project.

My heartfelt thanks to my coordinator **Shruthisha A** for her constant guidance and support. I would also like to thank my trainer **Rakesh** for his valuable mentorship throughout the training.

This project has given me practical exposure to business intelligence tools and the ability to derive insights from real-world data, enhancing both my technical and analytical skills.

– **Arun Kumar Madagoni**

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Concepts Used in Project

1. Power BI Desktop & Data Import

- Used Power BI Desktop to import and combine datasets containing restaurant information from different continents.
- Cleaned and consolidated the data into a single master table called Zomato_Global.
- Managed null values, ensured consistent data types, and verified geographic fields like Country, Latitude, Longitude.

2. Power Query (Data Transformation)

- Applied Power Query Editor to:
  - Remove unnecessary columns
  - Split and clean location fields (Address, Locality, etc.)
  - Created new columns like Continent using DAX SWITCH logic
- Ensured merged data across all regions had a uniform schema

3. Data Modelling

- Built relationships between tables (if additional tables like currency conversion or KPIs were used).
- Managed data cardinality and filter flow to avoid circular dependencies.
- Used calculated columns and measures instead of loading pre-aggregated data.

4. DAX (Data Analysis Expressions)

Used custom DAX measures for calculated insights:

Metric	DAX Logic
Total Restaurants	COUNT(Zomato_Global[Restaurant ID])
Avg Rating	AVERAGE(Zomato_Global[Aggregate rating])
Avg Cost for Two	AVERAGE(Zomato_Global[Average Cost for two])
Table Booking Count	CALCULATE(COUNT(...), filter by "Yes")
Online Delivery Count	Similar logic with conditional filtering

Also created Continent as a derived column using nested SWITCH(TRUE(), …) logic.

5. KPI Cards

- Created KPI cards to highlight:
    - Total number of restaurants
    - Global average cost
    - Global average rating
- Applied background formatting, icons, and labels to enhance visual appeal

6. Bar, Column, Donut & Line Charts

- Used different chart types to present insights:
    - Stacked Column Chart – for comparing Table Booking vs Online Delivery
    - Clustered Column Chart – for average ratings by country
    - Donut Chart – to show restaurant presence by continent
    - Line Chart – to visualize Average Cost trend by country

7. Visual Formatting & Themes

- Applied custom colors, consistent fonts, and layout alignment
- Used data labels, legends, and titles clearly in each visual
- Removed clutter by disabling gridlines, unnecessary axis titles

8. Sorting and Interactivity

- Sorted visuals by:
    - Rating (descending)
    - Cost (descending)
    - Restaurant count
- Added tooltips to display extra context (votes, ratings)
- Used slicers for potential interactivity (e.g., continent filter)

9. Export and Presentation

- Dashboard exported as PDF with clear layout
- Final visuals aligned and optimized for report readability

Source Code (DAX Measures Used)

```
Continent =
SWITCH(
   TRUE(),
   'Zomato_Global'[Country] IN {"India", "UAE", "Qatar",
"Turkey","Phillipines","Singapore","Sri Lanka","Indonesia"}, "Asia",
   'Zomato_Global'[Country] IN {"Australia", "New Zealand"}, "Oceania",
   'Zomato_Global'[Country] IN {"United States", "Canada"}, "North America",
   'Zomato_Global'[Country] IN {"Brazil"}, "South America",
   'Zomato_Global'[Country] IN {"South Africa"}, "Africa",
   'Zomato_Global'[Country] IN {"United Kingdom"}, "Europe",
   "Other"
)
TotalRestaurants = COUNT(Zomato_Global[Restaurant ID])


GlobalAvgCost = AVERAGE(Zomato_Global[Avg_for_Two_In_INR])


GlobalAvgRating = AVERAGE(Zomato_Global[rating])


OnlineDelivery = CALCULATE(COUNTROWS(Zomato_Global),
Zomato_Global[Has Online delivery] = "Yes")


TableBooking =
CALCULATE(COUNT(Zomato_Global[Restaurant ID]),
   Zomato_Global[Has Table booking] = "Yes")
```

Description of Source Code

1. The Continent field was created using a SWITCH DAX expression to map each country to a continent.

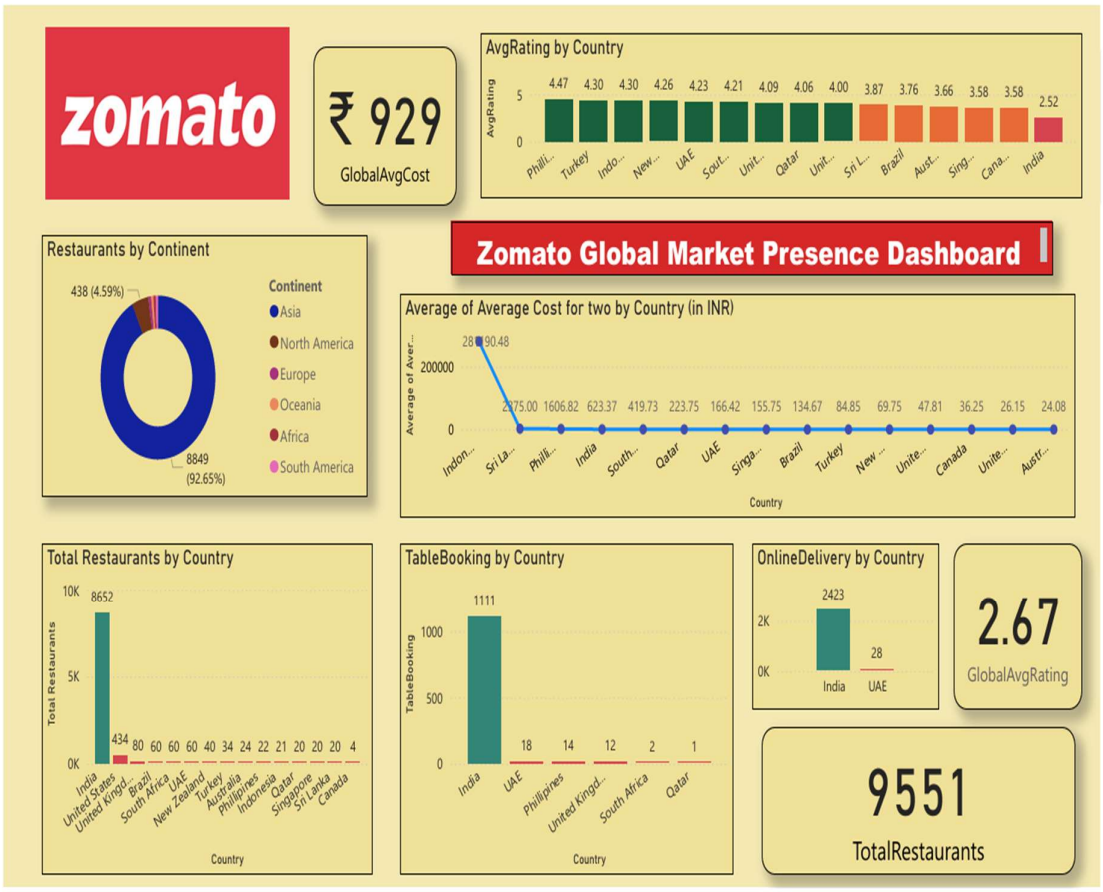
2. Global KPI measures were created to show total restaurants, average cost for two, and average aggregate rating.

3. OnlineDelivery and TableBooking measures used CALCULATE and COUNT to return how many restaurants offer these services.

4. These values were then visualized using card visuals and column charts. Visuals were color-coded for clarity and formatted for label visibility.

5. A combination of DAX, formatting, and layout tools were used to ensure the dashboard is both accurate and visually appealing.

Output



Zomato Global Market Presence Dashboard

Conclusion

This project helped me explore how Business Intelligence tools like Power BI can help visualize global data and draw actionable insights.

Through Zomato's restaurant data, I was able to:

- Analyse global presence at continent and country levels.
- Explore service trends (online delivery, table booking).
- Identify pricing and rating variations across regions.

I learned how to clean, transform, and visualize data efficiently. This hands-on project strengthened my understanding of Power BI, DAX, and data storytelling.

Bibliography

- Zomato Restaurant Dataset (sourced via sample files)
- Power BI Documentation – Microsoft
- SQLBI.com – DAX Function Reference
- Besant Technologies Power BI Training Notes