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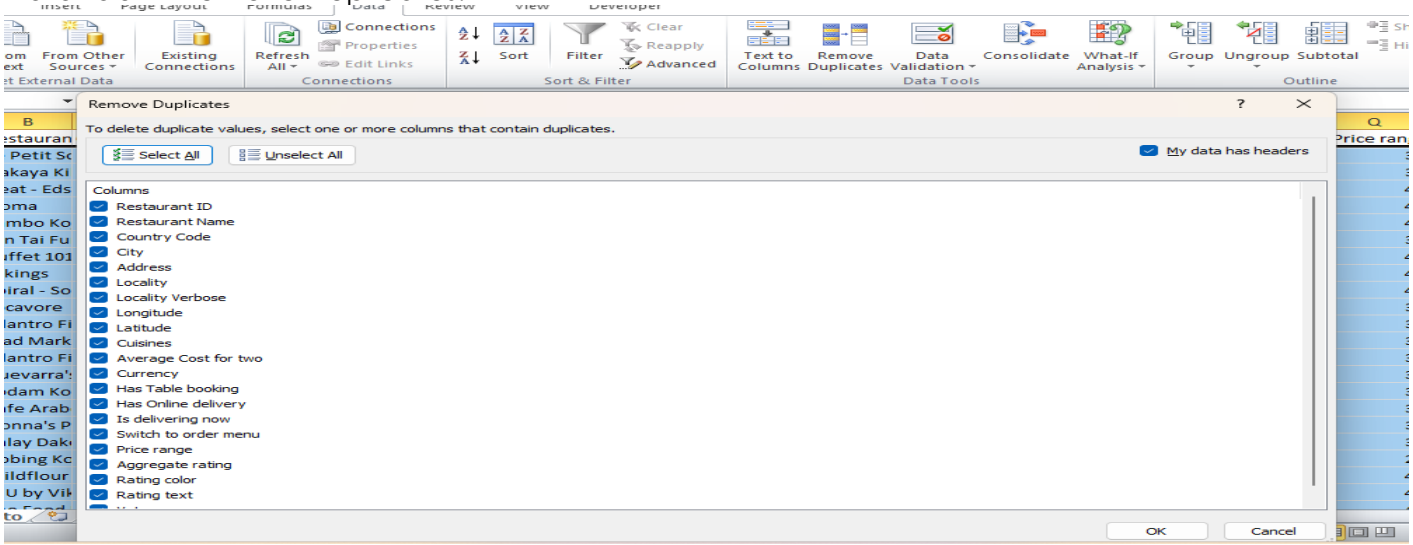
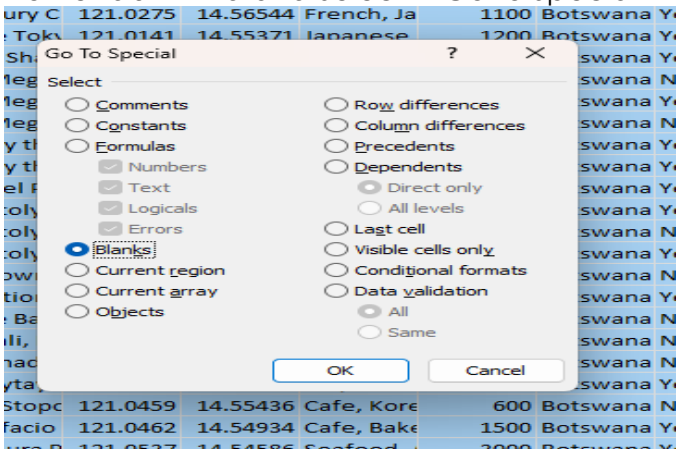
Project Overview:	Zomato, a leading restaurant aggregator and food delivery service, operates across multiple countries, helping users discover restaurants, review ratings, and place orders. With increasing competition in the restaurant and food delivery industry, Zomato aims to enhance its decision-making capabilities through data-driven insights about its restaurant partners, customer preferences, and service performance.
Task 1	**Task 1: Cleaning the Dataset for Accurate Restaurant Listings** • Scenario: Zomato's dataset contains duplicate entries and missing values. Learners will clean the data, ensuring all future analyses is based on reliable information. •Steps: Remove duplicates, handle missing values, and ensure the dataset is prepared for further analysis. •Deliverable: A clean dataset, free from duplicates and missing values, forming a reliable foundation for subsequent tasks.
Solution Task 1	**Remove duplicates** Data tab → Remove Duplicates. 

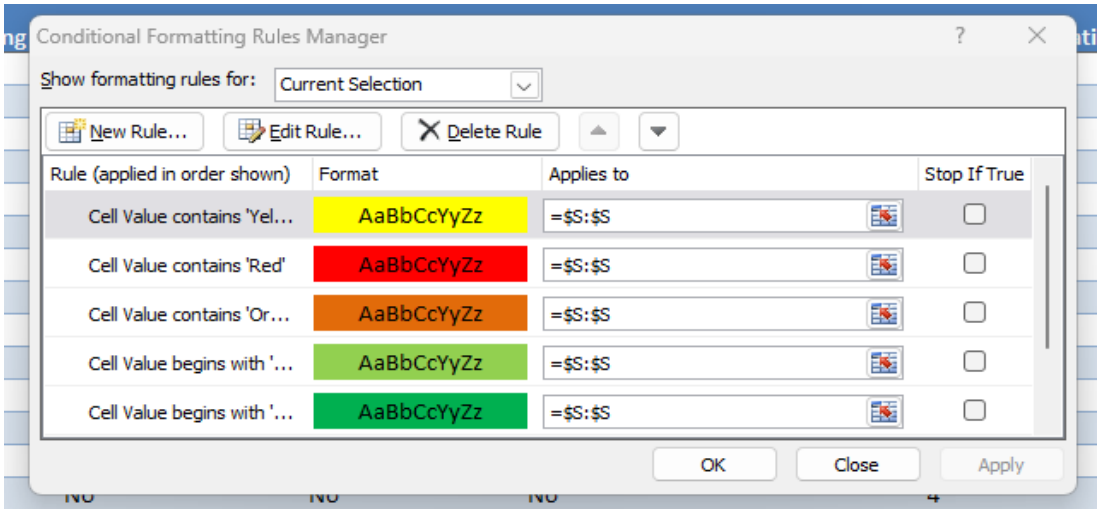
Find and select blank cells

Home tab→ Find and Select→ Go to Special→ Blanks and click OK which highlights all blank cells.



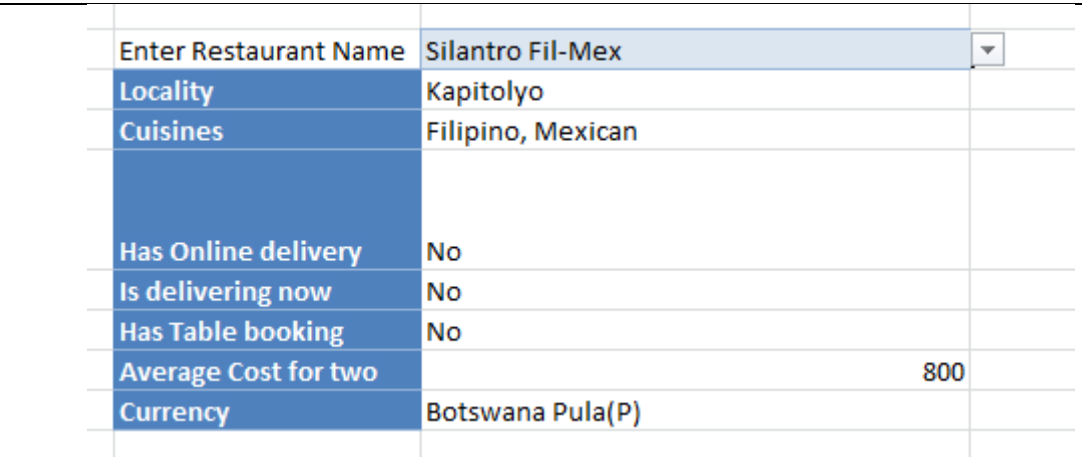
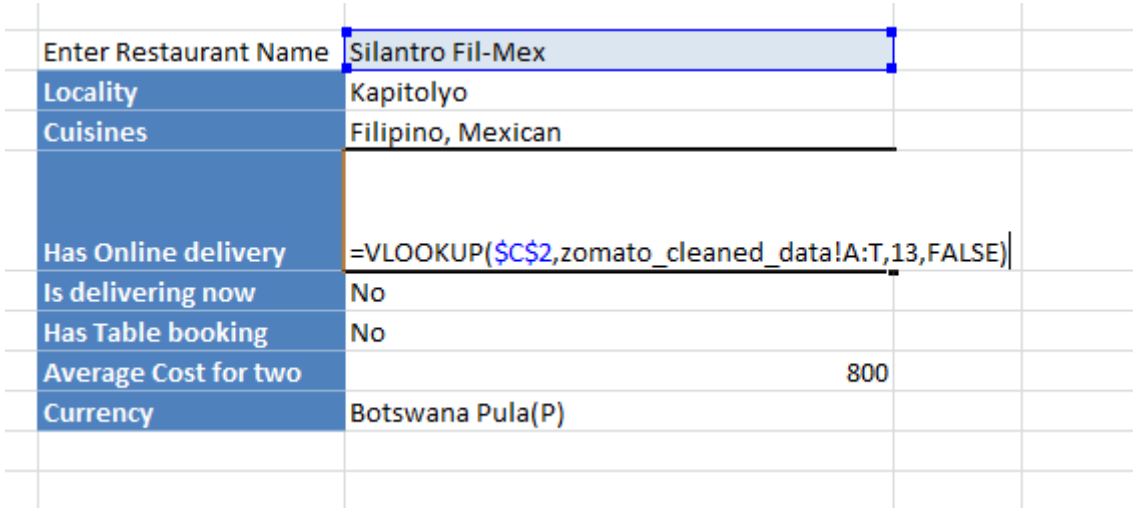
Format data

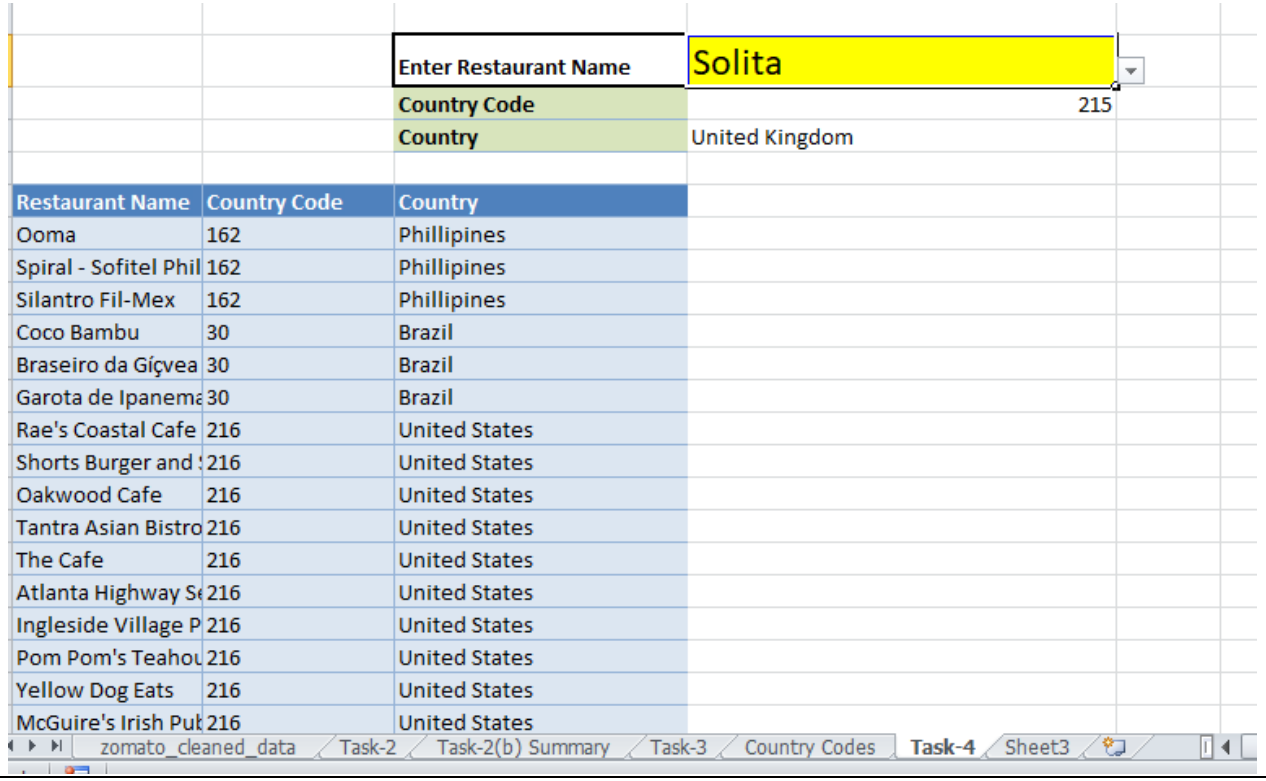
Format the data to as per given formats. Do Freeze Panes to scroll with ease. Do Conditional Formating for Rating.

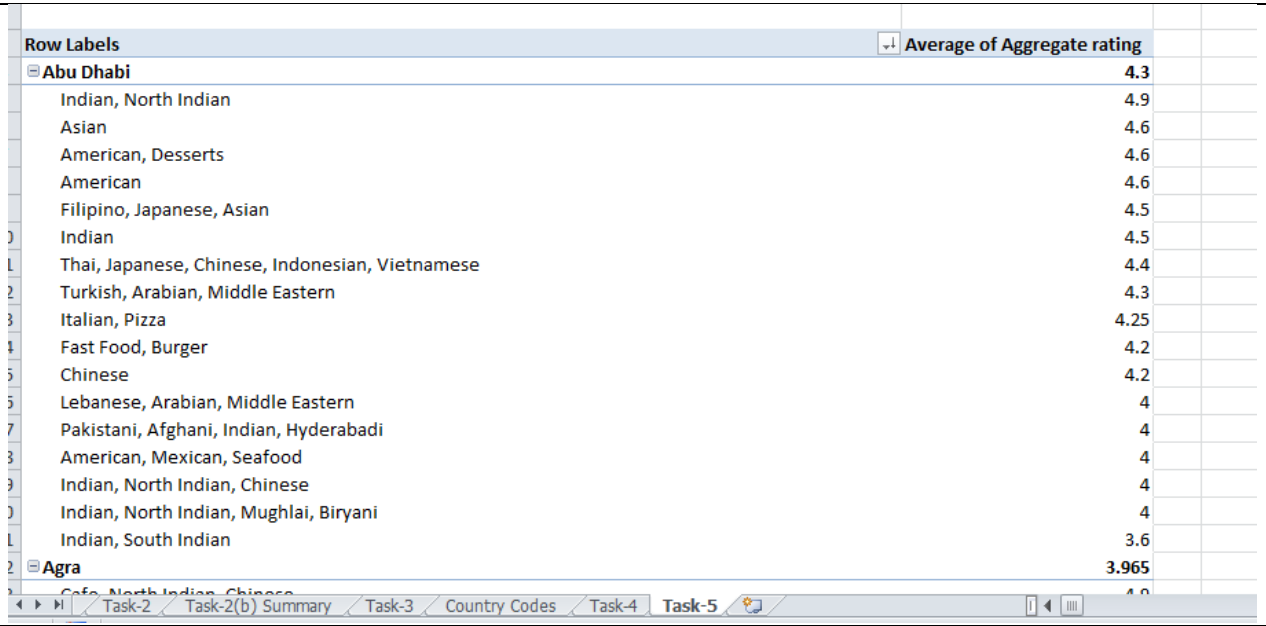
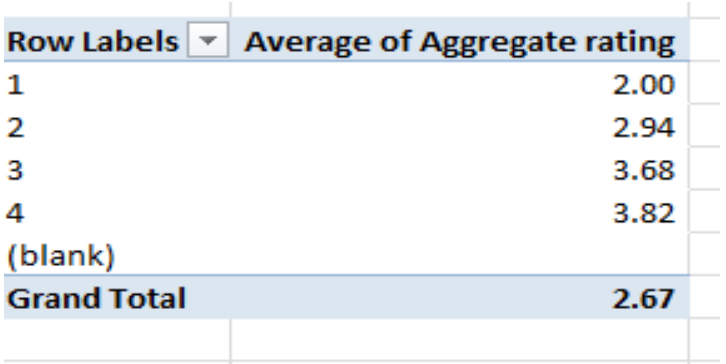


<table>
<tr><td>Task 2</td><td>Task -2 Categorizing Restaurants by Customer Ratings
Scenario: Zomato wants to categorize restaurants based on customer ratings to identify top and underperforming venues.
Steps: Categorize restaurants into rating groups (Excellent, Good, Average, Poor), and summarize performance by rating.
Deliverable: A summary table categorizing restaurant performance based on customer ratings.</td></tr>
<tr><td>Solution Task 2</td><td><table>
<tr><th>Row Labels</th><th>No of Restaurants</th></tr>
<tr><td>Average</td><td>3737</td></tr>
<tr><td>Excellent</td><td>301</td></tr>
<tr><td>Good</td><td>2100</td></tr>
<tr><td>Not rated</td><td>2148</td></tr>
<tr><td>Poor</td><td>186</td></tr>
<tr><td>Very Good</td><td>1079</td></tr>
<tr><td>(blank)</td><td></td></tr>
<tr><td>Grand Total</td><td>9551</td></tr>
</table></td></tr>
<tr><td>Task 3</td><td>Task 3: Verifying Service Availability in Specific Cities (VLOOKUP)
Scenario: Customers search for specific services, such as table booking or online delivery. Zomato needs to verify which restaurants in each city offer these services.
Steps: Use VLOOKUP to match restaurants offering specific services.
Deliverable: A table summarizing service availability across cities, including table booking and online delivery services.</td></tr>
<tr><td>Solution Task 3</td><td>Have Created Drop Down List by using Data Tab → Data Validation→ Settings Allow “List”→ Select Cells of Restaurant names.

Then used V look up to fetch columns as per value of Dropdown. User has to only enter Restaurant Name and other fields are fetched automatically by Vlookup.</td></tr>
</table>

	 
Task 4	**Task 4: Cross-Referencing Country Codes for Restaurant Distribution (XLOOKUP)** Scenario: As Zomato expands globally, learners will cross-reference country codes with country names to visualize geographic restaurant distribution. Steps: Use XLOOKUP to map country codes with country names.

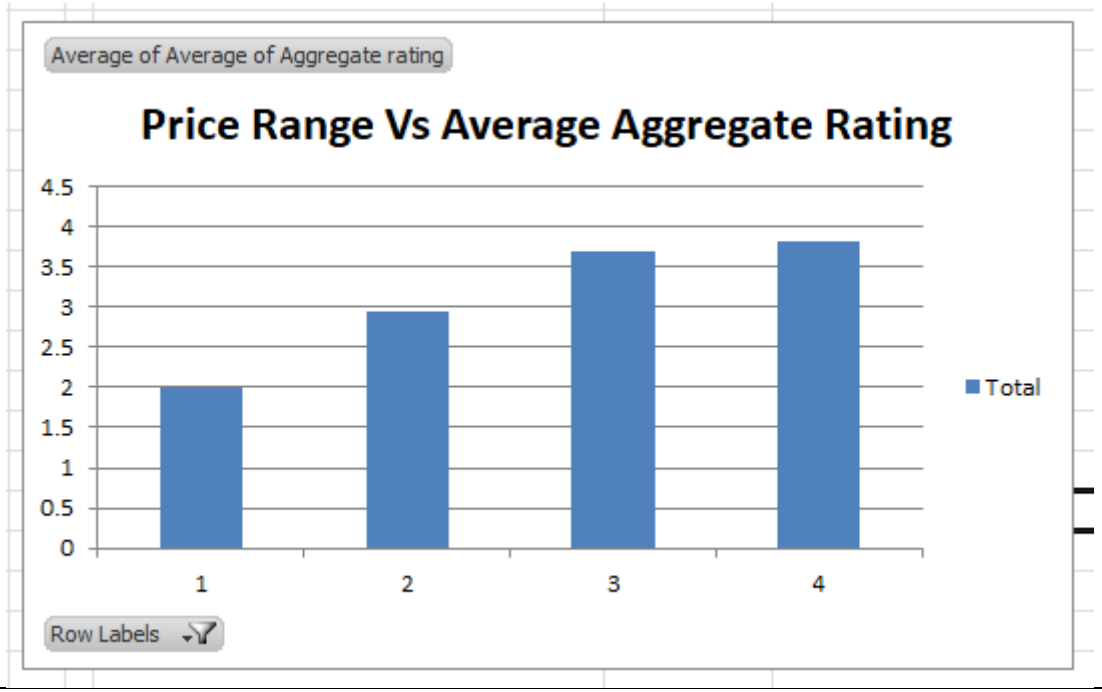
	Deliverable: A dataset showing the country name corresponding to each restaurant.
Solution Task 4	**I have Excel 2010 and hence do not have XLOOKUP but have used VLOOKUP to create dataset and a convenient dropdown menu.** 
Task 5	**Task 5: Analyzing Customer Preferences by Cuisine (INDEX-MATCH)** Scenario: Zomato wants to understand customer preferences by cuisine type, helping optimize restaurant recommendations. Steps: Use INDEX-MATCH to analyze and cross-reference customer preferences by cuisine across cities. Deliverable: A summary of customer preferences by cuisine and city.

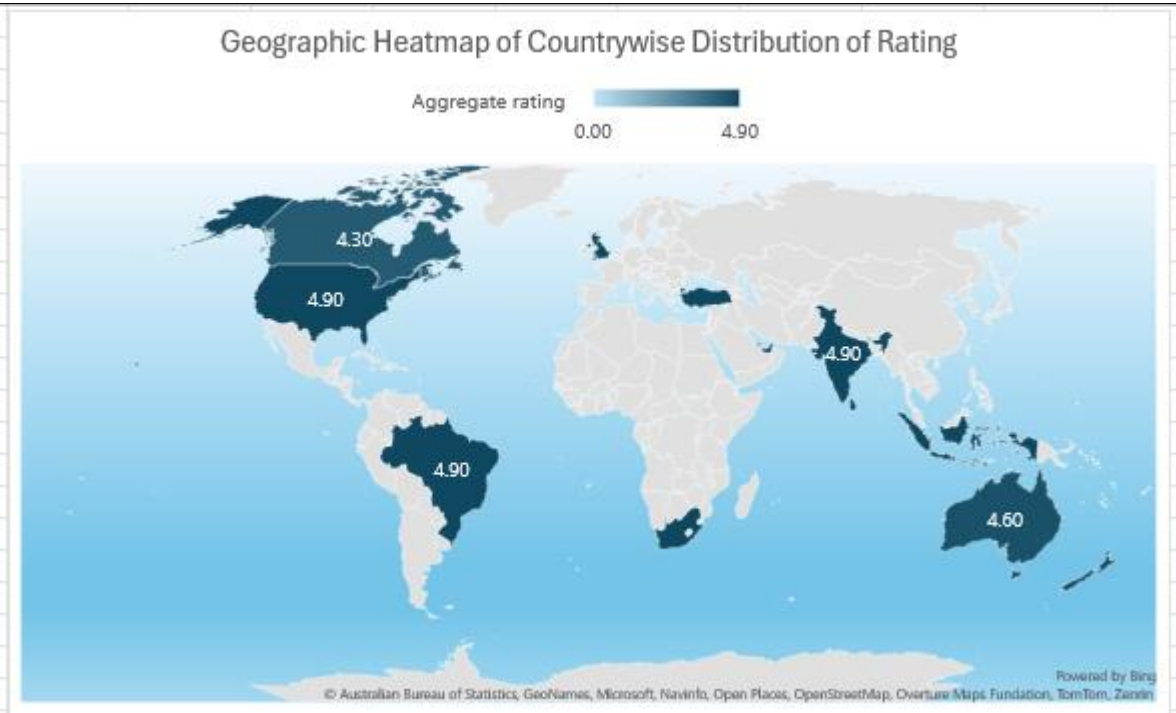
Solution Task 5	
Task 6	**Task 6: Price Range and Ratings Analysis (Pivot Tables)** Scenario: Learners will analyze how restaurant price ranges affect customer satisfaction, providing insight into pricing strategy. Steps: Use Pivot Tables to compare ratings by price range, and visualize using Pivot Charts. Deliverable: A Pivot Table showing restaurant ratings by price range, with accompanying charts.
Solution Task 6	

Row Labels	Average of Aggregate rating
Abu Dhabi	**4.3**
Indian, North Indian	4.9
Asian	4.6
American, Desserts	4.6
American	4.6
Filipino, Japanese, Asian	4.5
Indian	4.5
Thai, Japanese, Chinese, Indonesian, Vietnamese	4.4
Turkish, Arabian, Middle Eastern	4.3
Italian, Pizza	4.25
Fast Food, Burger	4.2
Chinese	4.2
Lebanese, Arabian, Middle Eastern	4
Pakistani, Afghani, Indian, Hyderabadi	4
American, Mexican, Seafood	4
Indian, North Indian, Chinese	4
Indian, North Indian, Mughlai, Biryani	4
Indian, South Indian	3.6
Agra	**3.965**

Task-2 | Task-2(b) Summary | Task-3 | Country Codes | Task-4 | Task-5

Row Labels	Average of Aggregate rating
1	2.00
2	2.94
3	3.68
4	3.82
(blank)	
Grand Total	**2.67**

	As seen below as Price Range Increases (from 1-low cost to 4-high end) Average Aggregate Rating (from 2 to 3.82) also increases. 
Task 7	**Task 7: Geographic Heatmap of Restaurant Density and Ratings** Scenario: Zomato's leadership team needs to understand how restaurant density and customer ratings are distributed geographically. Steps: Use geographic data to create a heatmap showing restaurant density and customer satisfaction by city. Deliverable: A geographic heatmap visualizing restaurant distribution and performance across cities.
Solution Task 7	



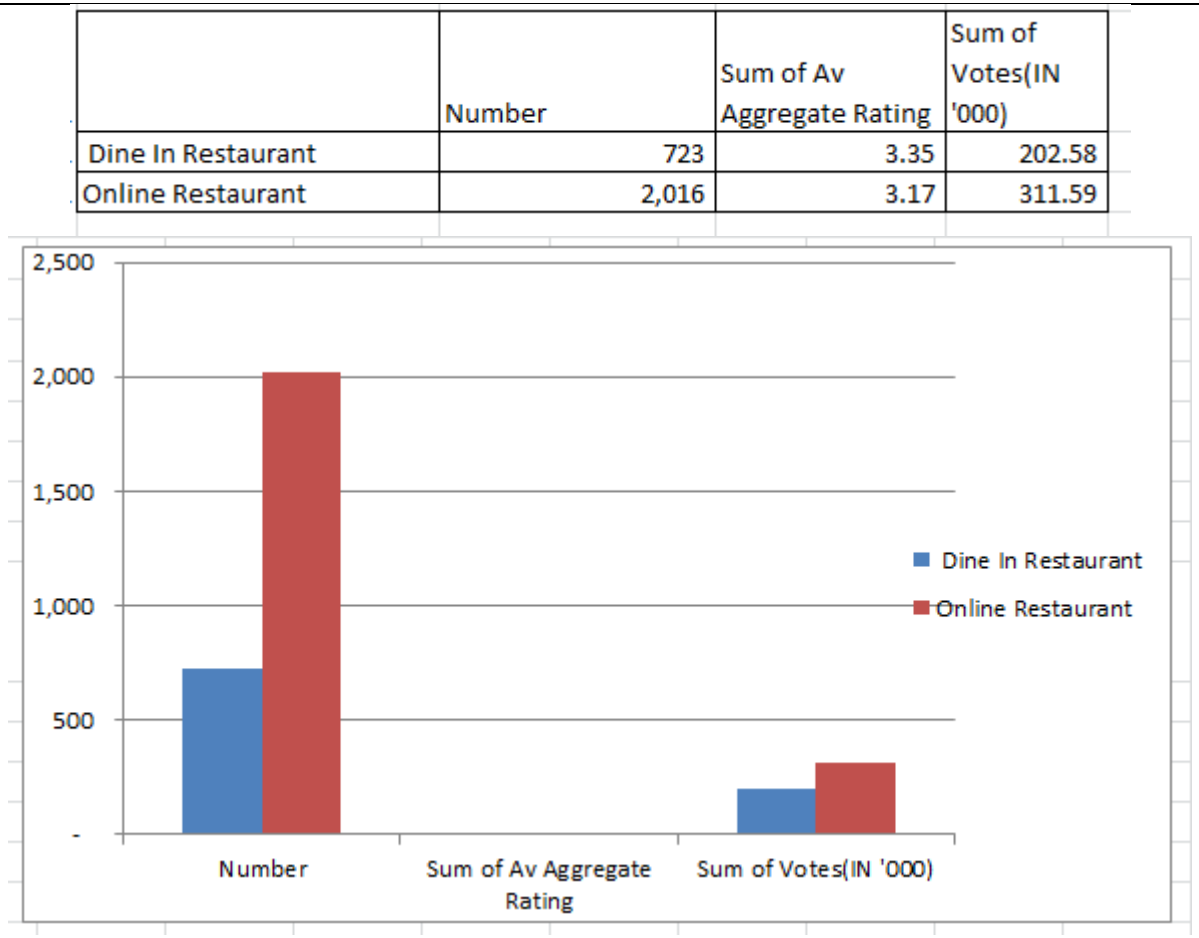
Task 8

Task 8: Performance Comparison by Service Type (Online Delivery vs. Dine-In Only)
Scenario: Zomato wants to compare the performance of restaurants offering online delivery with those offering dine-in only.
Steps: Analyze ratings and votes for online delivery versus dine-in restaurants.
Deliverable: A comparison of restaurant performance by service type, highlighting how online delivery affects customer engagement.

Solution Task 8

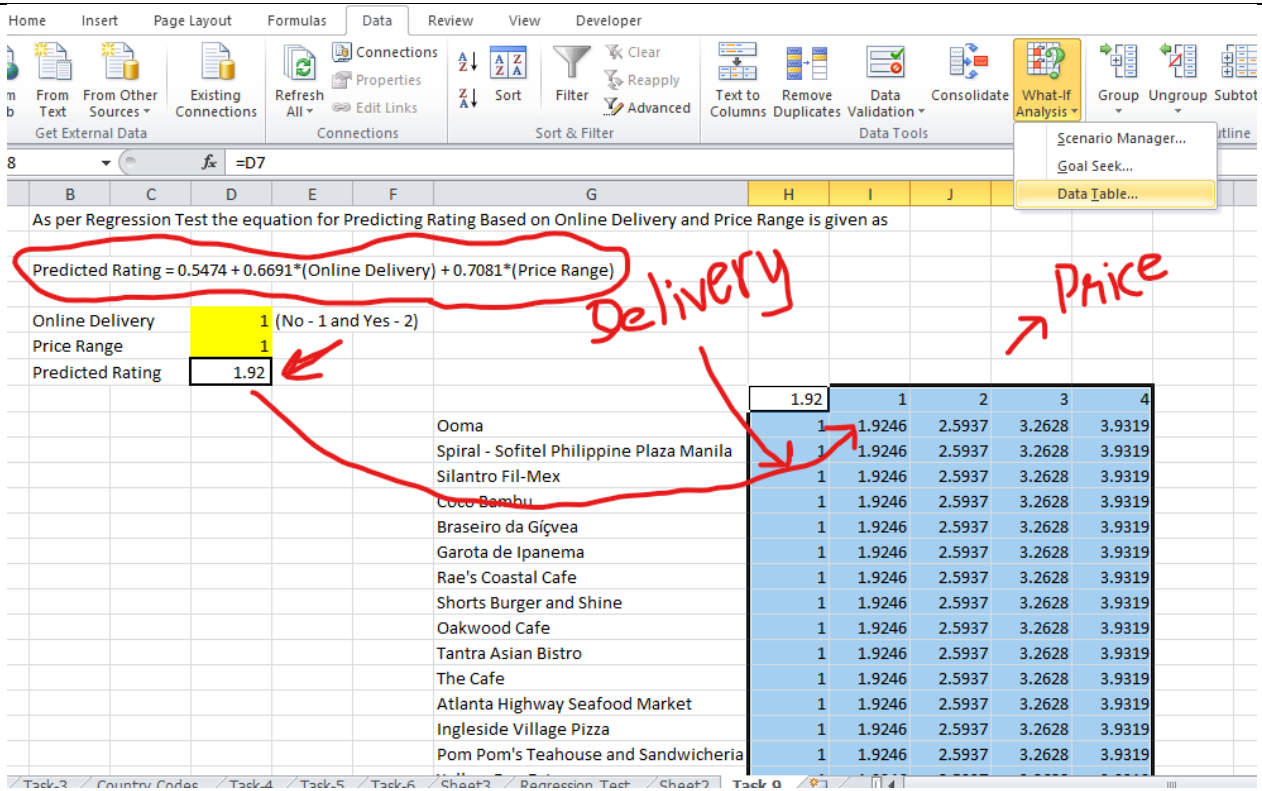
Have created a Pivot Table with Filtering used to get Total Restaurant Number, Avg Rating and Sum of Votes.

Has Table booking	No		PLEASE CHOOSE-->	For Dine In Restaurant	Has Table booking	Yes
Has Online delivery	Yes				Has Online delivery	No
Row Labels	**Average of Aggregate rating**	**Sum of Votes**	**Count of Restaurant ID**	For Online Restaurant	Has Table booking	No
All Day 99	0	3	1		Has Online delivery	Yes
Bhashi Caterers	0	3	1			
44 Grills	0	0	1			
Chakhna	0	3	1			
Chawla Chik Inn	0	0	1			
Fire n Ice	0	1	1			

	
Task 9	**Task 9: What-If Analysis for Business Growth** Scenario: Zomato wants to forecast how changes, such as expanding online delivery or adjusting price ranges, might impact customer satisfaction. Steps: Use What-If Analysis (Scenario Manager or Goal Seek) to simulate different business scenarios. Deliverable: A report detailing the potential impact of changes in service offerings or price on customer satisfaction and engagement.

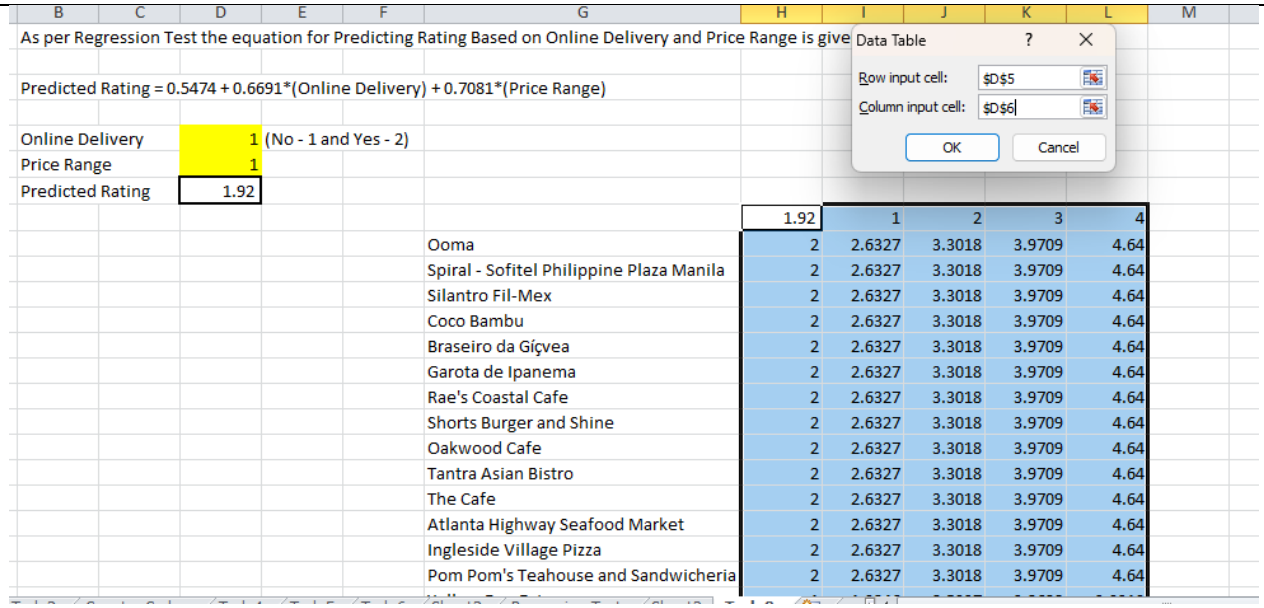
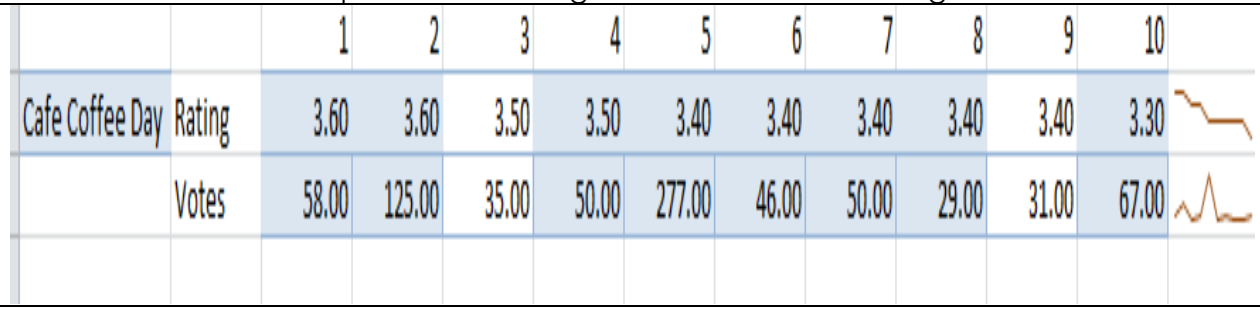
	Number	Sum of Av Aggregate Rating	Sum of Votes(IN '000)
Dine In Restaurant	723	3.35	202.58
Online Restaurant	2,016	3.17	311.59

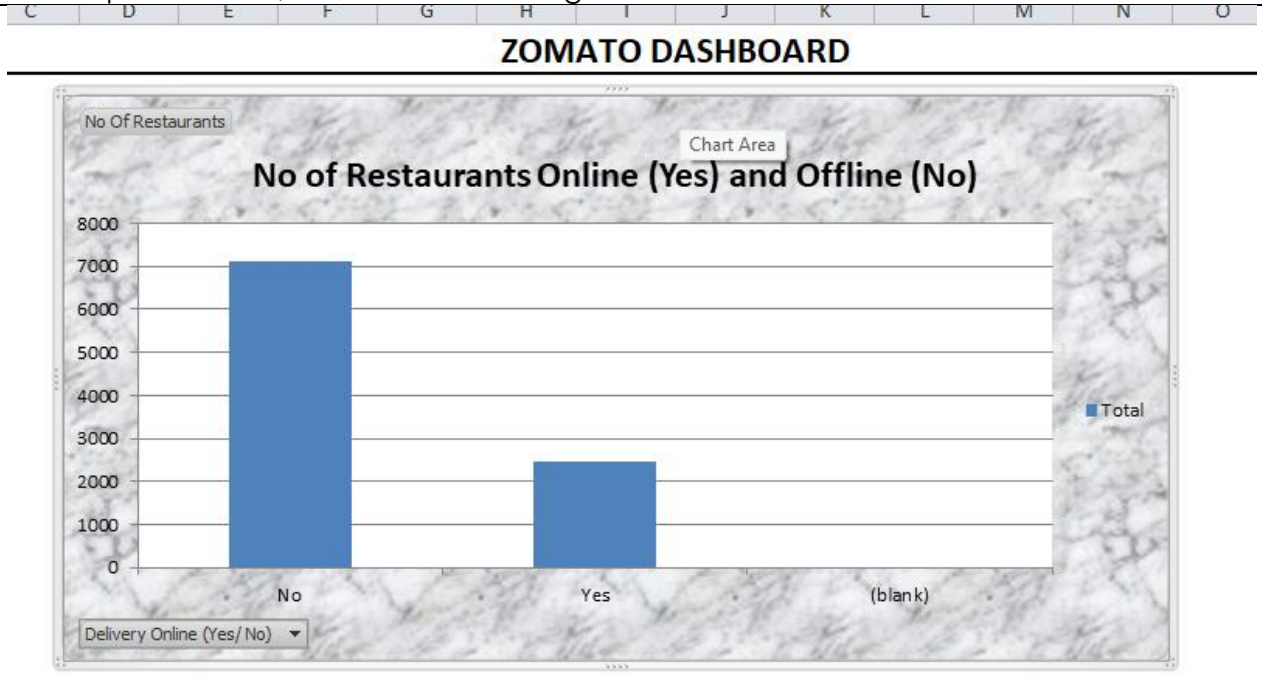
Solution Task 9

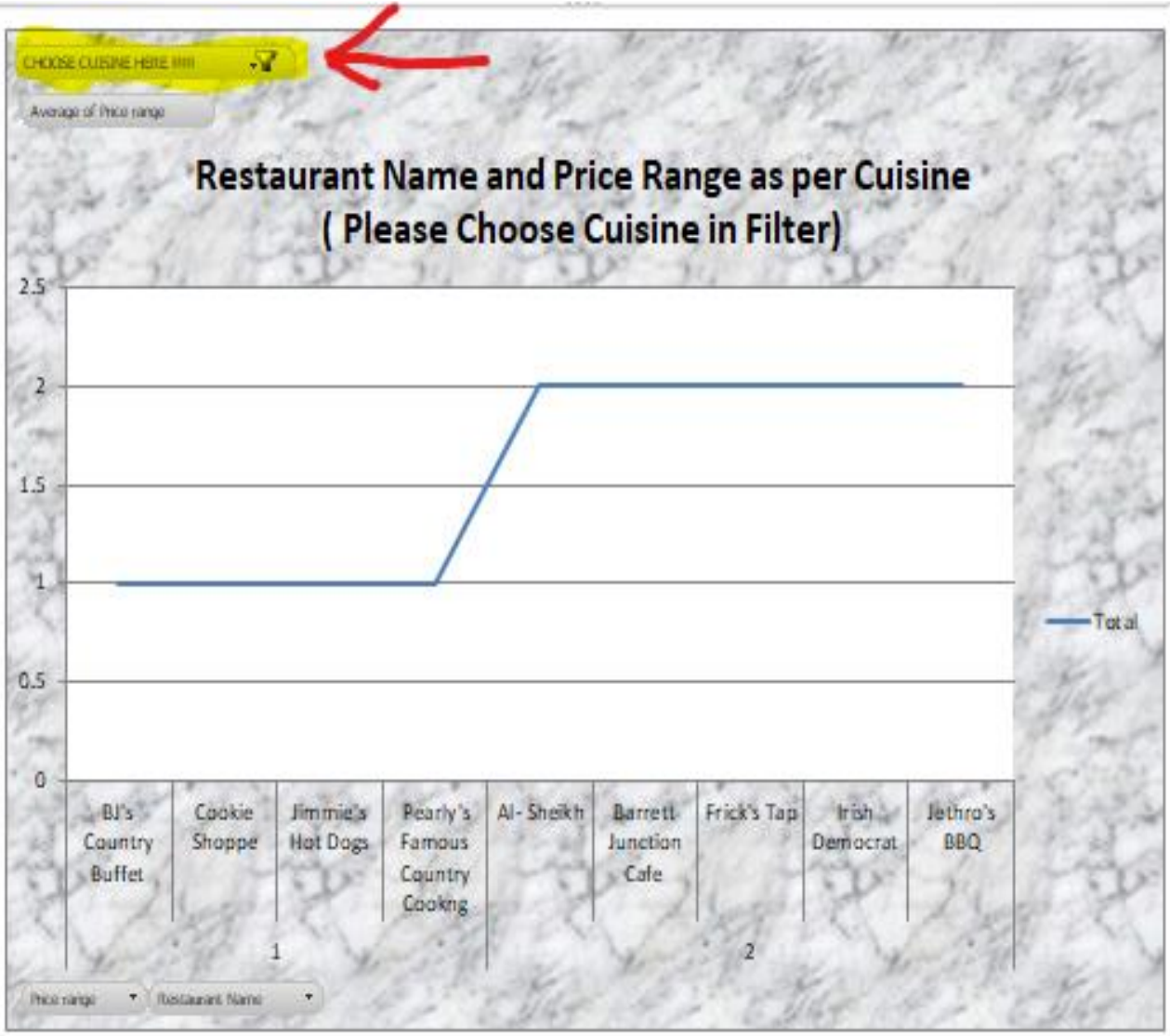


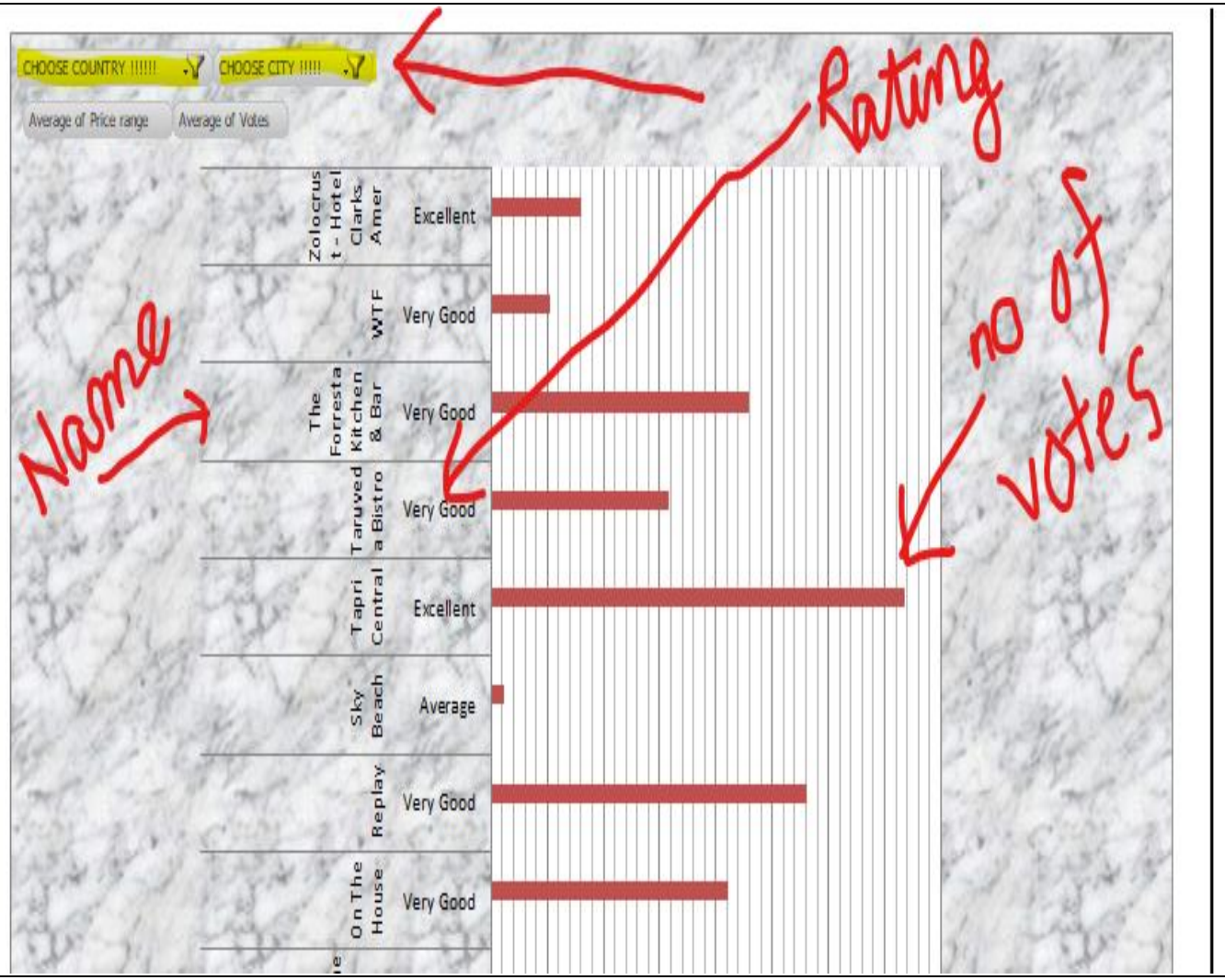
Using Regression analysis , we have found the equation predicting the rating for a particular restaurant based on Price Range (1 to 4) and Online Delivery presence (No -1 and Yes is 2).

We used What-if analysis to create Data Table having various scenario of Price Range (Column) and Online Presence(Row). We have found out that **Increased Online Presence increases the rating**. **Further Increased Price Range also increases the rating**. Below is the screenshot if every restaurant is made online(by changing to 2-yes) and its rating increases.

<table>
<tr><td></td><td> 
</td></tr>
<tr><td>Task 10</td><td>Task 10: Adding Sparklines for Visualizing Trends
Scenario: Zomato needs to visualize trends in metrics like ratings and votes. Sparklines allow learners to visualize trends without needing full charts.
Steps: Add Sparklines to the dataset to visualize trends in restaurant performance.
Deliverable: Enhanced tables with Sparklines showing trends in customer ratings and votes.</td></tr>
<tr><td>Solution Task 10</td><td> 
</td></tr>
<tr><td>Task 11</td><td>Final Task: Creating a Comprehensive Interactive Dashboard</td></tr>
</table>

	Scenario: The final task brings together all the insights into an interactive dashboard for Zomato's leadership team. The dashboard will allow dynamic exploration of key metrics such as price range, location, service availability, cuisine preferences, and customer ratings.
Solution Task 11	


CHOOSE CUISINE HERE !!!!
Average of Price range
Restaurant Name and Price Range as per Cuisine
(Please Choose Cuisine in Filter)
2.5
2
1.5
1
0.5
0
BJ's Country Buffet
Cookie Shoppe
Jimmie's Hot Dogs
Pearly's Famous Country Cooking
Al- Sheikh
Barrett Junction Cafe
Frick's Tap
Irish Democrat
Jethro's BBQ
1
2
Total
Price range
Restaurant Name



Project Submission Guidelines:

GitHub repository - https://github.com/Shantanuneo/gradedexcelproject.git