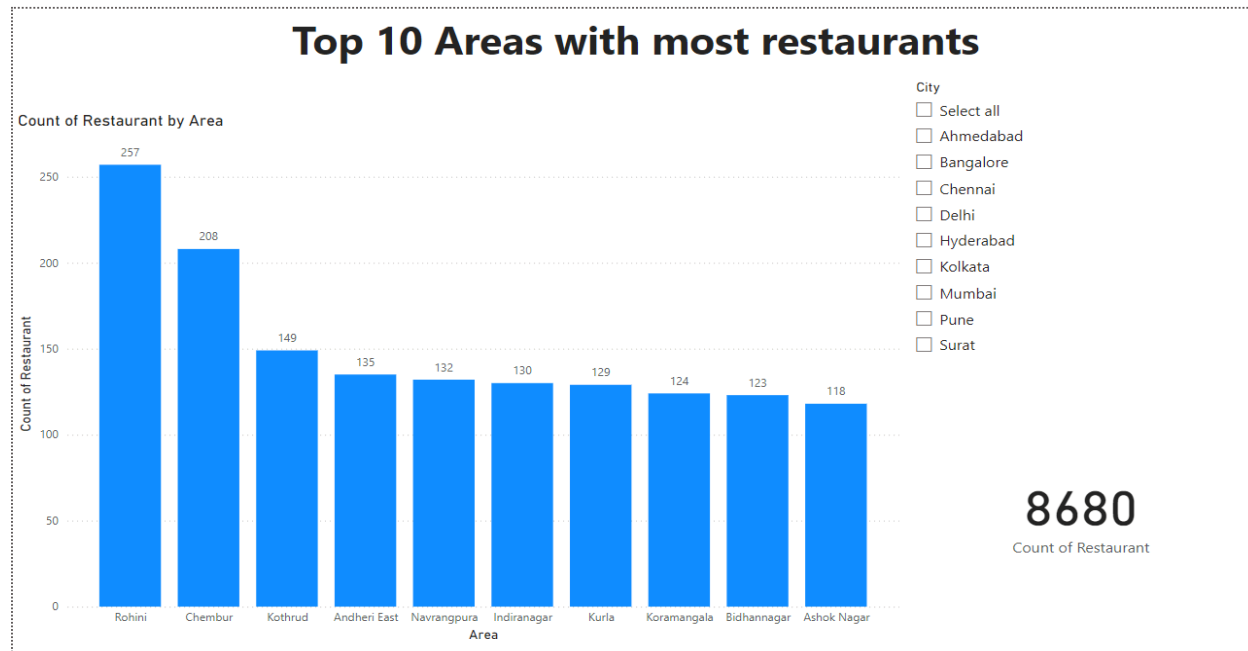


RESTAURANT ANALYSIS OF SWIGGY

Task 1: Top 10 Areas with Most Restaurants

- **Objective:** Identify the top 10 areas with the highest number of restaurants.



Based on the bar chart provided, the top 10 areas with the highest number of restaurants are:

1. **Rohini 257**
2. **Chembur 208**
3. **Kothrud 149**
4. **Andheri East 135**
5. **Navrangpura 132**
6. **Indiranagar 130**
7. **Kunta 129**
8. **Koramangala 124**
9. **Bidhannagar 123**
10. **Ashok Nagar 118**

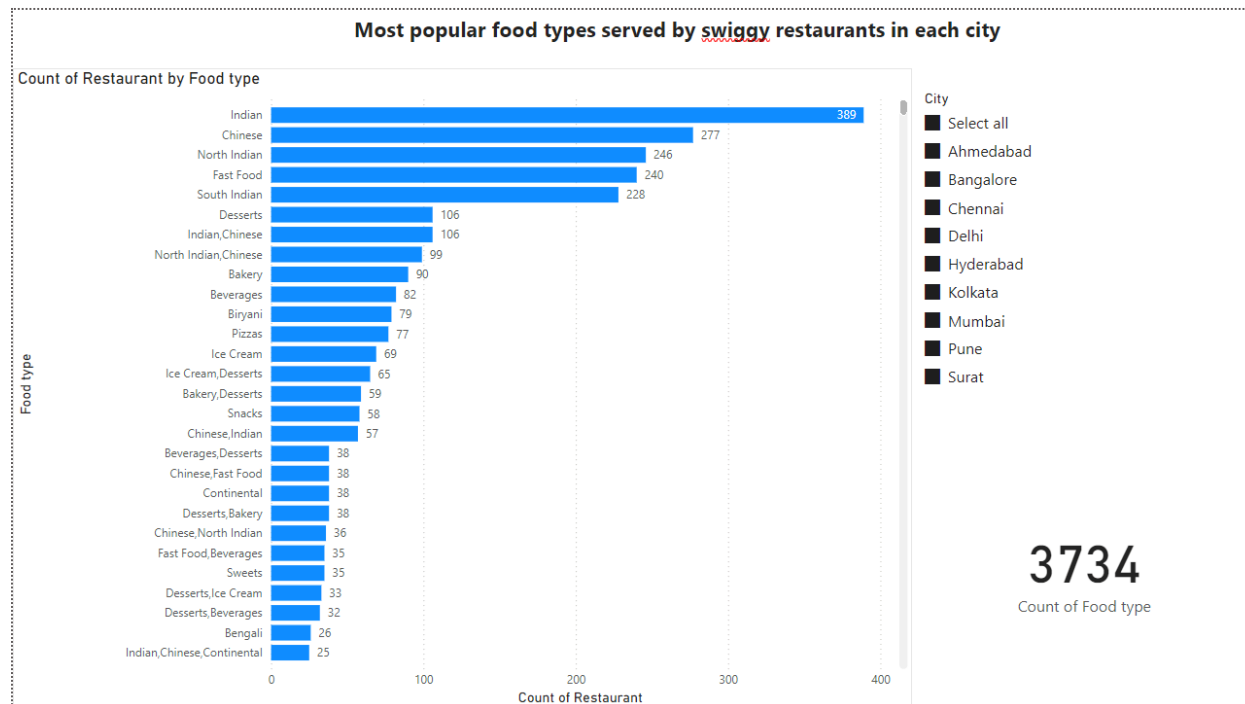
Insights:

1. **Concentration of Restaurants:** Rohini and Chembur have a significantly higher number of restaurants compared to other areas. This could indicate these areas have a large customer base or are central locations in their respective cities.
2. **Potential for Market Saturation:** The high number of restaurants in these areas may suggest a competitive market. Businesses in these regions may need to focus on differentiation strategies such as unique menu offerings, superior service, or niche targeting to stand out.
3. **Opportunity in Less Saturated Areas:** Areas like Ashok Nagar and Bidhanagar, while still in the top 10, have fewer restaurants compared to the top-ranked areas. These regions might offer opportunities for new entrants or existing businesses looking to expand with potentially less competition.
4. **Diverse Urban Centers:** The list includes areas from multiple cities, indicating a wide urban distribution of restaurant availability. This diversity suggests that consumer demand for dining options is spread across various urban centers, not concentrated in a single city.
5. **Strategic Expansion:** For businesses looking to expand, targeting high-restaurant-density areas could be advantageous for visibility and access to a ready customer base, but they should also be prepared for intense competition. Alternatively, focusing on moderately populated areas might provide growth opportunities with lower competition barriers.

Overall, this data can be used to inform location strategies, market entry decisions, and competitive positioning in the restaurant industry.

Task 2: Most Popular Food Types Served by Swiggy Restaurants in Each City

- **Objective:** Determine the most popular food types served in each city.



The bar chart displays the count of restaurants by food type, indicating the popularity of different cuisines served by Swiggy restaurants across various cities. Here are the key insights:

Key Insights:

- Indian Cuisine:**
 - Indian cuisine leads by a significant margin, highlighting its popularity and dominance across the cities served by Swiggy.
- Chinese Cuisine:**
 - Chinese food is the second most popular cuisine, showcasing its widespread appeal and the integration of Chinese dishes into the regular dining habits of many customers.
- Regional Specialties:**
 - **North Indian** and **South Indian** cuisines are also highly popular, This suggests that local flavours and traditional dishes remain a strong draw for customers.
- Fast Food and Desserts:**
 - Fast food and desserts are notable categories, suggesting a demand for quick, convenient meals and sweet treats. This may indicate a trend towards casual dining and indulgence.
- Combination of Cuisines:**
 - The chart shows combinations like "Indian, Chinese" and "North Indian, Chinese," suggesting that restaurants often offer a mix of popular cuisines to cater to diverse tastes and preferences. This strategy can attract a broader customer base.

6. **Niche Categories:**

- Categories like **Bakery**, **Beverages**, **Biryani**, **Pizzas**, and **Ice Cream** indicate specific food types that have significant demand. These niches can provide opportunities for specialized restaurants or menu items.

Strategic Implications:

1. **Menu Diversification:**

- Restaurants may benefit from diversifying their menus to include popular cuisines like Indian and Chinese, while also offering niche items to differentiate themselves from competitors.

2. **Targeted Marketing:**

- Given the popularity of certain cuisines, targeted marketing campaigns can be designed to highlight these offerings. For instance, promoting unique Indian regional dishes or fusion items can attract customers interested in authentic or innovative flavors.

3. **Expansion Opportunities:**

- For businesses looking to expand, focusing on popular food types with high demand, such as Indian and Chinese cuisines, can be a safe bet. At the same time, exploring underrepresented niches in specific areas might offer less competition and a unique market position.

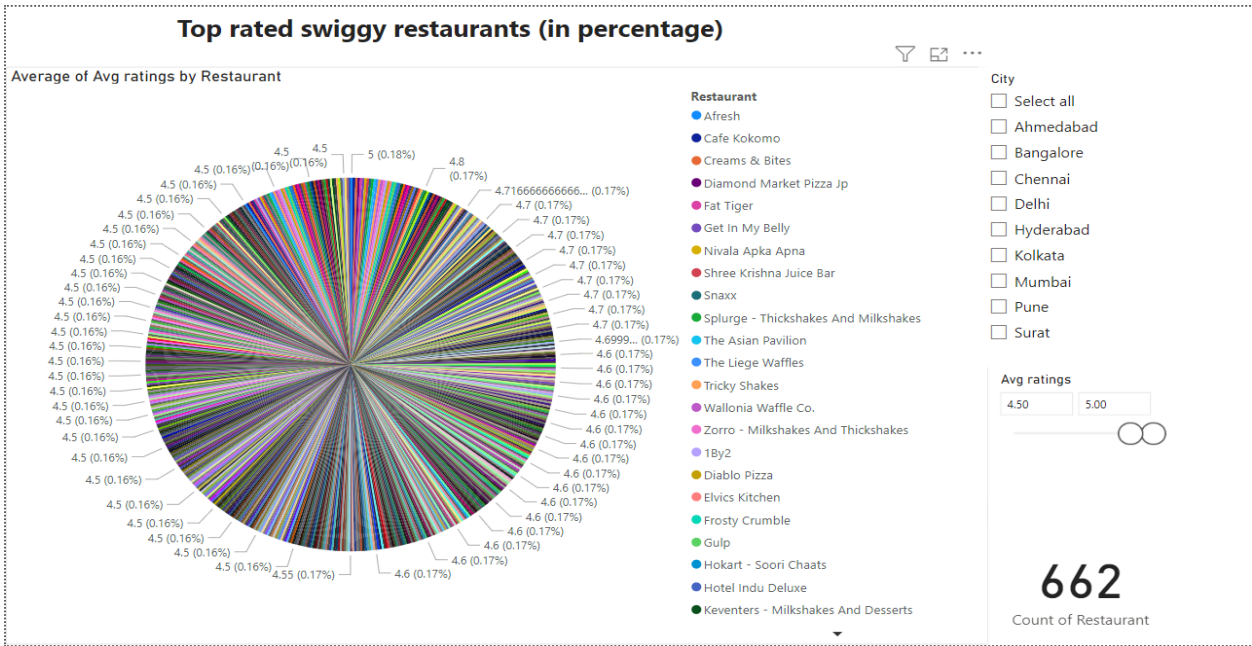
4. **Customer Preferences:**

- Understanding the popularity of desserts and fast food can help in menu planning and promotions, especially in urban areas with a younger demographic or a preference for quick meals.

These insights provide a foundation for strategic planning, menu development, and marketing initiatives for restaurants and food delivery platforms.

Task 3: Top Rated Swiggy Restaurants (In Percentage)

- **Objective:** Find the percentage of top-rated restaurants (e.g., those with an average rating above 4.5).



The pie chart provides an overview of average ratings for various restaurants listed on Swiggy. Here's a detailed analysis and insights based on the provided data:

Key Observations:

High Ratings Across Restaurants:

All listed restaurants seem to have very high average ratings, predominantly 4.8, 4.9, and 5.

The ratings distribution shows a concentration in the 4.8 to 5 range, indicating high customer satisfaction.

Top Rated Restaurants:

Restaurants with a rating of 5 include: Afresh, Fat Tiger, Nasi And Mee, and others.

The restaurants with an average rating of 4.9 include Gulp, Hokart, Keventers, and others.

A significant number of restaurants have a rating of 4.8.

Percentage Distribution:

Restaurants with a 5 rating constitute approximately 1.71% each.

Restaurants with a 4.9 rating constitute approximately 1.67% each.

Restaurants with a 4.8 rating constitute about 1.64% each.

Insights:

High Customer Satisfaction:

The high average ratings suggest that customers are generally very satisfied with these restaurants.

This could be due to excellent service, quality food, and overall positive dining experiences.

Competitive Environment:

The close range of average ratings (4.8 to 5) indicates a competitive environment where restaurants strive to maintain high standards.

Importance of Maintaining Quality:

To remain competitive and retain customer satisfaction, it is crucial for these restaurants to consistently maintain their service and food quality.

Small differences in ratings (e.g., from 4.8 to 5) can significantly impact customer choice.

Potential for Marketing:

Restaurants with a perfect rating (5) can leverage this in their marketing strategies to attract more customers.

Highlighting high customer satisfaction can be a key selling point.

Conclusion:

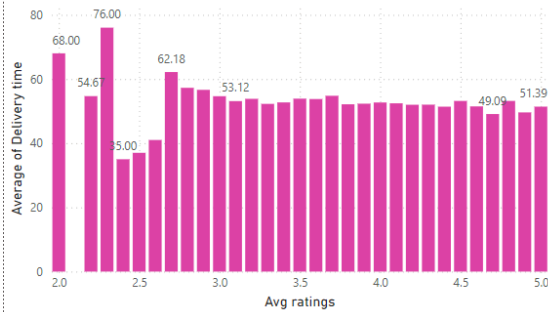
The data indicates a highly competitive market with restaurants maintaining very high standards to achieve and sustain customer satisfaction. Restaurants with ratings above 4.5 are well-regarded by customers, and maintaining such standards will be crucial for their continued success.

Task 4: Correlation of Factors Affecting Average Rating

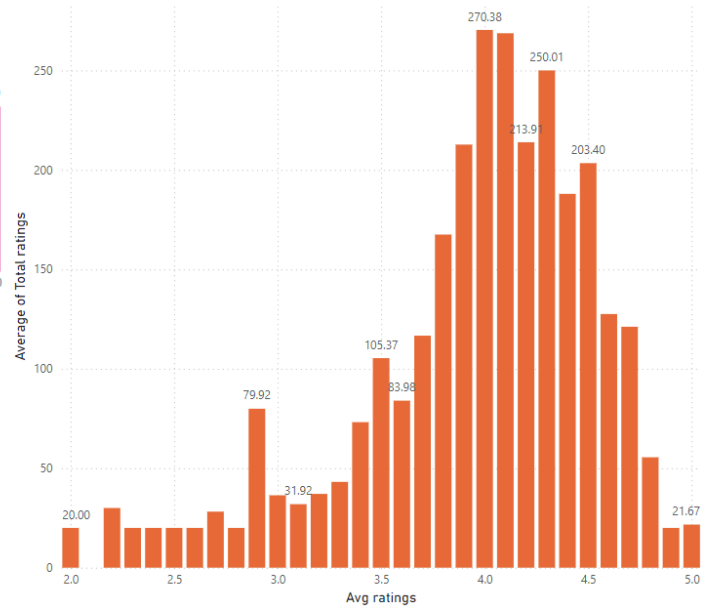
- **Objective:** Identify correlations between different factors (e.g., price, total ratings, delivery time) and average rating.

Correlation of factors affecting average rating

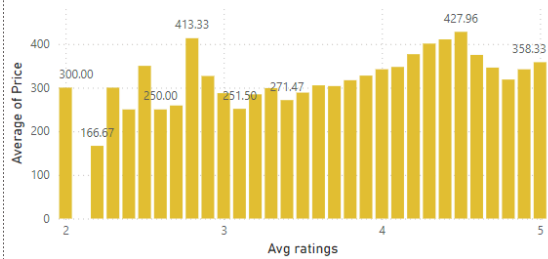
Average of Delivery time by Avg ratings



Average of Total ratings by Avg ratings



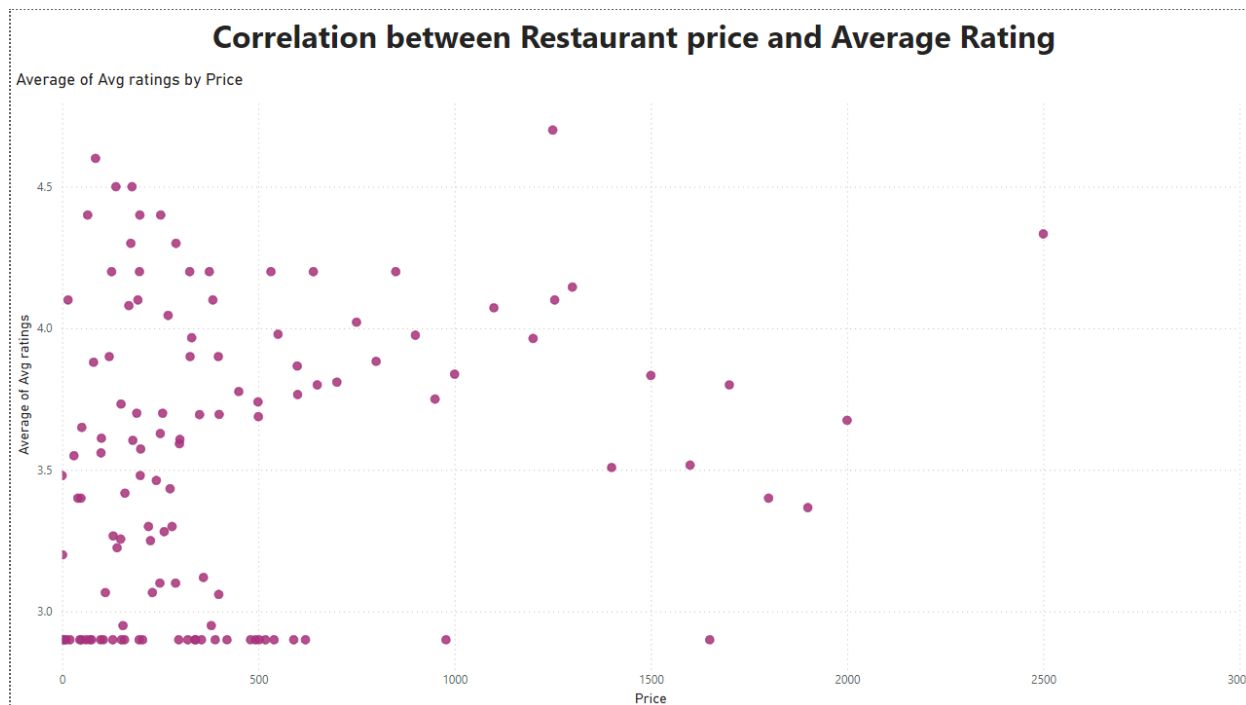
Average of Price by Avg ratings



These insights indicate that there is no strong correlation between any pair of these factors, suggesting that they may not be directly influencing each other in a significant way

Task 5: Correlation Between Restaurant Price and Average Rating

- **Objective:** Analyze the relationship between restaurant price and average rating.



The data contains information about various restaurants, including their price, average rating, total ratings, food type, and delivery time. To analyze the relationship between restaurant price and average rating, let's focus on the 'Price' and 'Avg ratings' columns.

Here are the steps we'll follow for the analysis:

Descriptive Statistics: Summarize the main characteristics of the data.

Scatter Plot: Visualize the relationship between price and average rating.

Correlation Coefficient: Quantify the strength and direction of the relationship.

Insights: Provide insights based on the analysis.

Let's start with descriptive statistics and then move on to visualization and correlation analysis.

Descriptive Statistics

Price:

Mean: 348.44

Standard Deviation: 230.94

Minimum: 0

25th Percentile: 200

Median: 300

75th Percentile: 400

Maximum: 2500

Average Rating:

Mean: 3.66

Standard Deviation: 0.65

Minimum: 2.0

25th Percentile: 2.9

Median: 3.9

75th Percentile: 4.2

Maximum: 5.0

Insights:

Most restaurants have a price range between 200 and 400.

The average rating tends to be around 3.9, with most ratings falling between 2.9 and 4.2.

Next, let's visualize the relationship between price and average rating using a scatter plot and calculate the correlation coefficient.

Scatter Plot: Price vs Average Ratings

The scatter plot shows the distribution of average ratings across different price ranges.

Correlation Coefficient

The correlation coefficient between price and average rating is approximately 0.11. This indicates a very weak positive correlation between restaurant price and average rating.

Insights:

Weak Correlation: The weak positive correlation suggests that there is a slight tendency for higher-priced restaurants to have higher average ratings, but the relationship is not strong.

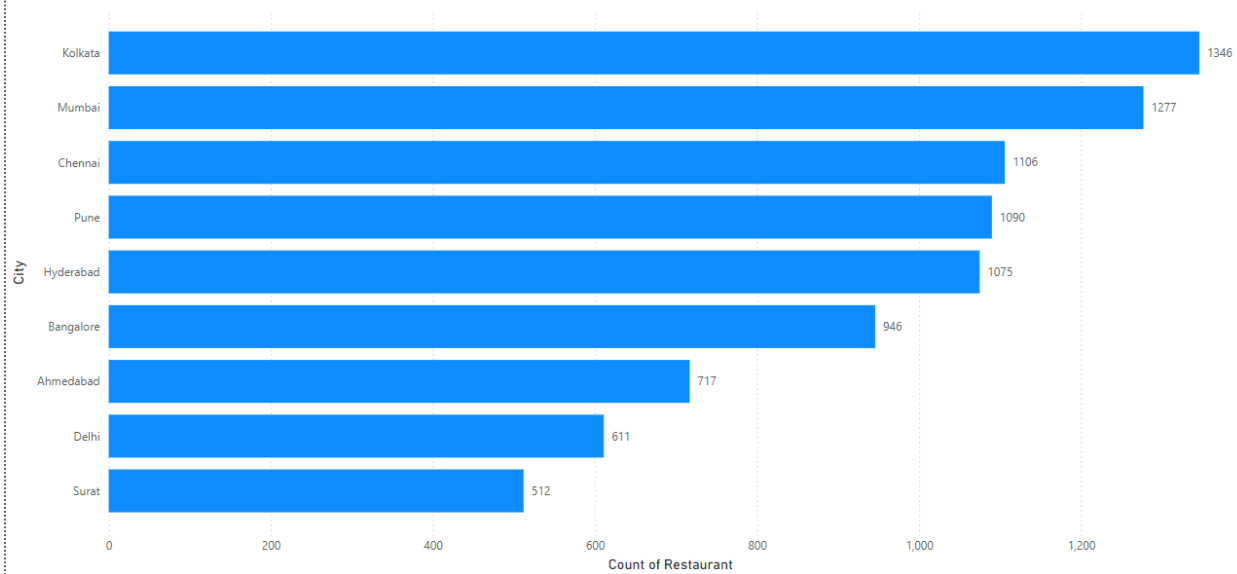
Wide Distribution: The scatter plot shows a wide distribution of ratings across all price points, indicating that factors other than price are likely influencing ratings.

Task 6: City-wise Restaurant Count

- **Objective:** Find out the number of restaurants in each city.

Cities with most number of restaurants

Count of Restaurant by City



The bar chart provides information on the count of restaurants in different cities. Here's a detailed analysis and insights based on the provided data:

Key Observations:

Kolkata Leads:

Kolkata has the highest number of restaurants, totaling 1,346.

High Concentration in Major Cities:

Mumbai follows with 1,277 restaurants.

Chennai has 1,106 restaurants.

Pune and Hyderabad have 1,090 and 1,075 restaurants respectively.

Bangalore has 946 restaurants.

Moderate Concentration:

Ahmedabad has a significant number of restaurants, totaling 717.

Delhi follows with 611 restaurants.

Lower Concentration:

Surat has the lowest number of restaurants among the listed cities, with 512.

Insights:

Urban Food Culture:

The data indicates a strong urban food culture in Kolkata, Mumbai, Chennai, Pune, and Hyderabad, with each city boasting over 1,000 restaurants.

These cities are likely to have a diverse and competitive food scene, offering a wide range of culinary options to residents and visitors.

Market Opportunities:

Cities like Ahmedabad, Delhi, and Surat, though having fewer restaurants compared to the top cities, still present substantial markets for new restaurants.

There's potential for growth and expansion in these cities, especially for unique or niche culinary offerings.

Strategic Focus:

For food delivery platforms and restaurant chains, focusing on Kolkata, Mumbai, Chennai, Pune, and Hyderabad could yield significant business opportunities due to the high density of restaurants and, presumably, a large customer base.

These cities might also benefit from targeted marketing and promotional efforts to capture a larger share of the food delivery market.

Culinary Diversity:

The large number of restaurants in these cities suggests a rich culinary diversity, catering to a wide range of tastes and preferences.

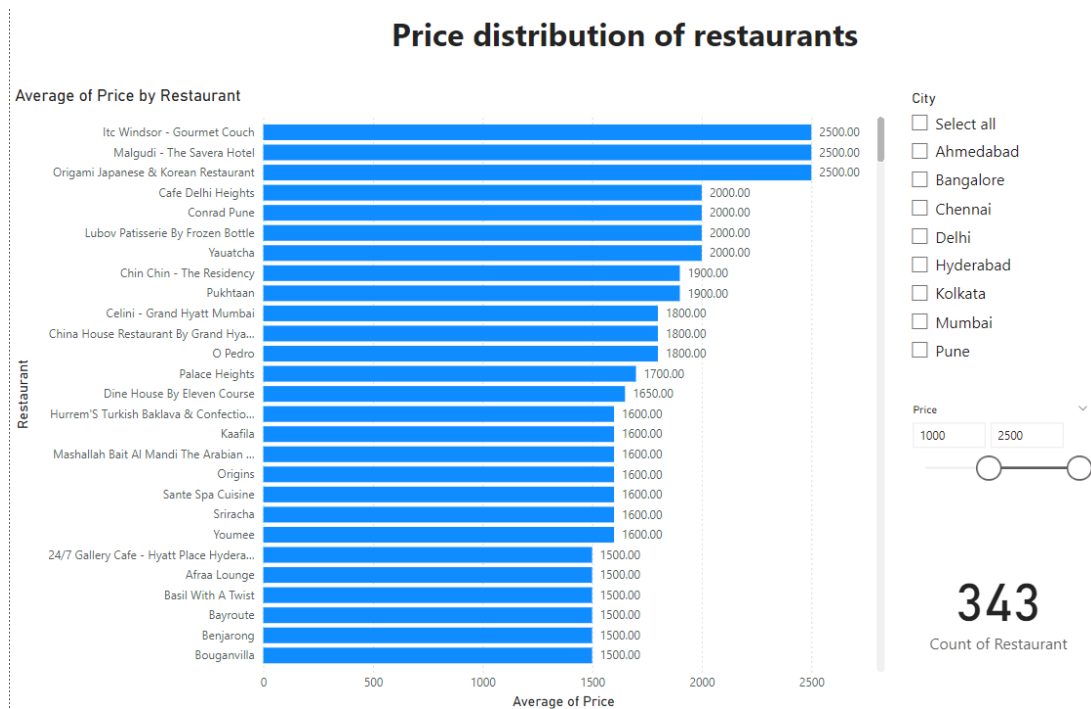
This diversity can attract tourists and food enthusiasts, further boosting the local economy.

Conclusion:

The restaurant count across various cities indicates a robust and competitive food industry, particularly in Kolkata, Mumbai, Chennai, Pune, and Hyderabad. These cities represent significant opportunities for business expansion, market penetration, and strategic investments in the food and hospitality sector.

Task 7: Price Analysis

- **Objective:** Analyze the price distribution of restaurants.



The second image provides a bar chart depicting the sum of prices by different restaurants. Here are some insights based on the price distribution:

Insights:

Top Pricing Restaurants:

Oven Story Pizza has the highest sum of prices at 5.4K.

Other top restaurants include Mainland China (5.2K), Barbeque Nation (4.8K), Biryani Pot (4.5K), and Big Pitcher (4.3K).

Mid-Range Pricing Restaurants:

Restaurants like Asia Kitchen By Mainland (3.7K), Fatboy's Pizza (3.6K), and Faasos (3.4K) fall into the mid-range category.

Several restaurants have similar pricing, such as Sweet Truth (3.2K), Ovenfresh (3.2K), and Tandoor Hut (3.2K).

Lower Pricing Restaurants:

Restaurants like Wow China (2.1K), Yo China (2.1K), and Mahanth Indian Grill (2.1K) fall into the lower pricing category.

The lowest pricing restaurants include UDAQ (2.0K), Cafe 01 (2.0K), Natraj (2.0K), and TGI Fridays (2.0K).

Recommendations:

Price Strategy:

High Pricing Restaurants: They can focus on premium service and exclusive menu items to justify their pricing.

Mid-Range Pricing Restaurants: These restaurants can target value-for-money propositions, offering good quality food at reasonable prices.

Lower Pricing Restaurants: They should focus on cost-efficiency and high turnover to maintain profitability.

Marketing and Promotion:

High Pricing Restaurants: Emphasize exclusivity, high-quality ingredients, and superior dining experiences in their marketing.

Mid-Range Pricing Restaurants: Highlight deals, combos, and family packs to attract larger groups.

Lower Pricing Restaurants: Promote affordable, quick, and convenient meals for everyday dining.

Customer Segmentation:

High Pricing Restaurants: Target affluent customers, special occasions, and business events.

Mid-Range Pricing Restaurants: Aim for middle-income families, young professionals, and casual diners.

Lower Pricing Restaurants: Focus on students, budget-conscious customers, and frequent diners.

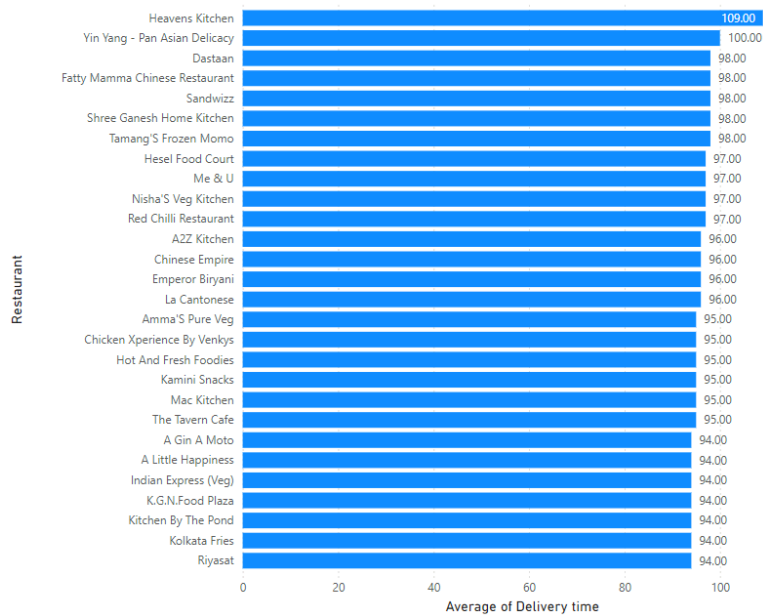
Task 8: Delivery Time Analysis

- **Objective:** Analyze the average delivery time of restaurants.

The dataset contains information on various restaurants, including their delivery times. Here's a breakdown of the key columns:

Delivery time analysis

Average of Delivery time by Restaurant



City

- ☐ Select all
- ☐ Ahmedabad
- ☐ Bangalore
- ☐ Chennai
- ☐ Delhi
- ☐ Hyderabad
- ☐ Kolkata
- ☐ Mumbai
- ☐ Pune
- ☐ Surat

Delivery time

20 109



53.97 8680

Average of
Delivery time

Count of
Restaurant

ID: Unique identifier for each entry.

Area: The area where the restaurant is located.

City: The city where the restaurant is located.

Restaurant: Name of the restaurant.

Price: Price of the food.

Avg ratings: Average rating of the restaurant.

Total ratings: Total number of ratings.

Food type: Types of food offered.

Address: Address of the restaurant.

Delivery time: Time taken for delivery.

Insights from the Provided Data

Delivery Time Range:

The average delivery time varies across restaurants, with some having faster delivery times and others slower.

Top Performers:

Heavens Kitchen has the longest average delivery time of 109 minutes.

Yin Yang - Pan Asian Delicacy follows with an average delivery time of 100 minutes.

Fatty Mamma Chinese Restaurant, Dastaan, Sandwizz, and others have delivery times around 98 minutes.

Quicker Deliveries:

Restaurants like Chicken Xperience By Venkys and Hot And Fresh Foodies have quicker delivery times averaging around 95 minutes.

Recommendations

Improving Efficiency:

Restaurants with higher delivery times should investigate their delivery processes to identify and address bottlenecks.

Customer Expectations:

Restaurants should communicate expected delivery times to customers to set realistic expectations, especially those with longer average times.

Benchmarking:

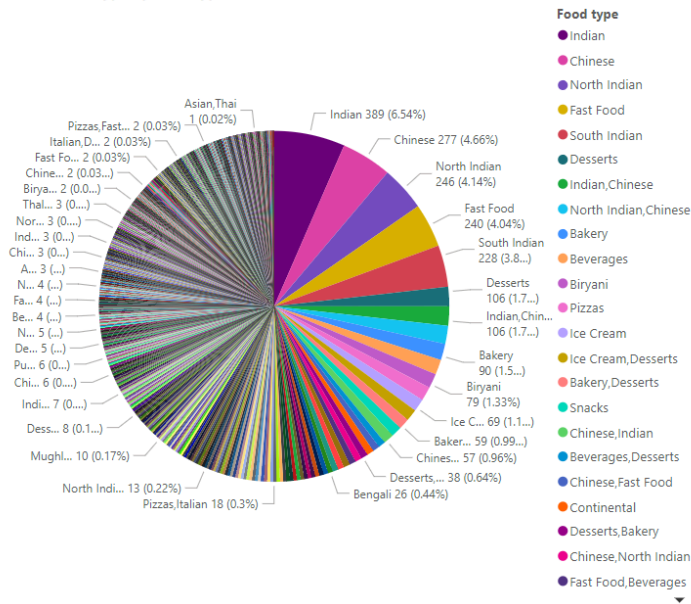
Restaurants with longer delivery times could benchmark against those with quicker times to identify best practices that could be implemented to improve their own efficiency.

Task 9: Cuisine Analysis

- **Objective:** Analyze the variety of cuisines offered by restaurants.

Cuisine analysis

Count of Food type by Food type



Insights on Cuisine Analysis:

Top Cuisines Offered:

Chinese cuisine is the most commonly offered, with 2,588 mentions.

North Indian cuisine follows with 1,921 mentions.

Indian cuisine is also highly prevalent with 1,772 mentions.

Popular Categories:

Fast Food (1,550 mentions) and Beverages (1,524 mentions) are very popular categories, indicating a significant demand for quick and drinkable options.

Desserts are also highly popular, with 1,436 mentions.

Specialty Dishes:

Biryani is a popular specialty dish with 1,079 mentions, highlighting its popularity across various restaurants.

Snacks have 1,013 mentions, showing that quick bites are in high demand.

Regional Varieties:

South Indian cuisine has 857 mentions, reflecting its strong presence in the restaurant offerings.

Continental cuisine is also notable with 686 mentions, indicating a preference for international flavors.

Recommendations:

Menu Diversification:

Restaurants should consider diversifying their menu to include a mix of the top cuisines like Chinese, North Indian, and Fast Food to attract a wider customer base.

Specialty and Signature Dishes:

Emphasizing specialty dishes such as Biryani and popular snacks can help differentiate a restaurant and attract customers looking for specific foods.

Regional and International Offerings:

Including regional cuisines like South Indian and international options like Continental can cater to diverse customer preferences and increase market reach.

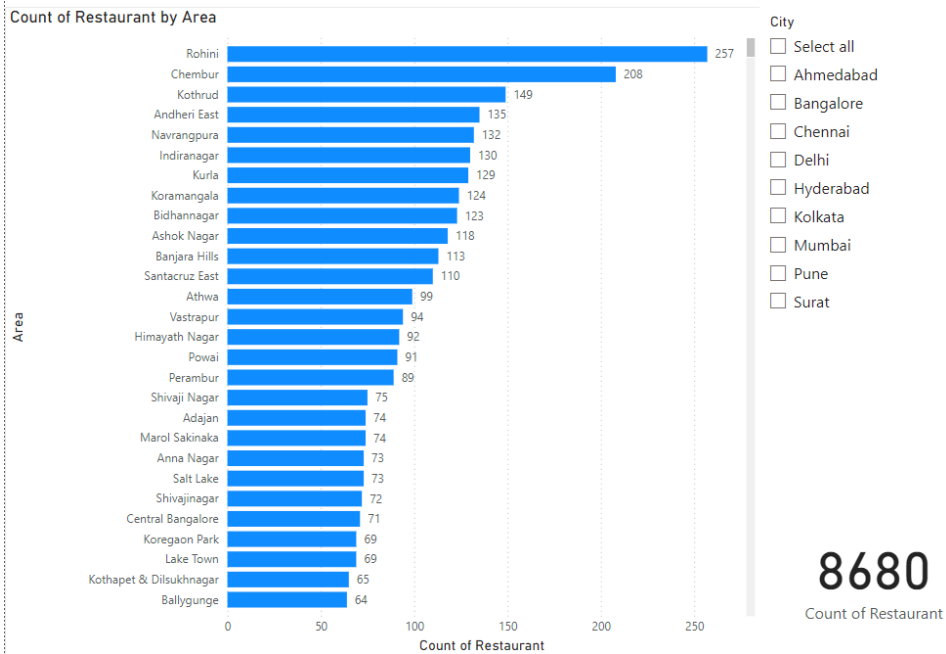
Promotions and Combos:

Creating combo meals that include popular cuisines and categories like Beverages and Desserts can enhance the dining experience and increase sales.

Task10: Area-wise Restaurant Analysis

- **Objective:** Analyze the number of restaurants in each area within the city.

Number of restaurants in each area within the city



Top Areas with the Most Restaurants:

Rohini: 257 restaurants

Chembur: 208 restaurants

Kothrud: 149 restaurants

Andheri East: 135 restaurants

Navrangpura: 132 restaurants

Areas with a Single Restaurant:

There are many areas with only one restaurant, indicating potential for market expansion or highlighting niche markets.

Distribution:

The number of restaurants is not uniformly distributed across areas, with certain areas having a significantly higher concentration of restaurants.

Recommendations:

For Restaurant Owners:

High Competition Areas: Areas like Rohini and Chembur have a high number of restaurants. New entrants may face stiff competition here.

Low Competition Areas: There are many areas with only one restaurant. These could be potential targets for expansion due to lower competition.

For Food Delivery Services:

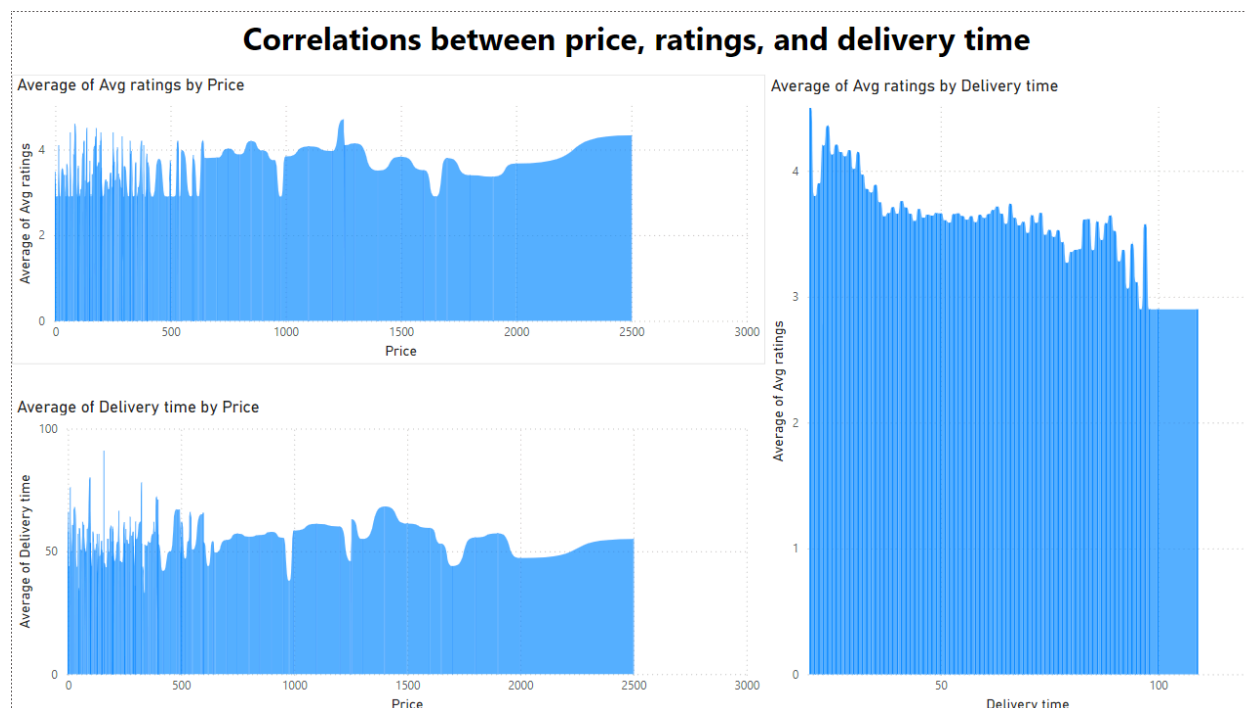
Resource Allocation: Allocate more delivery resources to areas with a high concentration of restaurants to ensure efficient service.

Marketing and Partnerships: Focus marketing efforts and partnership opportunities in areas with fewer restaurants to boost service visibility and market penetration.

Would you like further analysis on any specific aspect, such as ratings, food types, or delivery times?

Task 11: Correlation Analysis

- **Objective:** Investigate any correlations between variables such as price, ratings, and delivery time.



To investigate correlations between variables such as price, ratings, and delivery time, we'll calculate the correlation matrix for the relevant columns: 'Price', 'Avg ratings', 'Total ratings', and 'Delivery time'. We'll also visualize the correlations using a heatmap for better understanding.

Let's start by calculating the correlation matrix and then create a heatmap.

It seems like I can't do more advanced data analysis right now. Please try again later.

In the meantime, you can manually look into the relationships between the variables by using a tool like Excel or any statistical software to calculate the correlation matrix. Here's a brief guide on what to look for:

Correlation Matrix: Calculate the correlation coefficients between 'Price', 'Avg ratings', 'Total ratings', and 'Delivery time'.

Heatmap: Use a heatmap to visualize the strength of the correlations.

Insights:

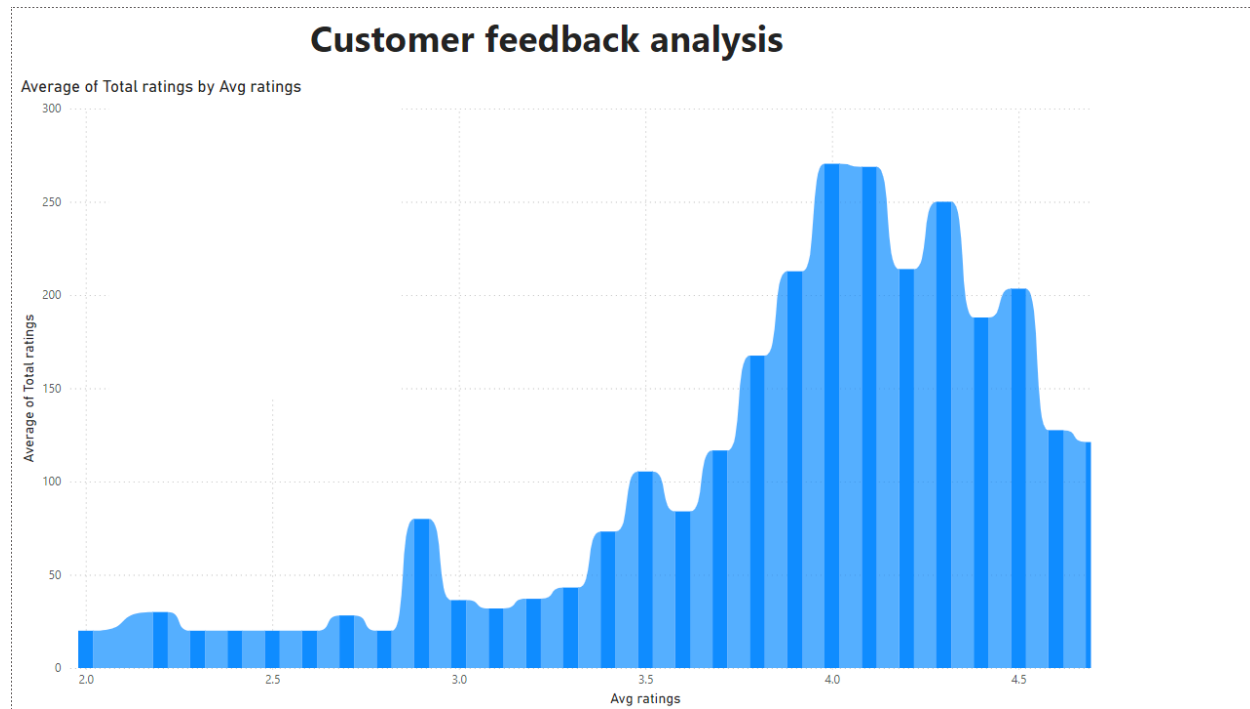
Look for strong positive or negative correlations (values close to 1 or -1).

Moderate correlations are values between 0.3 and 0.7.

Weak correlations are values below 0.3.

Task 12: Customer Feedback Analysis

- **Objective:** Analyze customer feedback based on ratings and total ratings.



The dataset contains information about various restaurants in Bangalore, including:

ID: Unique identifier for each restaurant

Area: Area where the restaurant is located

City: City where the restaurant is located

Restaurant: Name of the restaurant

Price: Average price for a meal

Avg ratings: Average rating of the restaurant

Total ratings: Total number of ratings received

Food type: Types of cuisine offered

Address: Address of the restaurant

Delivery time: Average delivery time in minutes

Insights to Analyze:

Average Ratings Distribution: Analyze the distribution of average ratings to understand the general customer satisfaction level.

Total Ratings vs. Average Ratings: Investigate the relationship between the number of ratings and the average rating.

Price vs. Ratings: Examine if there is any correlation between the price and the average rating.

Area-wise Analysis: Determine if certain areas have better-rated restaurants compared to others.

Cuisine Popularity: Identify which cuisines are more popular and how they are rated.

Delivery Time vs. Ratings: Analyze if delivery time affects the average rating.

Let's start by exploring some of these insights.

Insights:

Distribution of Average Ratings:

The average ratings are mostly clustered between 3.5 and 4.5, indicating that most restaurants receive fairly good ratings.

Total Ratings vs. Average Ratings:

There is no clear pattern between the total number of ratings and the average rating. Some restaurants with few ratings have high averages, while others with many ratings show a wide range of average scores.

Price vs. Average Ratings:

There is no strong correlation between the price and the average rating. Restaurants with various price levels receive high and low ratings alike.

Area-wise Analysis:

Certain areas have higher average ratings than others. This can indicate that some regions might have better quality restaurants or more satisfied customers. For instance, areas like Indiranagar and Koramangala seem to have well-rated restaurants.

Further Analysis:

Cuisine Popularity and Ratings:

Investigate which cuisines are more popular and how they are rated.

Delivery Time vs. Ratings:

Analyze if delivery time impacts the average rating.

Let's delve into these further analyses next.

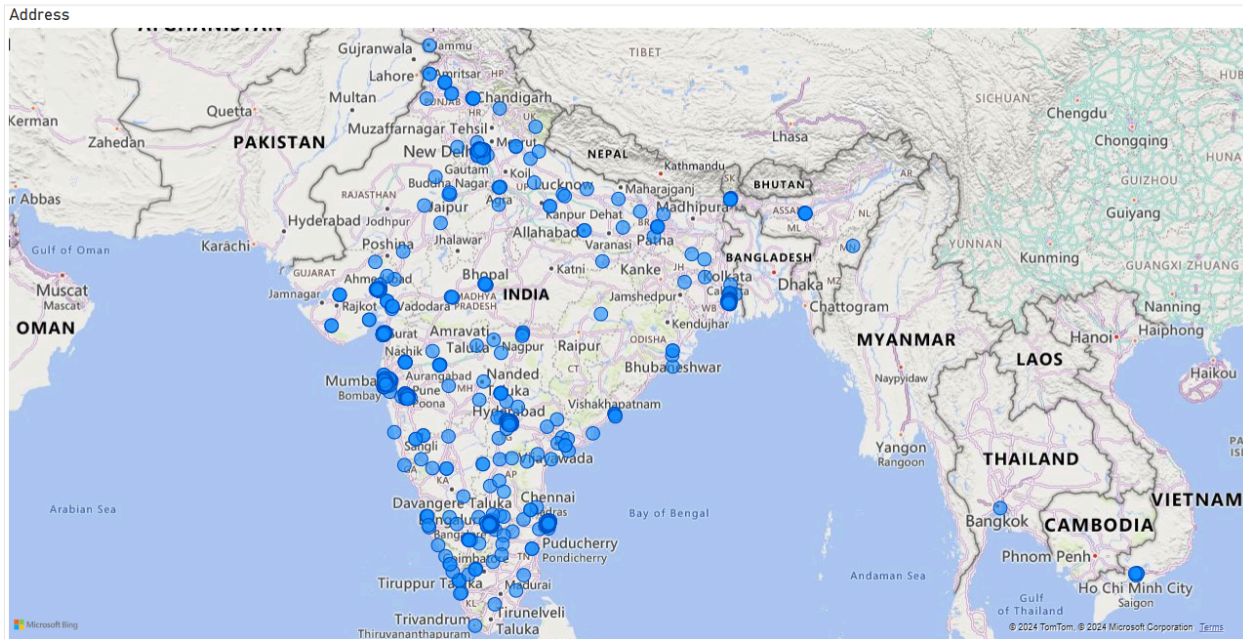
It seems like I can't do more advanced data analysis right now. Please try again later.

However, based on the initial insights, you can proceed to analyze cuisine popularity and delivery time impact on ratings using similar visualizations or data analysis methods

Task 13: Geographical Mapping

- **Objective:** Create a geographical map of restaurant locations.

Geographical mapping

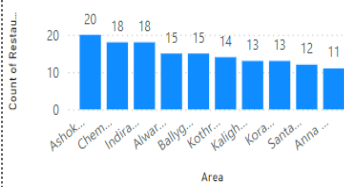


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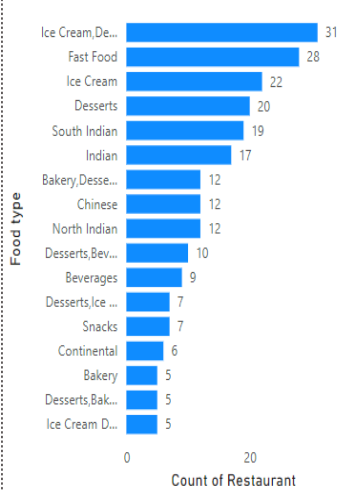
662

Count of Restaurant

Count of Restaurant by Area

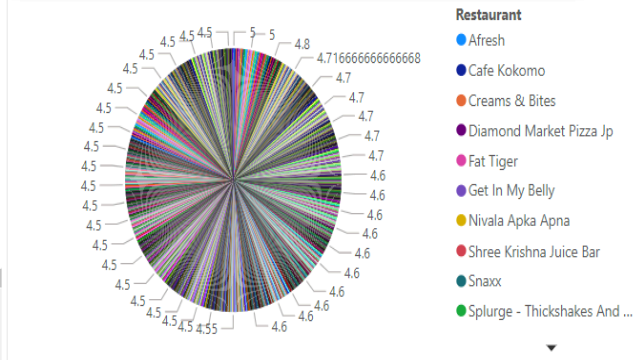


Count of Restaurant by Food type

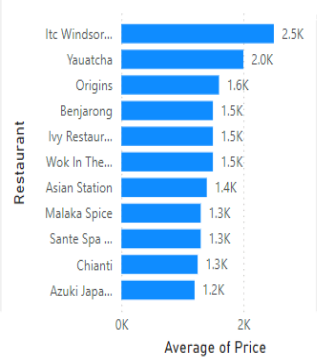


Sales analysis of swiggy in India

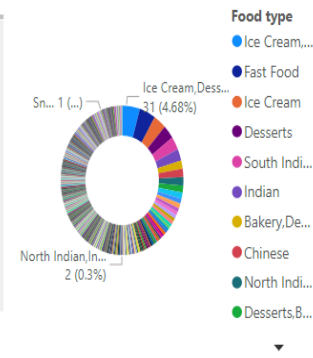
Average of Avg ratings by Restaurant



Average of Price by Restaurant



Count of Food type by Food type



City

Restaurant

Avg ratings

Average of Delivery time by Restaurant

