Task B2
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Dataset Used: NYC Restaurants Data - Food Ordering and Delivery
https://www.kaggle.com/datasets/ahsan81/food-ordering-and-delivery-app-dataset/data

The following dataset has been chosen to analyze and visualize food ordering and delivery trends in NYC.

Description: Highlighted fields are used in visualization.

Dimension / Measure	Description	Data Type	NOIR
order_id	Unique ID of the order	Qualitative	Nominal
customer_id	ID of the customer who ordered the food		
restaurant_name	Name of the restaurant		
cuisine_type	Cuisine ordered by the customer		Ordinal
day_of_the_week	Indicates whether the order is placed on a weekday or weekend (Monday to Friday, Saturday, Sunday)		
rating	Rating given by the customer out of 5. (Initially ratings were strings as dimensions, converted them into measures as integers. Ratings in dataset were NotGiven, 3, 4, 5; hence ordinal)		
cost	Cost of the order	Quantitative	Ratio
food_preparation_time	Time (in minutes) taken by the restaurant to prepare the food		
delivery_time	Time (in minutes) taken by the delivery person to deliver the food package		

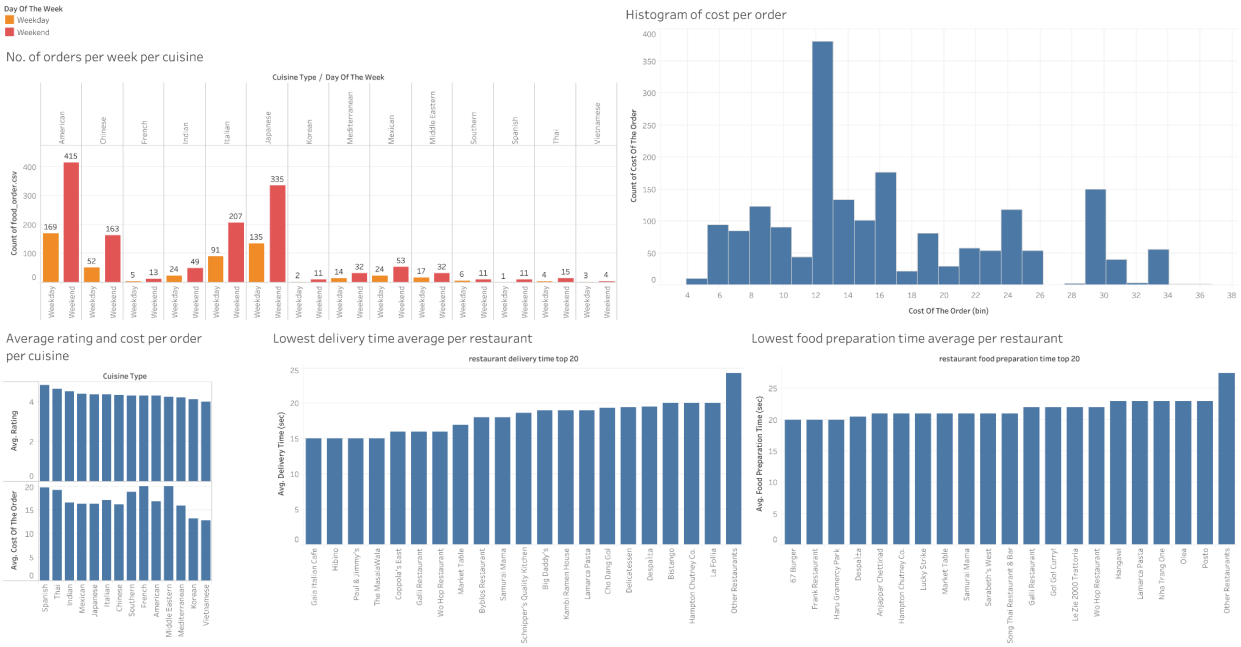
Following are the queries for this task:

1. Find order counts per cuisine for weekdays / weekends.

2. Histogram for cost per order to see its distribution.
3. Highest average rating for a cuisine. Also finding the average cost per order per cuisine.
4. Best 20 restaurants based on lowest averages of delivery time and food preparation time.

Visualizations:

https://public.tableau.com/app/profile/khurush.bengali./viz/B2NYCRestaurantsData/NYCRestaurantsData?publish=yes



Visual Encodings Used:

1. Weekdays and weekends have been differentiated with colour. Count labels have been added for each bar to help in readability of smaller bars.
2. Histogram used for cost per order.
3. Cuisine types are sorted based on avg ratings for each cuisine.
4. Restaurant names are sorted based on average delivery times and food preparation times. After 20 top restaurants, “Other Restaurants” is used for the remaining.

Findings and Observations:

1. For most cuisines, it is common to see more orders on weekends rather than the weekdays. As the data is based on NYC restaurants, it was expected for a higher number of orders from American cuisine.

2. Histogram for cost per orders show few common price ranges. For example 5 to 10$, 12 to 17$, 21 to 26$. Cost per order highly depends on the number of people for that order, making 12$ more common as it might be for 1 to 2 people.
3. We can also compare the average rating for each cuisine with its average cost per order. Spanish and Thai being the highest rated which makes sense for their higher prices. On the other hand, Southern, French, Middle Eastern have lower ratings but still higher cost. Indian, Mexican, Japanese, Italian and Chinese have good ratings with cheaper cost per order.
4. After comparing top restaurants based on average delivery time and food preparation time, we see a few common restaurants names such as Galli Restaurant, Market Table, Samurai Mama, Wo Hop Restaurant, Lamarca Pasta, Hampton Chutney Co. and DespaÌ±a. Though the top restaurants with the fastest average delivery time may not have the fastest average food preparation time and vice versa, we can still recommend the above restaurants considering they are in both categories and provide much better overall time for food delivery.