



FoodHub – Restaurant Performance Analysis

# Foundations Of Data Science

April 22, 2023 - Joseph R. Sanders

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# Executive Summary

- **Conclusions:**

- American cuisine is a customer favorite followed by Japanese cuisine
- The cost of the order is not related to preparation time
- From the heatmap and scatter plots we see no correlation across variables
- More orders are placed on the weekend.

- **Recommendations:**

- Investigate ways to improve customer feedback. The high amount of "Not Given" ratings, 38%, should be decreased
- Incentivize customers and restaurant owners to provide ranking feedback. Inquire if customers are okay with delivery times
- Cuisine diversity should be explored. Maybe advertising and advocating for exploring more food selections
- Have the restaurants investigate cutting down the preparation and delivery times



# Business Problem Overview and Solution Approach

## Areas of Improvement

- Look for ways to cut down on preparation time & delivery time
- Incentivize all parties involved to participate in the rating system
- More diversity in choices of cuisine
- Investigate which restaurants have discounted food hours

# Data Overview

## Data Overview

- The dataset consisted of 1898 observations and 9 variables. Two of the variables were categorical variables
- The self-reporting data result in no nulls values but, there were over 700 hundred orders that were not given a ratings
- The average food preparation time was approximately 27 minutes. The minimum was 20.

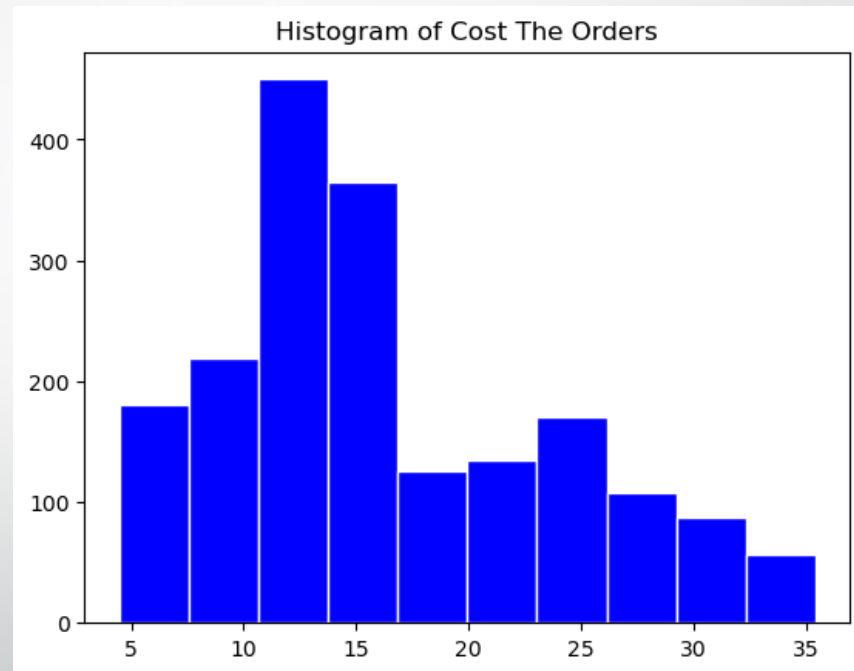
**Note:** You can use more than one slide if needed

# Explorations of The Variables - Univariate

- The following 4 slides are explorations in

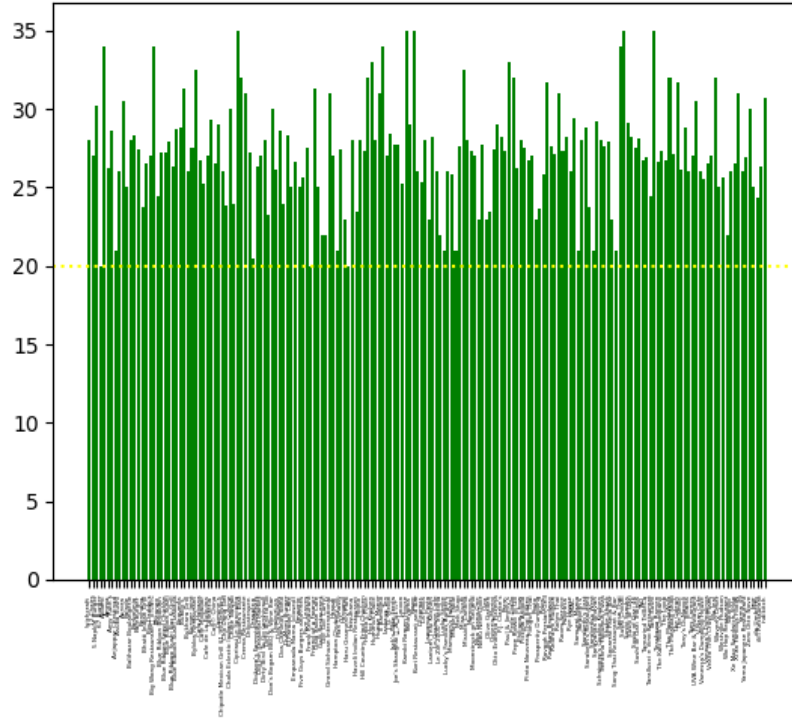
Visualizations using the following:

- Bar graphs
- Histograms
- Box And Whisker
- Pie Charts

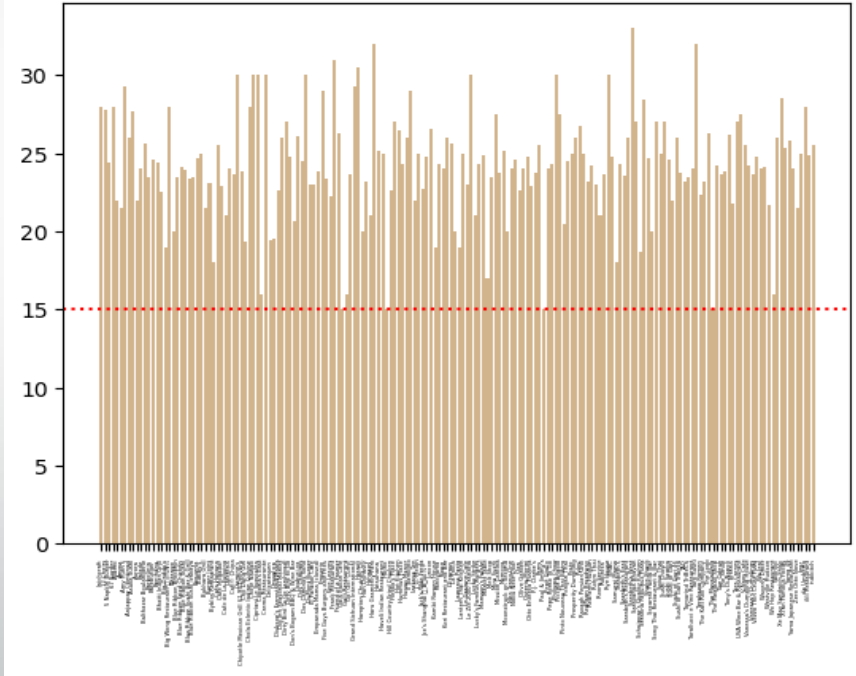


# Overview Of Delivery and Prep Time Per Restaurant

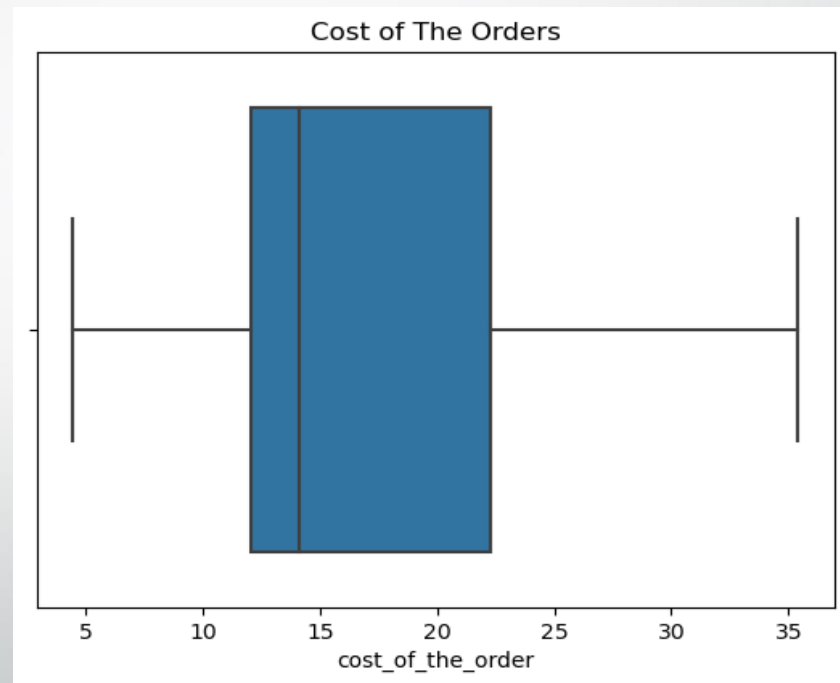
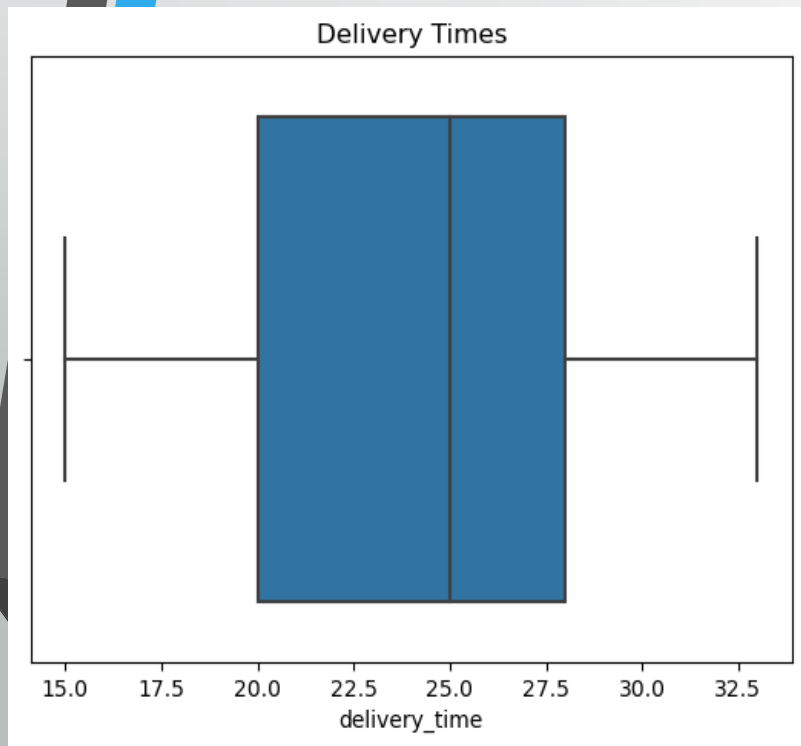
Average Preparation Time for Each Restaurant



Average Delivery Time for Each Restaurant

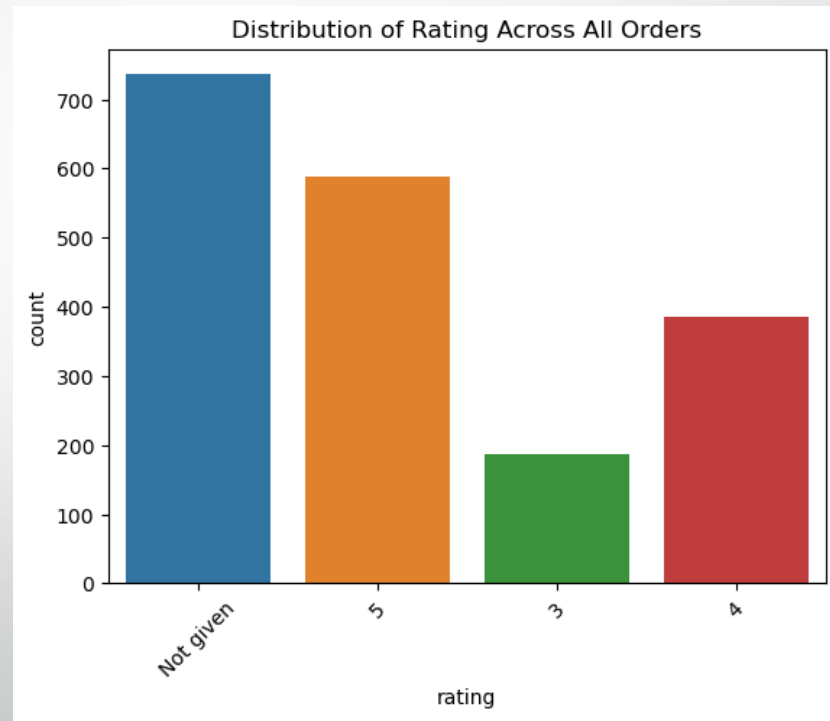
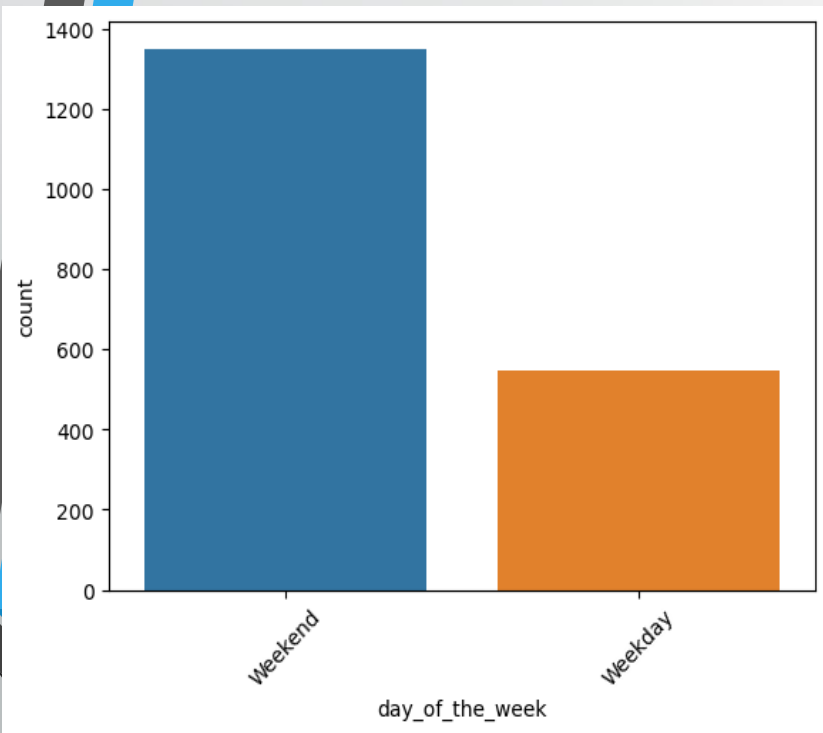


## Spread of Delivery Times and Order Cost Across Restaurants



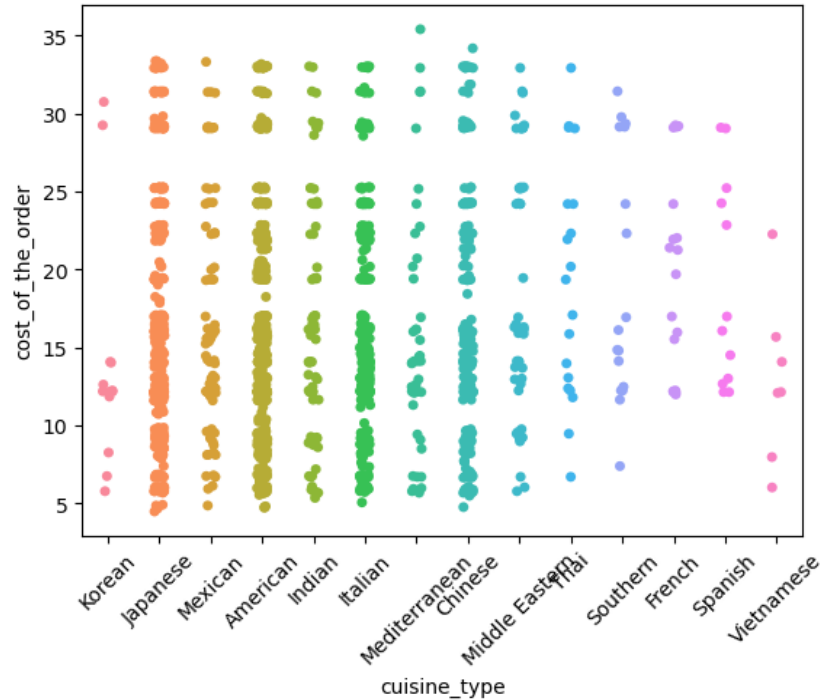


# Deliveries Counts & Distribution of Ratings

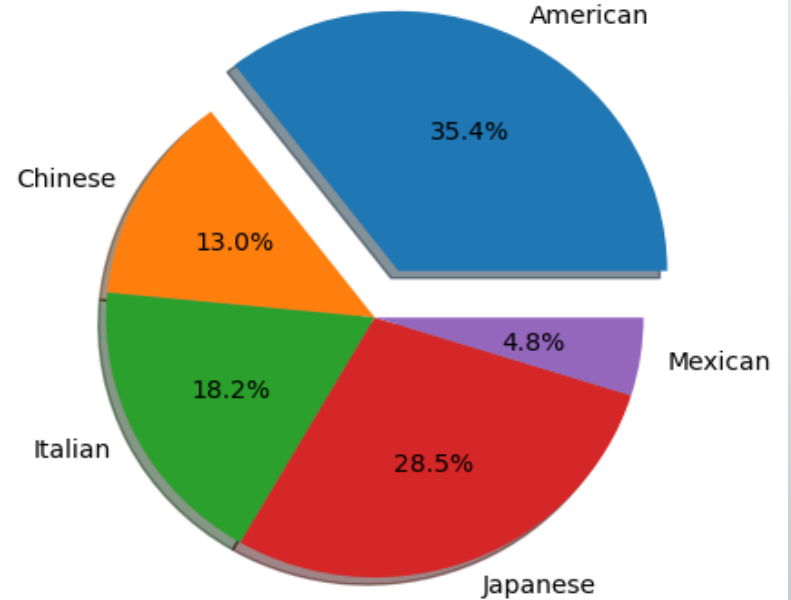


## Cuisine Price

## & Top Five Only of Cuisine



Top Five Cuisine-Only Distribution by Cost Of Order



# Cuisine's & Restaurant

## 7) The Top 5 Restaurants in Terms of Orders Received Are

Restaurant Name	count
Shake Shack	219
The Meatball Shop	132
Blue Ribbon Sushi	119
Blue Ribbon Fried Chicken	96
Parm	68
Observations:	
1) Shake Shack 2) The Meatball Shop 3) Blue Ribbon Sushi 4) Blue Ribbon Fried Chicken 5) Parm	

## 8) Most Popular Cuisine

American is the most Popular Cuisine American	
415	
Japanese	335
Italian	207
Chinese	163
Mexican	53
Indian	49
Mediterranean	32
Middle Eastern	32
Thai	15

# Deliver Stat, Orders and Frequent Customers

Percent Of Orders That Cost More Than 20 Dollars is  
29.24%

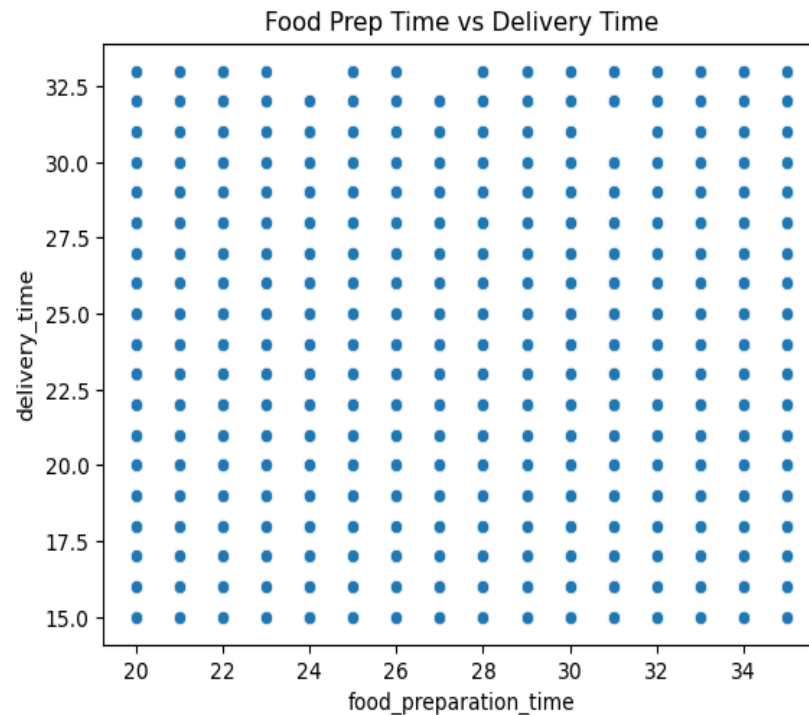
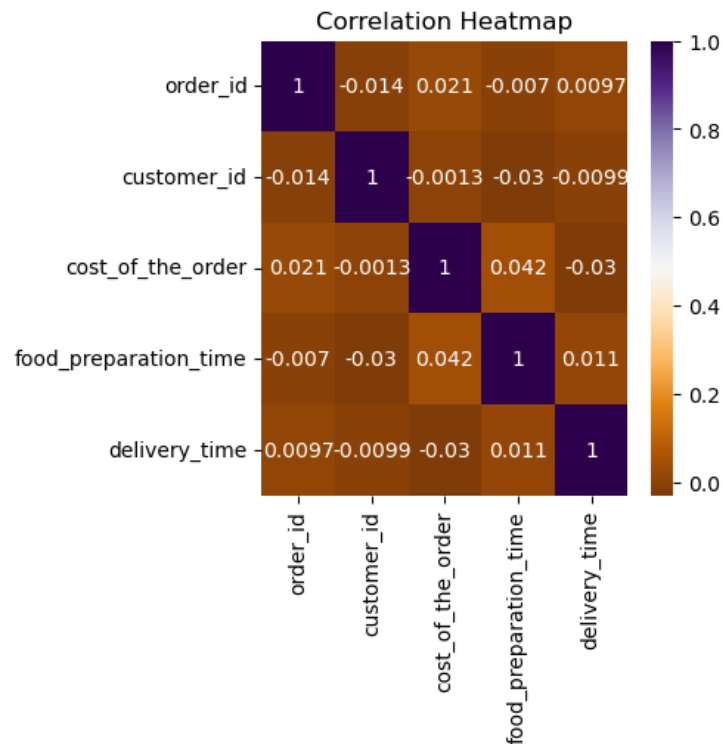
The mean order deliver time is 24.16

Below are the Following Customers Have Earned 20% Voucher (ID, Quantity)

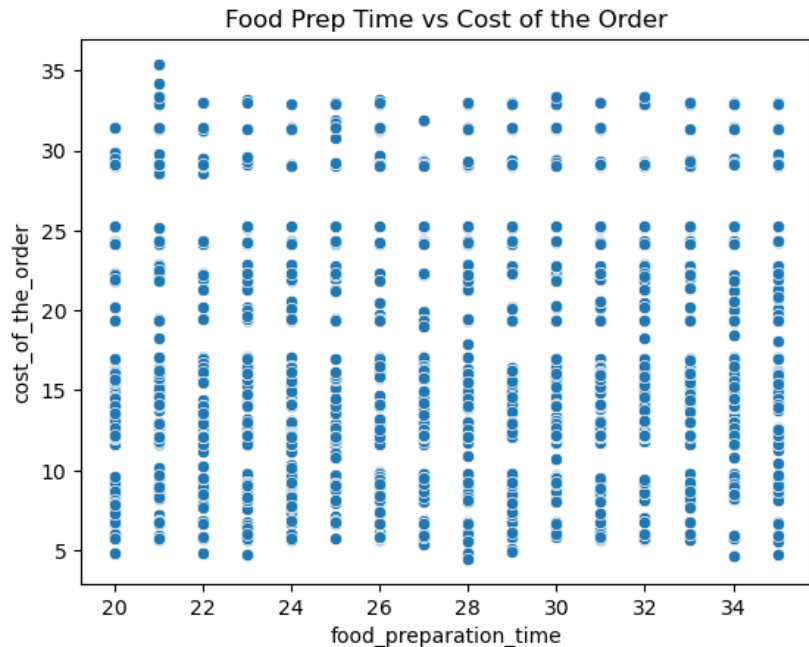
The top three customers are

52832	13
47440	10
83287	9

# 12.1 Multivariate Analysis – No Correlation



## 12.2 Multivariate Analysis – No Correlation

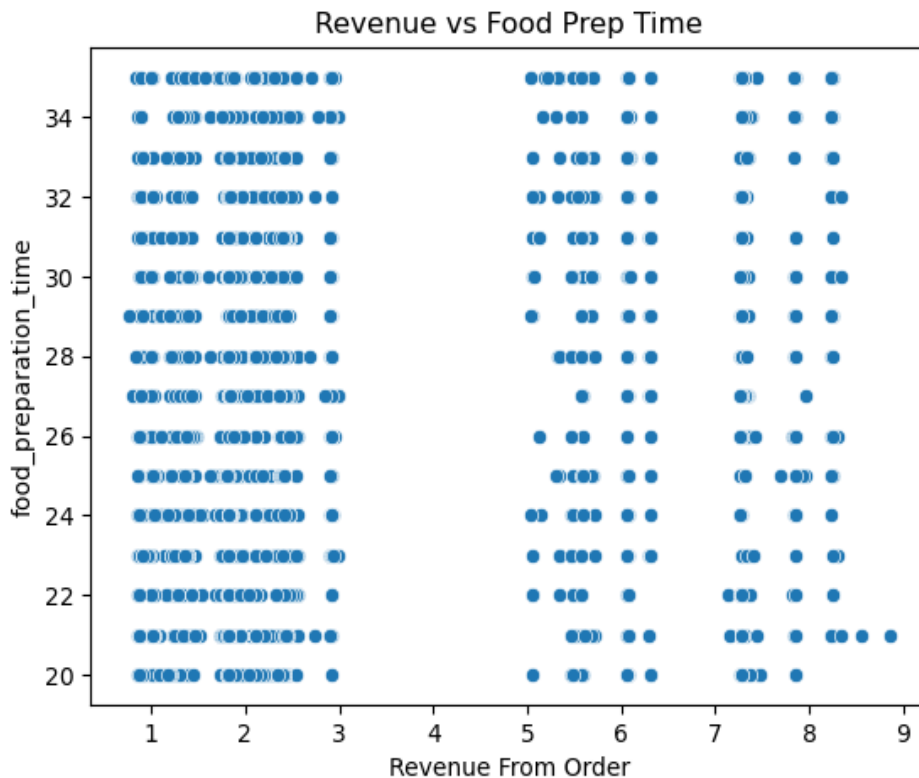


13) The condition to get the offer is that the restaurants must have a rating count of more than 50 and the average rating should be greater than 4

- Restaurant that satisfy the Criteria  
count
- Restaurant Name
- Blue Ribbon Fried Chicken 64
- Blue Ribbon Sushi 73
- Shake Shack 133
- The Meatball Shop 84

# 14) The net revenue generated by the company across all orders

- The Total Revenue Based On Cost Of Orders Is
- 6166.303





# Percent Of Deliveries and Weekend vs Weekday

Percentage Deliveries that take More Time  
Than 60 Minutes is

10.54%

Delivery Comparisons

	mean	min	max	median	median
day_of_the_week					
Weekday	28.34	24	33	28.0	
Weekend	22.40	15	30	22.0	

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# APPENDIX



**Happy Learning !**

