To create this Zomato data analysis project, follow these step-by-step instructions:

Step 1: Set Up the Environment and Import Necessary Libraries

1. Ensure you have Python and Jupyter Notebook installed.
2. Install the necessary libraries using pip (if not already installed)
3. Import the required libraries

   (install pandas, numpy, matplotlib, seaborn)

Step 2: Load the Dataset

1. Load the Zomato dataset into a DataFrame.
2. Display the first few rows to understand its structure.

Step 3: Clean and Prepare the Data

1.) Convert Ratings: Since the rate column contains ratings with "/5," split and convert it to a numeric format.

2.) Verify Data Types: Check the data types of all columns and the presence of null values.

3.) **Conclusion**: Confirm there are no null values in the dataset.

Step 4: Data Analysis and Visualization

Analysis 1: Types of Restaurants

1. Use a count plot to show the distribution of restaurant types.
2. **Conclusion**: Note which type of restaurant is the most common. Dining seems to be preferred.

Analysis 2: Votes by Restaurant Type

1. Group the data by `listed_in(type)` and calculate the sum of votes.
2. Plot the result to show the total votes per restaurant type.

Analysis 3: Ratings Distribution

1. Plot a histogram of the rate column to show the distribution of ratings.
2. **Conclusion**: Identify the rating range most restaurants fall into (typically 3.5 to 4).

Analysis 4: Restaurant Cost Preference for Couples

1. Use a count plot to examine `approx_cost(for two people)`.

Analysis 5: Online vs. Offline Ratings

1. Create a box plot to compare ratings for online vs. offline orders.
2. **Conclusion**: Observe if online orders have higher ratings than offline ones.

Analysis 6: Online Orders by Restaurant Type

1. Create a pivot table to show the number of restaurants offering online vs. offline orders by type.
2. Use a heatmap to visualize this data.

Conclusion: Note the preference of online orders for cafes and offline orders for dining restaurants.

7. Find the Insights :

1.) What type of restaurant do the majority of customers order from?

2.) How many votes has each type of restaurant received from customers?

3.) What are the ratings that the majority of restaurants have received?

4.) Zomato has observed that most couples order most of their food online. What is their average spending on each other?

5.) Which mode (online or offline) has received the maximum rating?

6.) Which type received more offline orders, so that Zomato can provide those customers with some good offers?

ALL THE BEST!!!