Prompt for the Final Project in Sprint 7:

“You've been hired as a junior analyst for Zomato. Zomato is a multinational restaurant aggregator and food delivery company. As your first assignment in the onboarding process you’re given several test datasets to analyze the business performance of restaurants and customers registered in the service.
BI-Analytics Team in Zomato usually performs 3 types of analysis:

1. *Customer Analysis Segmentation: who are Zomato’s customers? What segments can we split them into? What is their purchasing behavior?…*
2. *Restaurant Analysis: What restaurants are popular? What restaurants generate the highest revenue? Why?…*
3. *Sales Analysis: Dynamics of sales/revenue overtime, main KPIs, change in distribution of sales and so on…*

Your reviewer expects you to perform one type of the analysis as well. Choose 1 out of the 3 areas to focus on and build your research plan.
At the end of your onboarding process, you should present the dashboard related to the area as well as the main key points of your analysis in the format of report or presentation.”

Goal: I decided to work on the 2nd prompt, determining which restaurants are popular, generate the highest revenue and why.

Hypothesis: Restaurants with the most popular cuisines and the highest ratings are the most popular and have the highest revenue.

Questions:

- What is the most popular cuisine according to the data?
- Which restaurants have the highest total ratings?
- How do popular cuisines and high ratings affect a restaurant’s business?
- Are the most popular restaurants well known chains? Or more local restaurants?

Before the Visualizations:

Overall layout: most popular overall restaurants, most popular cuisines, ratings, then the dashboard after all the data was compiled.

Data Prior:

- I would primarily use the spreadsheets, restaurants and orders tables. I would convert them from .csv files to .xlsx so that I can import both tables into Tableau.
- I would search the data using *Trim(),Upper(),* & *Lower()* in the spreadsheets to organize and clean the data to make the data more accurate.
- I would find any Null or blank values to important data (such as restaurant name) and either correct the data if possible, or delete the data as bad data.
- I would use inner join in Tableau to help filter out unnecessary and broken data from both charts.

Visualizations:

- Will use Tableau for charts and dashboards, as I was more familiar with the program than PowerBI and was easier to share and submit.
- Bar chart of the restaurant with the highest revenue organized from highest revenue to lowest.
- Bar chart of the cuisines organized by highest to lowest revenue.
- Bar chart of the restaurant with the highest rating organized from highest to lowest.
    - All three bar charts would be filtered to only show the top 5 restaurants.
    - Colors and numbers would be used to show the data to make it easy to read.
    - For the rating bar chart, I will make sure to prioritize highest ratings, based on the average of ratings for each restaurant. This is to make sure a restaurant with one review is rated as equally as a restaurant with 100 reviews.
- Scatter plot that measures the correlation between ratings and revenue. The revenue would be the x axis, ratings y axis, each circle would represent each restaurant, with the goal to find a trend between ratings and revenue.
- Dashboard that has 4 sections that shows the following:
    - Top Left: 5 most popular restaurants bar chart
    - Top Right: 5 most popular cuisines bar chart
    - Bottom Left: 5 highest rating restaurants
    - Bottom Right: Scatterplot of restaurants, filtering options for top 5 restaurant placement

- Tableau Visualizations: Each visual will have a Tableau slide that explains the data and overall picture of how ratings and cuisine affects revenue.

Overall Outline:

Before Importing data:

Convert spreadsheets to xlsx -> Clean the data using Trim, Upper, Lower in the spreadsheets and other data cleaning tools -> Import the spreadsheets to Tableau -> Inner Join the Order and Restaurant spreadsheets

Visualizations:

Cuisine Bar Chart -> Popular Restaurant Bar Chart -> Cuisine bar chart -> Restaurant Ratings Bar chart -> Scatter Plot of Ratings, Revenues, & Restaurants

Dashboards:

Top Left: 5 most popular restaurants bar chart=>Top Right: 5 most popular cuisines bar chart=>Bottom Left: 5 highest rating restaurants =>Bottom Right: Scatterplot of Ratings, Revenues, & Restaurants => Add sliders and filters to adjust the data in the Dashboard => Add Tableau slides explaining data and dashboards