



EDA Internship Task Week 4

McDonald's Menu Nutritional Facts Analysis

This research effort examines McDonald's, a well-known restaurant, in terms of its nutritional content. An American businessman named Roy Kroc, who served as the former CEO of McDonald's, had the vision to open a fast-food joint that consistently served meals of the highest caliber. Every menu item on the US McDonald's menu, including breakfast, beef burgers, chicken and fish sandwiches, fries, salads, drinks, coffee and tea, milkshakes, and desserts, has its nutrition information analyzed in this dataset. We will focus on the correlation between Calories and other independent variables.

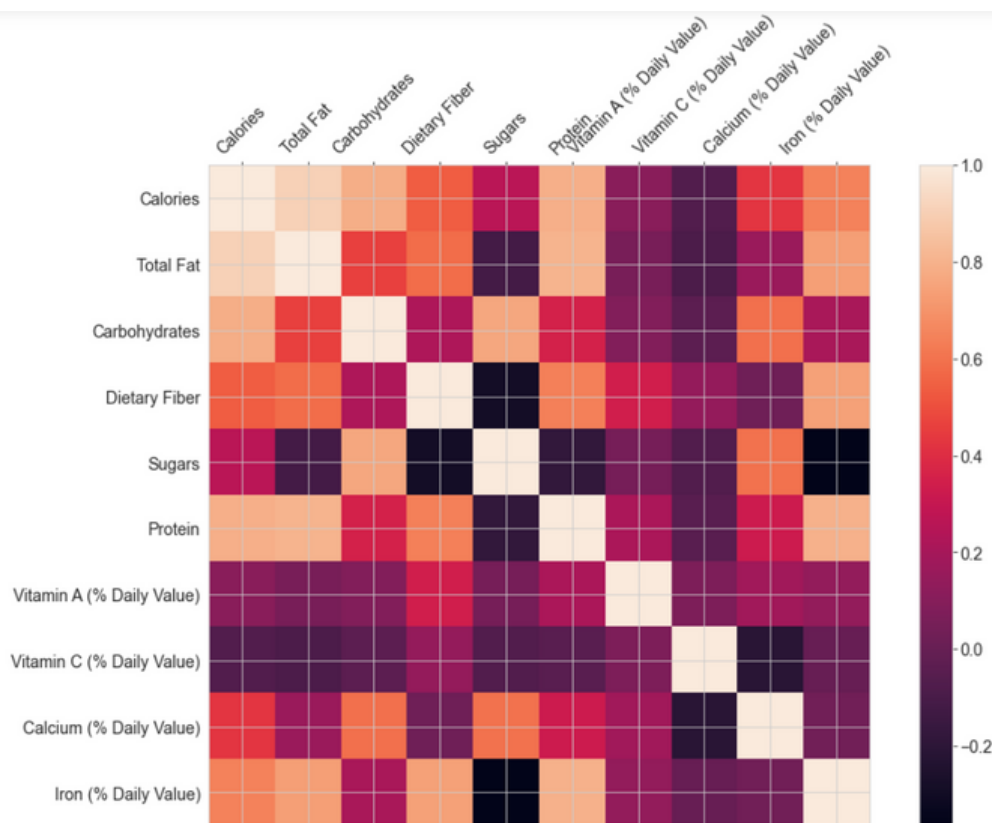
Find dataset **menu.csv** in same folder. We will only deal with following attributes

['Calories', 'Total Fat', 'Carbohydrates', 'Dietary Fiber', 'Sugars', 'Protein', 'Vitamin A (% Daily Value)', 'Vitamin C (% Daily Value)', 'Calcium (% Daily Value)', 'Iron (% Daily Value)']

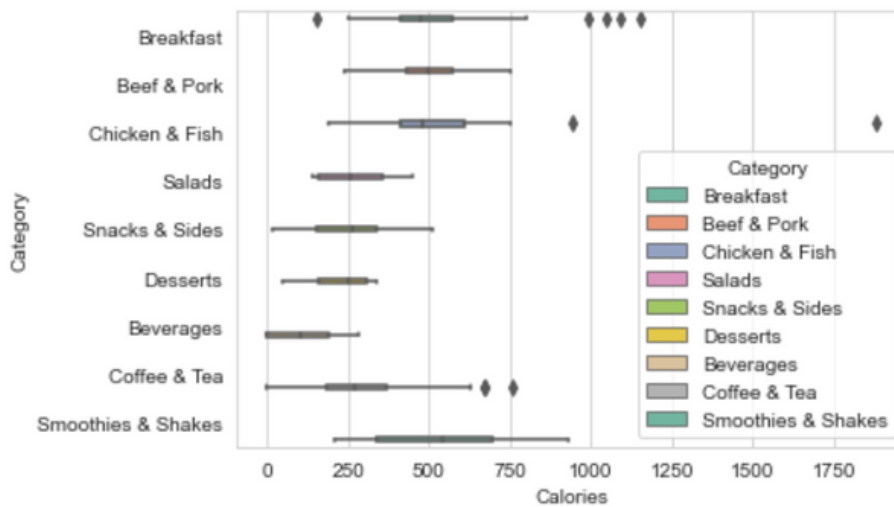
Q.1: Import libraries (Numpy, pandas, matplotlib, plotly and seaborn) and then read csv file.

Q.2: Check statistical facts by checking all columns. Then calculate the maximum value of the following attributes **['Calories', 'Total Fat', 'Carbohydrates', 'Dietary Fiber', 'Sugars', 'Protein', 'Vitamin A (% Daily Value)', 'Vitamin C (% Daily Value)', 'Calcium (% Daily Value)', 'Iron (% Daily Value)']**

Q.3: Check to see if infact there is any correlation between Calories and other independent variables by plotting a correlation matrix next.



Q.4: Draw boxplot for Calories vs Category to spot outliers and max calories category

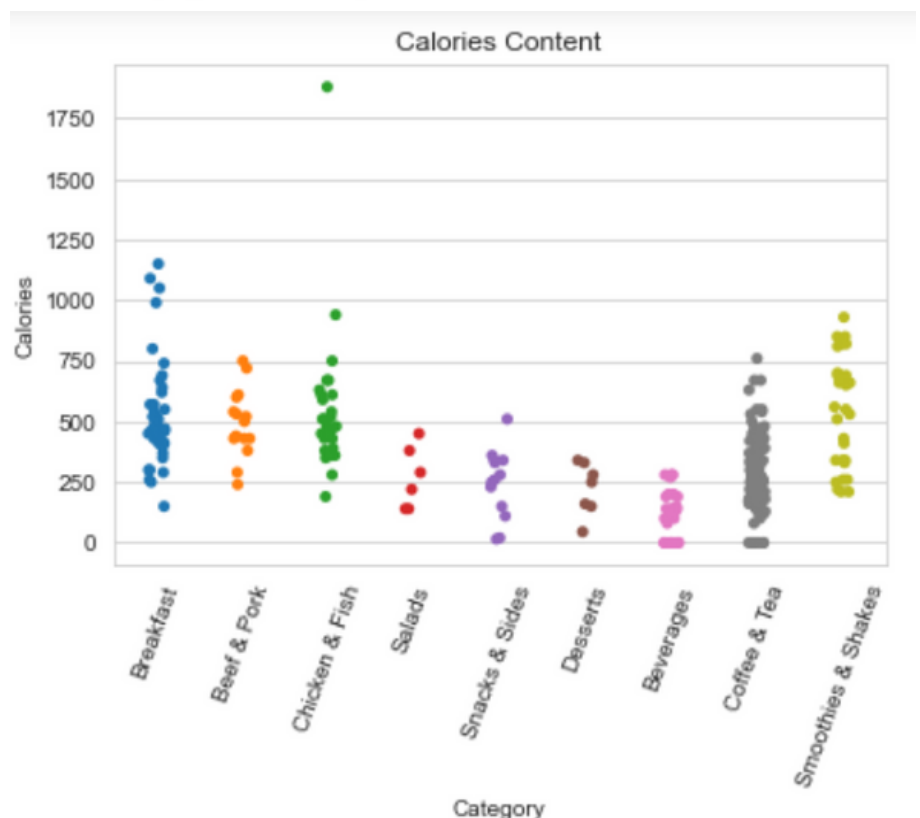


Q.5: Figure out which exact item contains a high quantity for ['Calories', 'Total Fat', 'Carbohydrates', 'Dietary Fiber', 'Sugars', 'Protein', 'Vitamin A (% Daily Value)', 'Vitamin C (% Daily Value)', 'Calcium (% Daily Value)', 'Iron (% Daily Value)'. Display summary link this:

Calories: Chicken McNuggets (40 piece) - 1880.0
 Total Fat: Chicken McNuggets (40 piece) - 118.0
 Carbohydrates: Chocolate Shake (Large) - 141.0
 Dietary Fiber: Big Breakfast with Hotcakes (Large Biscuit) - 7.0
 Sugars: McFlurry with M&M's Candies (Medium) - 128.0
 Protein: Chicken McNuggets (40 piece) - 87.0
 Vitamin A (% Daily Value): Premium Bacon Ranch Salad (without Chicken) - 170.0
 Vitamin C (% Daily Value): Minute Maid Orange Juice (Large) - 240.0
 Calcium (% Daily Value): Strawberry Shake (Large) - 70.0
 Iron (% Daily Value): Big Breakfast with Hotcakes (Regular Biscuit) - 40.0

Q.6: Draw Stripplot for each category against the following attributes ['Calories', 'Total Fat', 'Carbohydrates', 'Dietary Fiber', 'Sugars', 'Protein', 'Vitamin A (% Daily Value)', 'Vitamin C (% Daily Value)', 'Calcium (% Daily Value)', 'Iron (% Daily Value)'].

Here is one sample, you have to do it for all above mentioned attributes in list.





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Q.7: Draw a horizontal bar graph for items in each category against the **calories**.

Here is one sample for all items in **Beef & Pork**, you have to do it for items in each category. Also, write your observation.

