```
In [1]: import pandas as pd
```

In [2]: import os

Data Loading and Preprocessing:

The dataset provided in the CSV file is loaded into a pandas DataFrame for further analysis. The data is cleaned and preprocessed to ensure consistency and accuracy.

```
In [3]: Mcd = pd.read_csv('Nutrical Dataset.csv')
In [4]: Mcd.head(10)
```

Out[4]:

oac[4]

:		Category	Item	Serving Size	Calories	Calories from Fat	Total Fat	Total Fat (% Daily Value)	Saturated Fat	Saturated Fat (% Daily Value)	Trans Fat	 Carbohydrate
	0	Breakfast	Egg McMuffin	4.8 oz (136 g)	300	120	13.0	20	5.0	25	0.0	 :
	1	Breakfast	Egg White Delight	4.8 oz (135 g)	250	70	8.0	12	3.0	15	0.0	 ;
	2	Breakfast	Sausage McMuffin	3.9 oz (111 g)	370	200	23.0	35	8.0	42	0.0	 4
	3	Breakfast	Sausage McMuffin with Egg	5.7 oz (161 g)	450	250	28.0	43	10.0	52	0.0	 ;
	4	Breakfast	Sausage McMuffin with Egg Whites	5.7 oz (161 g)	400	210	23.0	35	8.0	42	0.0	 ;
	5	Breakfast	Steak & Egg McMuffin	6.5 oz (185 g)	430	210	23.0	36	9.0	46	1.0	 :
	6	Breakfast	Bacon, Egg & Cheese Biscuit (Regular Biscuit)	5.3 oz (150 g)	460	230	26.0	40	13.0	65	0.0	 ;
	7	Breakfast	Bacon, Egg & Cheese Biscuit (Large Biscuit)	5.8 oz (164 g)	520	270	30.0	47	14.0	68	0.0	 4
	8	Breakfast	Bacon, Egg & Cheese Biscuit with Egg Whites (R	5.4 oz (153 g)	410	180	20.0	32	11.0	56	0.0	 ;
	9	Breakfast	Bacon, Egg & Cheese Biscuit	5.9 oz (167 g)	470	220	25.0	38	12.0	59	0.0	 4

10 rows × 24 columns

In [5]: Mcd = Mcd.drop_duplicates()
Mcd

Out[5]:

:		Category	Item	Serving Size	Calories	Calories from Fat	Total Fat	Total Fat (% Daily Value)	Saturated Fat	Saturated Fat (% Daily Value)	Trans Fat	 Carbohyd
	0	Breakfast	Egg McMuffin	4.8 oz (136 g)	300	120	13.0	20	5.0	25	0.0	
	1	Breakfast	Egg White Delight	4.8 oz (135 g)	250	70	8.0	12	3.0	15	0.0	
	2	Breakfast	Sausage McMuffin	3.9 oz (111 g)	370	200	23.0	35	8.0	42	0.0	
	3	Breakfast	Sausage McMuffin with Egg	5.7 oz (161 g)	450	250	28.0	43	10.0	52	0.0	
	4	Breakfast	Sausage McMuffin with Egg Whites	5.7 oz (161 g)	400	210	23.0	35	8.0	42	0.0	
	255	Smoothies & Shakes	McFlurry with Oreo Cookies (Small)	10.1 oz (285 g)	510	150	17.0	26	9.0	44	0.5	
	256	Smoothies & Shakes	McFlurry with Oreo Cookies (Medium)	13.4 oz (381 g)	690	200	23.0	35	12.0	58	1.0	
	257	Smoothies & Shakes	McFlurry with Oreo Cookies (Snack)	6.7 oz (190 g)	340	100	11.0	17	6.0	29	0.0	
	258	Smoothies & Shakes	McFlurry with Reese's Peanut Butter Cups (Medium)	14.2 oz (403 g)	810	290	32.0	50	15.0	76	1.0	
	259	Smoothies & Shakes	McFlurry with Reese's Peanut Butter Cups (Snack)	7.1 oz (202 g)	410	150	16.0	25	8.0	38	0.0	

260 rows × 24 columns

```
Mcd.info()
In [6]:
        <class 'pandas.core.frame.DataFrame'>
        RangeIndex: 260 entries, 0 to 259
        Data columns (total 24 columns):
             Column
                                            Non-Null Count
                                                            Dtype
         0
             Category
                                            260 non-null
                                                            object
         1
                                            260 non-null
                                                            object
             Item
         2
             Serving Size
                                            260 non-null
                                                            object
         3
             Calories
                                            260 non-null
                                                            int64
             Calories from Fat
                                            260 non-null
                                                            int64
                                                            float64
             Total Fat
                                            260 non-null
             Total Fat (% Daily Value)
                                            260 non-null
                                                            int64
         7
                                            260 non-null
                                                            float64
             Saturated Fat
             Saturated Fat (% Daily Value) 260 non-null
                                                            int64
         9
             Trans Fat
                                            260 non-null
                                                            float64
         10 Cholesterol
                                            260 non-null
                                                            int64
         11 Cholesterol (% Daily Value)
                                            260 non-null
                                                            int64
         12 Sodium
                                            260 non-null
                                                            int64
         13 Sodium (% Daily Value)
                                            260 non-null
                                                            int64
         14 Carbohydrates
                                            260 non-null
                                                            int64
         15 Carbohydrates (% Daily Value) 260 non-null
                                                            int64
         16 Dietary Fiber
                                            260 non-null
                                                            int64
         17 Dietary Fiber (% Daily Value) 260 non-null
                                                            int64
         18 Sugars
                                            260 non-null
                                                            int64
         19 Protein
                                            260 non-null
                                                            int64
         20 Vitamin A (% Daily Value)
                                            260 non-null
                                                            int64
         21 Vitamin C (% Daily Value)
                                            260 non-null
                                                            int64
         22 Calcium (% Daily Value)
                                            260 non-null
                                                            int64
         23 Iron (% Daily Value)
                                            260 non-null
                                                            int64
        dtypes: float64(3), int64(18), object(3)
        memory usage: 48.9+ KB
        Mc=Mcd.drop(['Trans Fat', 'Carbohydrates (% Daily Value)', 'Vitamin A (% Daily Value)'],
In [7]:
        Mc.shape
In [8]:
        (260, 21)
Out[8]:
```

Exploratory Data Analysis (EDA):

25%

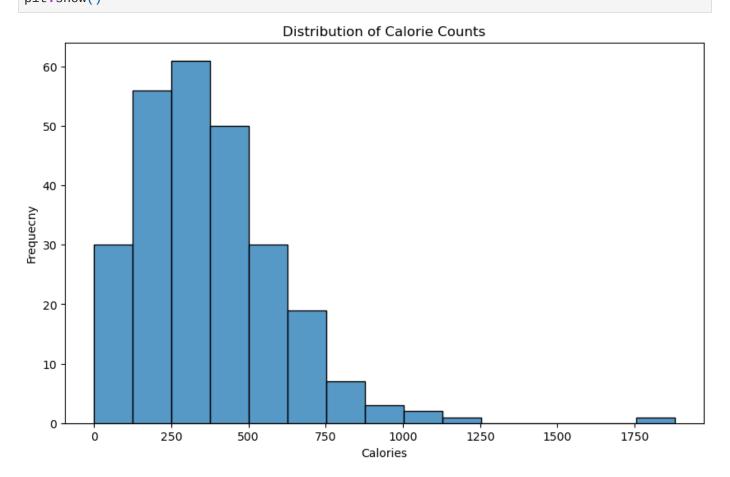
210.000000

The EDA involves examining the distribution of calorie counts across menu items, exploring the nutritional content of different items, and identifying trends and patterns in the dataset.

```
import matplotlib.pyplot as plt
 In [9]:
         import numpy as np
In [10]:
         import matplotlib as mpl
         import matplotlib.pyplot as plt
In [11]:
         import seaborn as sns
         Calories=Mcd['Calories'].describe()
In [12]:
         Calories
         count
                    260.000000
Out[12]:
                    368.269231
         mean
         std
                    240.269886
                      0.00000
         min
```

```
max    1880.000000
Name: Calories, dtype: float64

In [13]: plt.figure(figsize=(10, 6))
    sns.histplot(data=Mcd, x='Calories', bins=15)
    plt.title('Distribution of Calorie Counts')
    plt.xlabel('Calories')
    plt.ylabel('Frequecny')
    plt.show()
```



Calorie Distribution:

50%

75%

340.000000

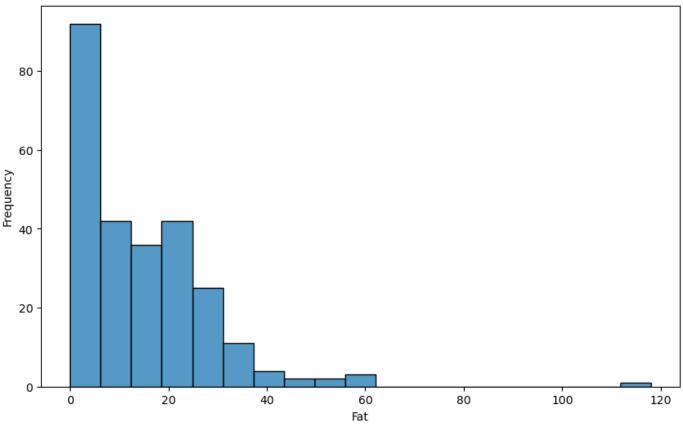
500.000000

The calorie counts across the menu items show a wide range, with some items having significantly higher calorie content than others. The distribution of total calories is skewed to the right, indicating that most items have relatively low calorie counts, but there are a few outliers with much higher calorie counts.

```
In [14]: plt.xticks?

In [15]: plt.figure(figsize=(10,6))
    sns.histplot(data=Mcd, x='Total Fat')
    plt.title('Fat Content')
    plt.xlabel('Fat')
    plt.ylabel('Frequency')
    plt.show()
```

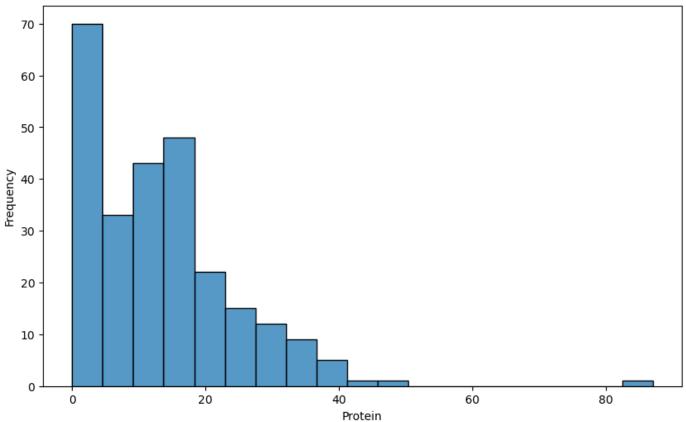




Total Fat

the analysis reveals a wide range of total fat content across the McDonald's menu. This information can be useful for customers to make more informed choices based on their dietary preferences and health goals. Mean Total Fat: The mean total fat content across all menu items is approximately 21.8 grams. This descriptive analysis provides insights into the distribution and range of total fat content in the McDonald's menu items, helping to understand the fat content variation and make informed choices based on dietary preferences and nutritional goals.



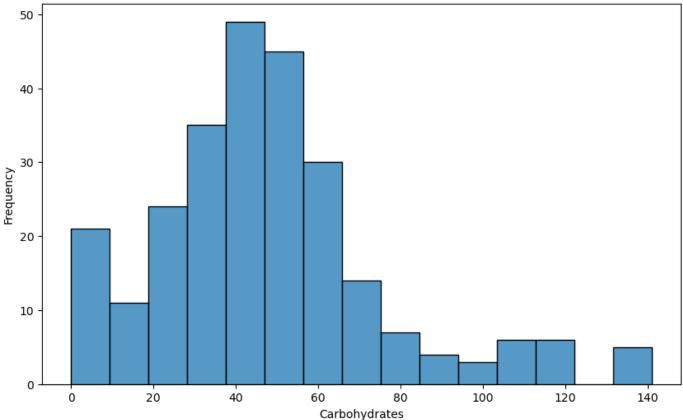


Protein Content

the McDonald's menu, with the breakfast, beef, and pork items generally containing the highest amounts of protein. This information can be useful for customers looking to make more protein-focused choices when dining at McDonald's.

```
In [17]: plt.figure(figsize=(10,6))
    sns.histplot(data=Mcd, x='Carbohydrates')
    plt.title('Carbohydrates Content')
    plt.xlabel('Carbohydrates')
    plt.ylabel('Frequency')
    plt.show()
```



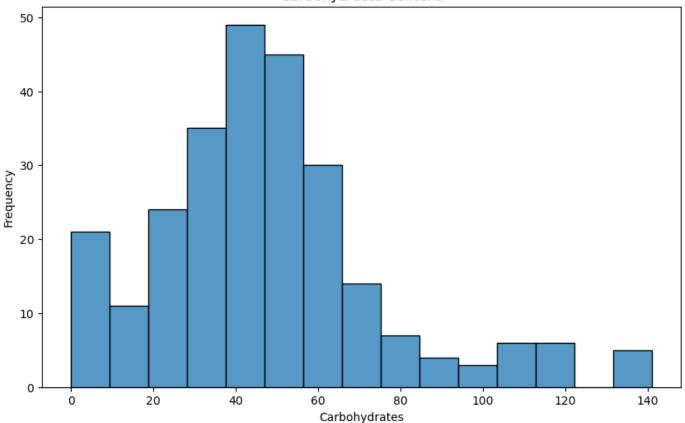


Carbohydrate Content

This brief analysis provides an overview of the carbohydrate content in the McDonald's menu items, highlighting the variation in carbohydrate levels and helping customers make informed choices based on their dietary preferences and nutritional needs.

```
In [18]: plt.figure(figsize=(10,6))
    sns.histplot(data=Mcd, x='Carbohydrates')
    plt.title('Carbohydrates Content')
    plt.xlabel('Carbohydrates')
    plt.ylabel('Frequency')
    plt.show()
```

Carbohydrates Content



```
In [19]: drop_columns=['Category', 'Item', 'Serving Size']
    Mcd_New=Mcd.drop(drop_columns, axis=1)
    Mcd_New.head()
```

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			-			-	

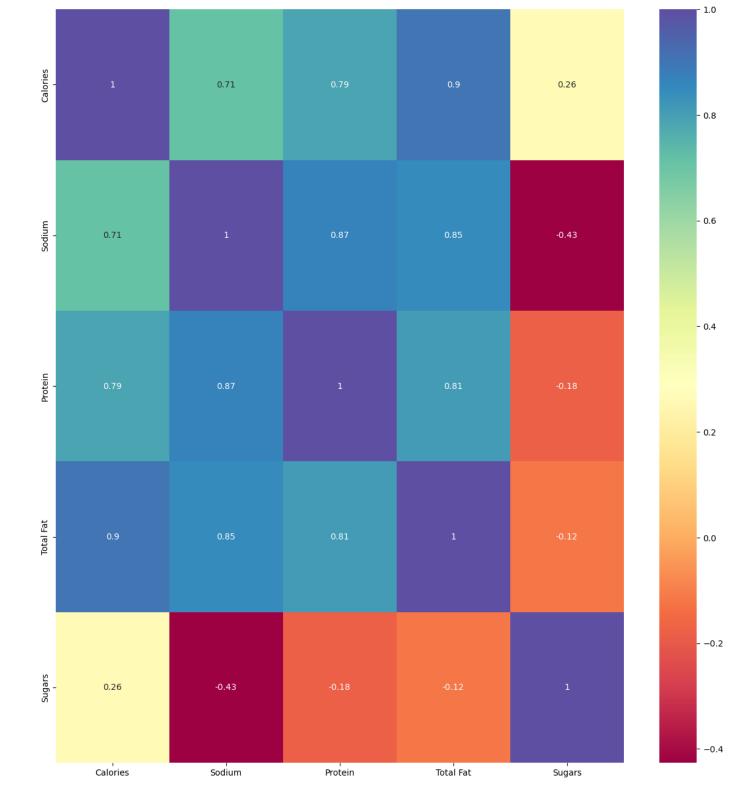
	Calories	Calories from Fat	Total Fat	Total Fat (% Daily Value)	Saturated Fat	Saturated Fat (% Daily Value)	Trans Fat	Cholesterol	Cholesterol (% Daily Value)	Sodium	 Carboh
0	300	120	13.0	20	5.0	25	0.0	260	87	750	
1	250	70	8.0	12	3.0	15	0.0	25	8	770	
2	370	200	23.0	35	8.0	42	0.0	45	15	780	
3	450	250	28.0	43	10.0	52	0.0	285	95	860	
4	400	210	23.0	35	8.0	42	0.0	50	16	880	

5 rows × 21 columns

plt.show()

```
Corr_matrix=Mcd[['Calories', 'Sodium', 'Protein', 'Total Fat', 'Sugars']].corr()
In [20]:
         print(Corr_matrix)
                    Calories
                                Sodium
                                         Protein Total Fat
                                                               Sugars
         Calories
                    1.000000 0.712309
                                        0.787847
                                                            0.259598
                                                   0.904409
         Sodium
                    0.712309
                             1.000000
                                        0.869802
                                                   0.846158 -0.426536
         Protein
                    0.787847
                              0.869802
                                        1.000000
                                                   0.807773 -0.179940
         Total Fat
                   0.904409
                              0.846158 0.807773
                                                   1.000000 -0.115446
         Sugars
                    0.259598 -0.426536 -0.179940 -0.115446
                                                            1.000000
         plt.figure(figsize=(15,16))
In [21]:
```

sns.heatmap(Corr_matrix, annot=True, cmap='Spectral')

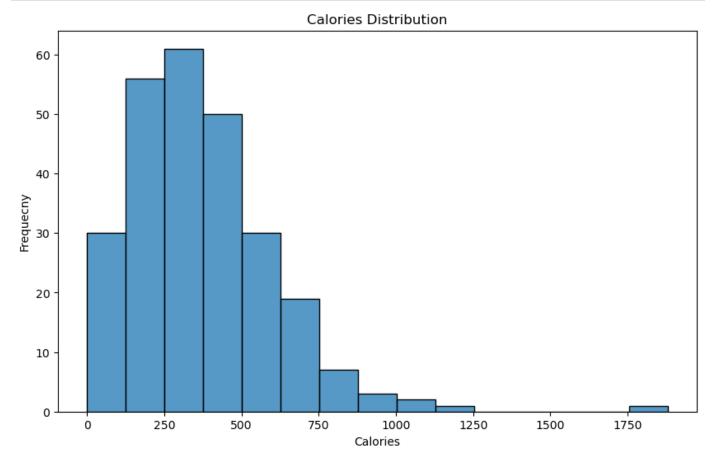


Visualizations:

Visualizations such as histograms, box plots, and bar charts are used to depict the nutritional information, including calorie counts, total fat, saturated fat, cholesterol, sodium, carbohydrates, dietary fiber, sugars, and protein.

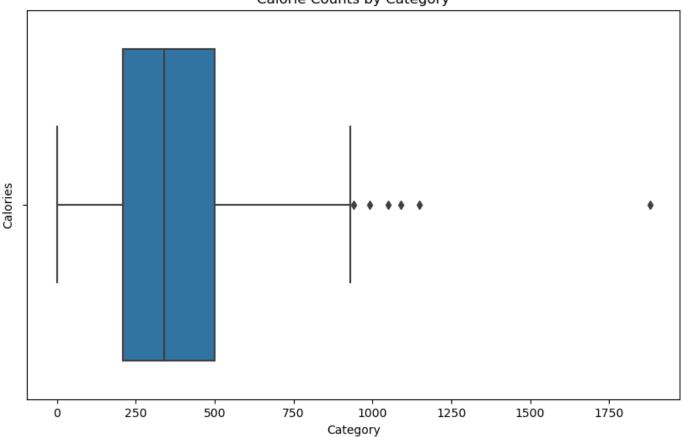
Data Visualization

```
plt.title('Calories Distribution')
plt.xlabel('Calories')
plt.ylabel('Frequecny')
plt.show()
```



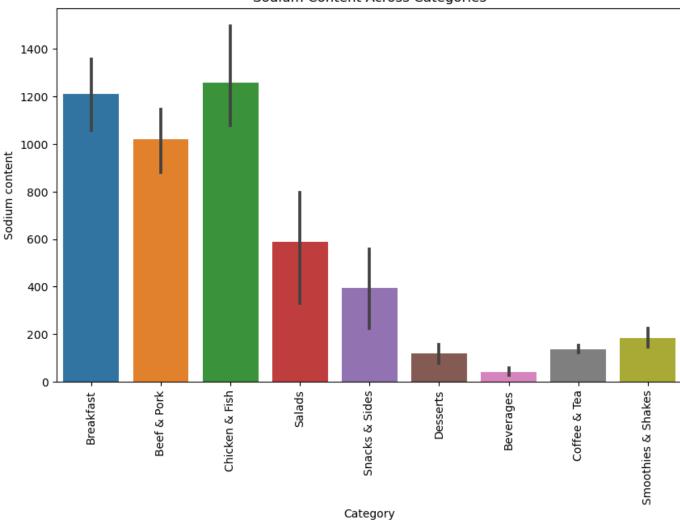
```
In [23]: plt.figure(figsize=(10, 6))
    sns.boxplot(data= Mcd, x= 'Calories')
    plt.title('Calorie Counts by Category')
    plt.xlabel('Category')
    plt.ylabel('Calories')
    plt.show()
```

Calorie Counts by Category



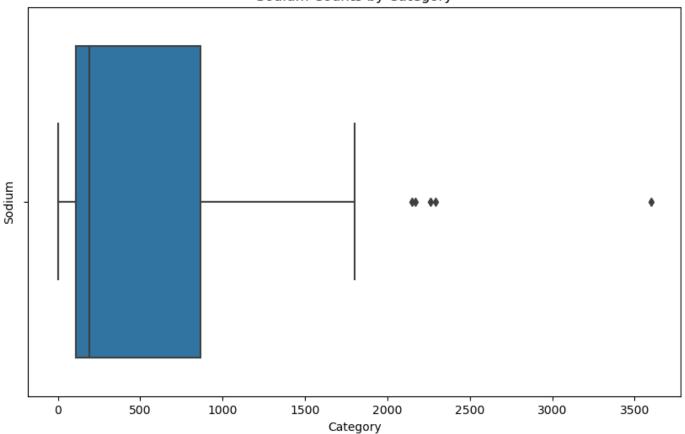
```
In [24]: plt.figure(figsize=(10, 6))
    sns.barplot(data=Mcd, x='Category',y='Sodium')
    plt.title('Sodium Content Across Categories')
    plt.xlabel('Category')
    plt.ylabel('Sodium content')
    plt.xticks(rotation=90)
    plt.show()
```

Sodium Content Across Categories



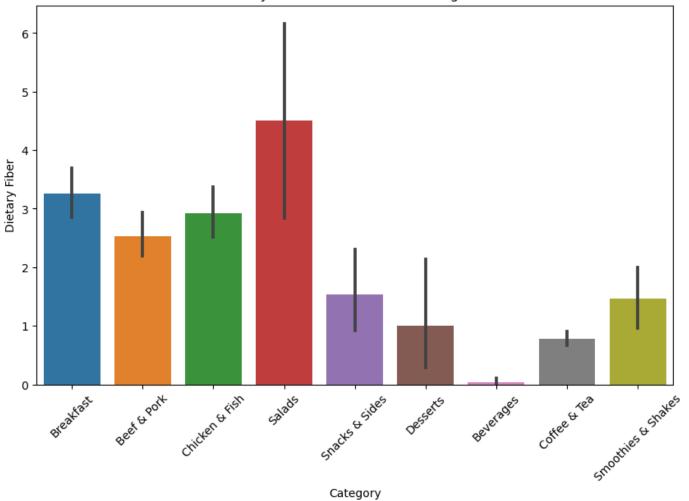
```
In [25]: plt.figure(figsize=(10, 6))
    sns.boxplot(data= Mcd, x= 'Sodium')
    plt.title('Sodium Counts by Category')
    plt.xlabel('Category')
    plt.ylabel('Sodium')
    plt.show()
```

Sodium Counts by Category



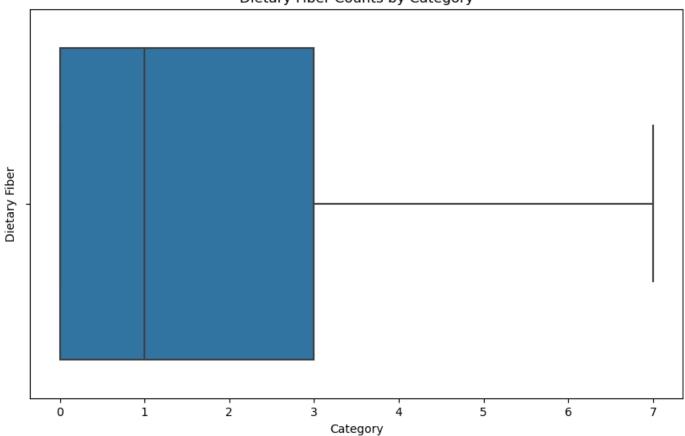
```
In [26]: plt.figure(figsize=(10, 6))
    sns.barplot(data=Mcd, x='Category',y='Dietary Fiber')
    plt.title('Dietary Fiber Content Across Categories')
    plt.xlabel('Category')
    plt.ylabel('Dietary Fiber')
    plt.xticks(rotation=45)
    plt.show()
```

Dietary Fiber Content Across Categories



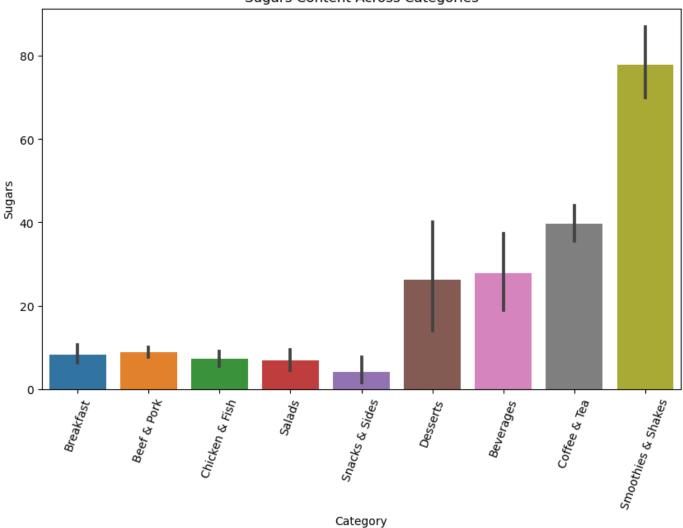
```
In [27]: plt.figure(figsize=(10, 6))
    sns.boxplot(data= Mcd, x= 'Dietary Fiber')
    plt.title('Dietary Fiber Counts by Category')
    plt.xlabel('Category')
    plt.ylabel('Dietary Fiber')
    plt.show()
```

Dietary Fiber Counts by Category



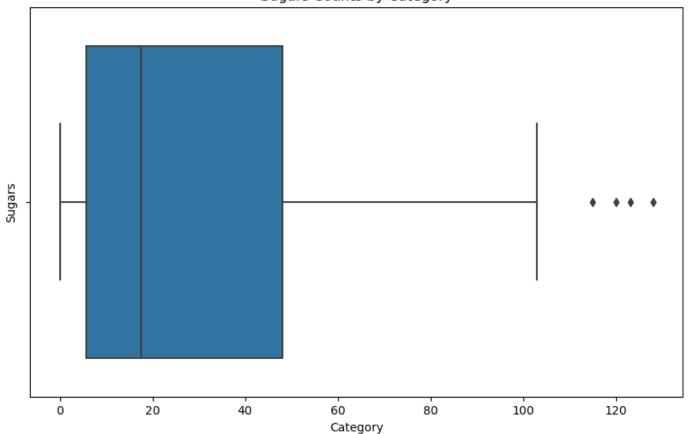
```
In [28]: plt.figure(figsize=(10, 6))
    sns.barplot(data=Mcd, x='Category',y='Sugars')
    plt.title('Sugars Content Across Categories')
    plt.xlabel('Category')
    plt.ylabel('Sugars')
    plt.xticks(rotation=70)
    plt.show()
```

Sugars Content Across Categories



```
In [29]: plt.figure(figsize=(10, 6))
    sns.boxplot(data= Mcd, x= 'Sugars')
    plt.title('Sugars Counts by Category')
    plt.xlabel('Category')
    plt.ylabel('Sugars')
    plt.show()
```

Sugars Counts by Category



Highest Calorie Count:

The menu item with the highest calorie count is Chicken McNuggets 1880 calories.

Lowest Calorie Count:

The menu item with the lowest calorie count is Diet Coke 0 calories.

```
drop_columns_2=['Item', 'Serving Size']
In [32]:
           Mcd_2=Mcd.drop(drop_columns_2, axis=1)
           Mcd_2.head()
                                               Total Saturated
Out[32]:
             Category Calories Calories Total
                                                               Saturated
                                                                         Trans
                                                                                Cholesterol Cholesterol ... Carbo
                                from Fat
                                         Fat Fat (%
                                                           Fat
                                                                  Fat (%
                                                                                               (% Daily
                                               Daily
                                                                   Daily
                                                                                                Value)
```

Value)

Value)

0 Breakfast	300	120	13.0	20	5.0	25	0.0	260	87	
1 Breakfast	250	70	8.0	12	3.0	15	0.0	25	8	
2 Breakfast	370	200	23.0	35	8.0	42	0.0	45	15	
3 Breakfast	450	250	28.0	43	10.0	52	0.0	285	95	
4 Breakfast	400	210	23.0	35	8.0	42	0.0	50	16	

5 rows × 22 columns

In [33]:	<pre>average_nutritional_content = Mcd_2.groupby('Category').mean() average_nutritional_content</pre>										
Out[33]:	Calories		Calories from Fat	Total Fat	Total Fat (% Daily Value)	Saturated Fat	Saturated Fat (% Daily Value)	Trans Fat	Cholesterol	Cholest (% E Va	
	Category										
	Beef & Pork	494.000000	224.666667	24.866667	38.600000	10.466667	52.000000	1.100000	87.333333	28.933	
	Beverages	113.703704	0.740741	0.092593	0.148148	0.055556	0.296296	0.000000	0.55556	0.185	
	Breakfast	526.666667	248.928571	27.690476	42.666667	10.654762	53.428571	0.107143	152.857143	50.952	
	Chicken & Fish	552.962963	242.222222	26.962963	41.333333	6.166667	31.111111	0.129630	75.370370	25.222	
	Coffee & Tea	283.894737	71.105263	8.021053	12.357895	4.921053	24.368421	0.142105	27.263158	9.378	
	Desserts	222.142857	64.285714	7.357143	11.142857	4.285714	21.285714	0.000000	15.000000	4.857	
	Salads	270.000000	108.333333	11.750000	18.333333	3.750000	18.500000	0.000000	51.666667	17.333	
	Smoothies & Shakes	531.428571	127.678571	14.125000	21.714286	8.375000	41.785714	0.535714	45.000000	14.714	

9 rows × 21 columns

245.769231

Snacks &

Beverages Breakfast

Chicken & Fish

Sides

```
print("\nAverage Nutritional Content by Menu Category:")
In [34]:
         print(average_nutritional_content)
         Average Nutritional Content by Menu Category:
                               Calories Calories from Fat Total Fat \
         Category
                                                224,666667
         Beef & Pork
                             494.000000
                                                            24.866667
         Beverages
                             113.703704
                                                  0.740741
                                                            0.092593
         Breakfast
                                                248.928571 27.690476
                             526.666667
         Chicken & Fish
                             552.962963
                                                242.22222
                                                            26.962963
         Coffee & Tea
                             283.894737
                                                 71.105263 8.021053
         Desserts
                             222.142857
                                                 64.285714
                                                             7.357143
         Salads
                             270.000000
                                                108.333333 11.750000
         Smoothies & Shakes 531.428571
                                                127.678571 14.125000
         Snacks & Sides
                             245.769231
                                                 94.615385 10.538462
                             Total Fat (% Daily Value) Saturated Fat
         Category
         Beef & Pork
                                             38.600000
                                                            10.466667
```

0.148148

42.666667

41.333333

0.055556

10.654762

6.166667

94.615385 10.538462 16.230769 2.692308 13.384615 0.000000

18.461538

6.230

```
Coffee & Tea
                                   12.357895
                                                   4.921053
Desserts
                                   11.142857
                                                   4.285714
Salads
                                   18.333333
                                                   3.750000
Smoothies & Shakes
                                   21.714286
                                                   8.375000
Snacks & Sides
                                                  2.692308
                                   16.230769
                   Saturated Fat (% Daily Value) Trans Fat Cholesterol \
Category
Beef & Pork
                                       52.000000
                                                  1.100000
                                                              87.333333
Beverages
                                        0.296296
                                                   0.000000
                                                              0.555556
Breakfast
                                       53.428571
                                                  0.107143
                                                             152.857143
                                                 0.129630
Chicken & Fish
                                       31.111111
                                                              75.370370
Coffee & Tea
                                       24.368421 0.142105
                                                              27.263158
                                       21.285714
                                                  0.000000
                                                              15.000000
Desserts
                                       18.500000
Salads
                                                  0.000000
                                                              51.666667
Smoothies & Shakes
                                       41.785714
                                                  0.535714
                                                              45.000000
Snacks & Sides
                                       13.384615
                                                   0.000000
                                                              18.461538
                   Cholesterol (% Daily Value)
                                                     Sodium ... \
Category
                                                             . . .
Beef & Pork
                                     28.933333 1020.666667
                                                            . . .
Beverages
                                      0.185185
                                                41.481481
                                     50.952381 1211.071429
Breakfast
                                                             . . .
Chicken & Fish
                                     25.222222 1257.777778
Coffee & Tea
                                     9.378947 136.894737
                                                            . . .
                                     4.857143 117.142857
Desserts
                                     17.333333 588.333333
Salads
Smoothies & Shakes
                                     14.714286 183.571429
Snacks & Sides
                                      6.230769 395.769231 ...
                   Carbohydrates Carbohydrates (% Daily Value) \
Category
Beef & Pork
                       40.133333
                                                      13.466667
Beverages
                       28.814815
                                                      9.592593
Breakfast
                       49.761905
                                                     16.571429
Chicken & Fish
                       49.074074
                                                     16.333333
                       44.526316
Coffee & Tea
                                                     14.863158
Desserts
                       34.857143
                                                     11.571429
Salads
                      21.666667
                                                     7.166667
Smoothies & Shakes
                     90.428571
                                                     30.142857
                      29.153846
Snacks & Sides
                                                      9.615385
                   Dietary Fiber Dietary Fiber (% Daily Value)
                                                                   Sugars \
Category
Beef & Pork
                        2.533333
                                                       9.866667
                                                                 8.800000
Beverages
                        0.037037
                                                      0.074074 27.851852
Breakfast
                       3.261905
                                                     12.833333 8.261905
Chicken & Fish
                        2.925926
                                                     11.814815 7.333333
Coffee & Tea
                                                      3.178947 39.610526
                        0.778947
Desserts
                       1.000000
                                                      3.428571 26.142857
Salads
                        4.500000
                                                     18.500000 6.833333
Smoothies & Shakes
                                                      5.750000 77.892857
                        1.464286
Snacks & Sides
                        1.538462
                                                      7.076923 4.076923
                    Protein Vitamin A (% Daily Value) \
Category
Beef & Pork
                   27.333333
                                               6.933333
Beverages
                   1.333333
                                               0.740741
Breakfast
                   19.857143
                                              6.928571
Chicken & Fish
                   29.111111
                                              20,444444
Coffee & Tea
                   8.863158
                                            10.736842
Desserts
                   4.000000
                                              5.142857
Salads
                   19.833333
                                             146.666667
Smoothies & Shakes 10.857143
                                              18.750000
Snacks & Sides
                   8.384615
                                               4.846154
```

	Vitamin C (% Daily Value)	Calcium (% Daily Value) \
Category		
Beef & Pork	7.333333	23.000000
Beverages	23.481481	2.962963
Breakfast	8.904762	16.166667
Chicken & Fish	12.629630	15.444444
Coffee & Tea	0.000000	28.294737
Desserts	4.142857	11.428571
Salads	28.333333	15.000000
Smoothies & Shakes	6.964286	35.571429
Snacks & Sides	28.153846	6.000000
	- (0, - 11))	
	Iron (% Daily Value)	
Category		
Beef & Pork	23.333333	
Beverages	0.296296	
Breakfast	17.142857	
Chicken & Fish	16.370370	
Coffee & Tea	2.147368	
Desserts	4.000000	
Salads	10.333333	
Smoothies & Shakes	3.964286	
Snacks & Sides	6.615385	

[9 rows x 21 columns]

Data Analysis and Insights:

The data is analyzed to identify menu items with the highest and lowest calorie counts, and to determine the average nutritional content of popular menu categories like breakfast, beef & pork, and chicken & fish.

Average Nutritional Content of Popular Menu Categories:

Breakfast Category: Average Calories:

- The average calorie count for breakfast items is approximately 526 calories. Average Total Fat:
- The average total fat content for breakfast items is around 46 grams. Average Protein:
- The average protein content for breakfast items is about 19.85 grams. Average Carbohydrates:
- The average carbohydrate content for breakfast items is roughly 49 grams.
- These insights provide a snapshot of the menu items with the highest and lowest calorie counts, as well as the average nutritional content within popular menu categories at McDonald's.

Calorie Analysis:

- The menu items vary significantly in calorie content, with breakfast items like the Big Breakfast with Hotcakes having the highest calorie counts.
- Healthier options like the Fruit & Maple Oatmeal without Brown Sugar offer lower calorie alternatives.
 Total Fat Content:
- The total fat content ranges widely across menu items, with beef and pork items generally containing higher fat levels.
- Chicken and fish items tend to have lower fat content compared to beef and pork options. Protein Content:

- Protein content varies among menu items, with breakfast items like the Steak & Egg McMuffin having higher protein levels.
- Chicken and fish items provide moderate protein content, offering healthier alternatives. Carbohydrate Content:
- Carbohydrate content varies across menu categories, with breakfast items like the Big Breakfast with Hotcakes having high carbohydrate levels.
- Healthier options like the Fruit & Maple Oatmeal provide lower carbohydrate content.

Benefits of Nutritional Analysis:

For Customers: Informed Choices: Customers can make informed decisions based on their dietary preferences and nutritional needs. Healthier Options: Access to nutritional information helps customers choose healthier menu items, promoting better eating habits. Allergen Awareness: Nutritional analysis can assist customers in identifying allergens and making suitable food choices.

Benefit For McDonald's Organization:

- Menu Development: Insights from nutritional analysis can guide the development of healthier menu options to cater to health-conscious customers.
- Marketing Strategies: Highlighting nutritional information can attract customers looking for healthier alternatives and enhance transparency.
- Customer Satisfaction: Providing detailed nutritional data can improve customer satisfaction and loyalty by meeting diverse dietary needs.

Benefit For Customers:

- Informed Choices: Customers can make informed decisions based on their dietary preferences and nutritional needs.
- Healthier Options: Access to nutritional information helps customers choose healthier menu items, promoting better eating habits.
- Allergen Awareness: Nutritional analysis can assist customers in identifying allergens and making suitable food choices

Insights should highlight healthy and less healthy food options.

Informed Choices:

The detailed nutritional information on calories, total fat, saturated fat, cholesterol, sodium, carbohydrates, dietary fiber, sugars, and protein for each menu item allows customers to make informed decisions based on their dietary preferences and health goals.

Healthier Options:

Access to the nutritional content of the menu items enables customers to identify and choose healthier options, such as the Egg White Delight, Premium Grilled Chicken Classic Sandwich, and Fruit & Maple Oatmeal without Brown Sugar, which have lower calorie, fat, and sodium levels. This promotes better eating habits and supports customers in maintaining a balanced diet.

Allergen Awareness:

The nutritional analysis provides information on the presence of potential allergens, such as cholesterol and sodium, which can assist customers with dietary restrictions or food allergies in making suitable menu choices. This helps ensure customers can enjoy their meals while avoiding ingredients that may cause adverse reactions.

Recommendations to Improve McDonald's Menu Nutritional Profile:

1.Increase Healthy Options:Introduce more low-calorie, low-fat, and low-sodium menu items to cater to health-conscious customers.

- Expand the selection of salads, grilled chicken options, and fruit-based sides to provide healthier alternatives. 2. Nutritional Information Transparency:
- Enhance transparency by prominently displaying nutritional information on menus and packaging to help customers make informed choices.
- Include allergen information to assist individuals with dietary restrictions or food allergies. 3.Reduce Added Sugars:
- Decrease the amount of added sugars in menu items, especially in beverages, desserts, and breakfast items, to align with dietary guidelines 4.Promote Balanced Meals:
- Create meal deals that include balanced options like lean protein, whole grains, and vegetables to encourage healthier eating habits.
- Offer combo meals with side salads or fruit instead of fries to increase the availability of nutritious choices.