

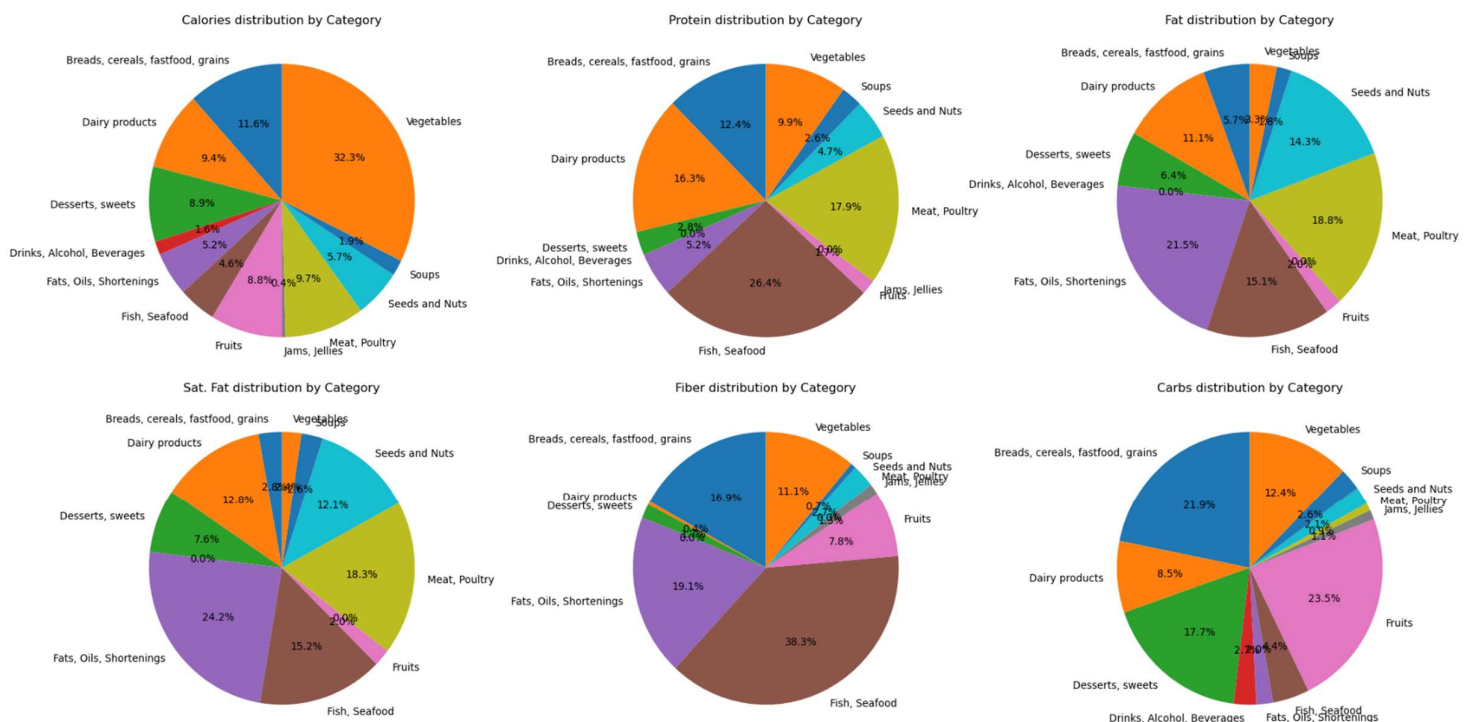
Nutritional analysis

- Dataset Description

The dataset used for this analysis contains the following columns:

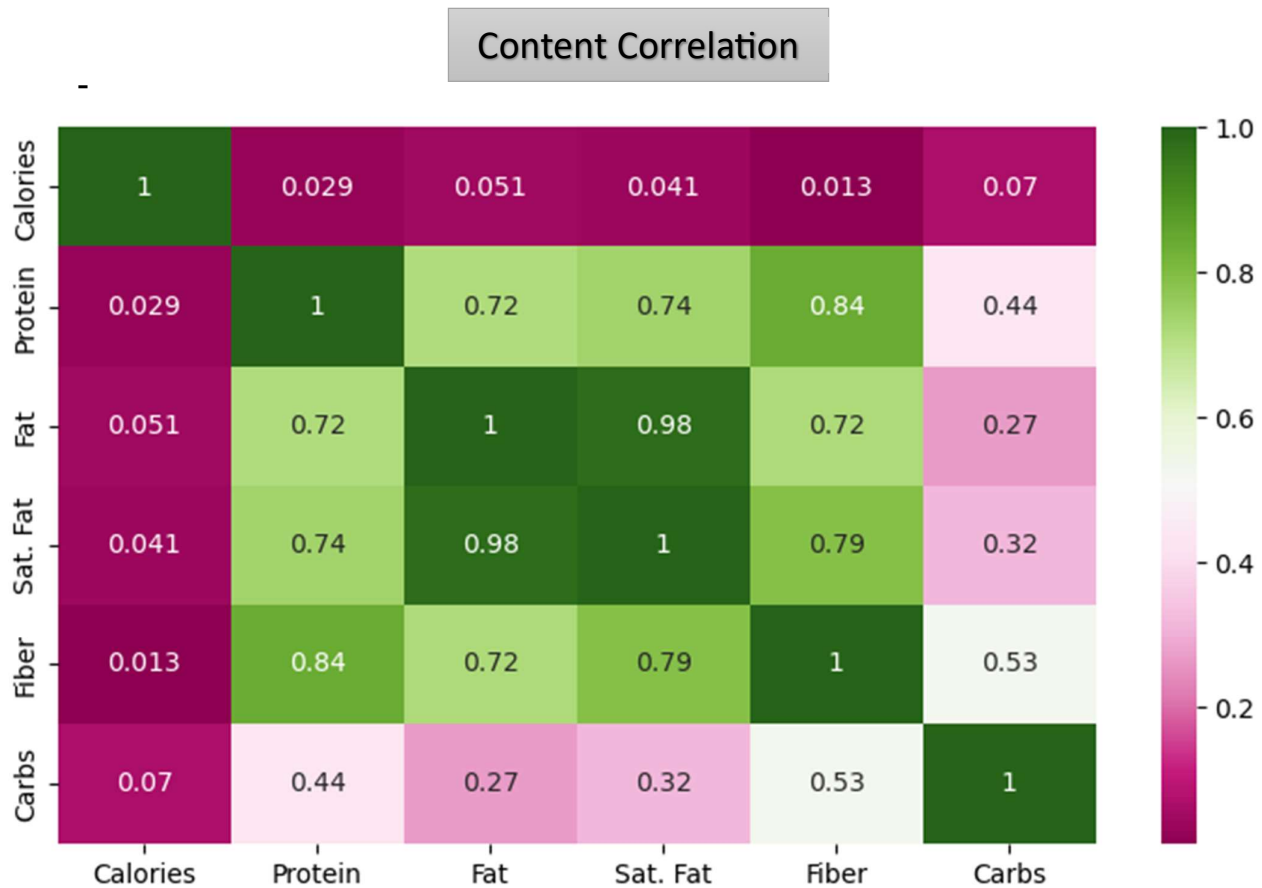
- **Food:** Name of the food item.
- **Measure:** Standard measurement of the food item.
- **Grams:** Weight of the food item in grams.
- **Calories:** Caloric content of the food item.
- **Protein:** Protein content in the food item.
- **Fat:** Total fat content in the food item.
- **Sat. Fat:** Saturated fat content in the food item.
- **Fiber:** Fiber content in the food item.
- **Carbs:** Carbohydrate content in the food item.
- **Category:** Category to which the food item belongs.

Distribution of Contents in Food Categories



- Aim

The aim of this project is to utilize Excel for data cleaning and Python for data visualization and analysis to generate a comprehensive nutritional insights report. This report aims to assist individuals in making informed decisions when selecting food items based on their nutritional content within each category of taste.



High Correlations:

- Fat and Saturated Fat: Strongly related due to their nature.
- Protein and Saturated Fat: Strongly related, especially in high-fat protein sources.
- Fiber and Protein: High correlation due to the presence of fiber-rich protein sources.

Moderate Correlations:

- Fiber and Fat: Moderate association due to high-fiber foods sometimes containing fats.
- Fiber and Carbs: Moderate correlation as many high-fiber foods are also high in carbs.
- Carbs and Protein: Moderate association as some foods contain both nutrients.

Fats and Saturated Fat

High

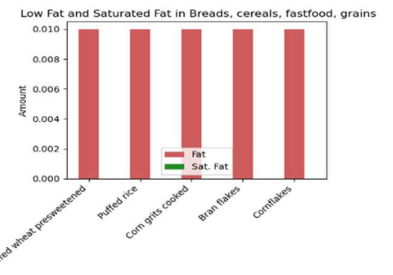
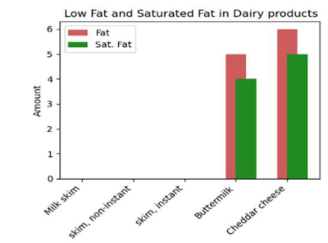
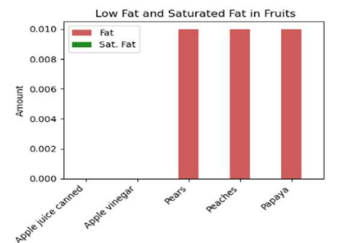
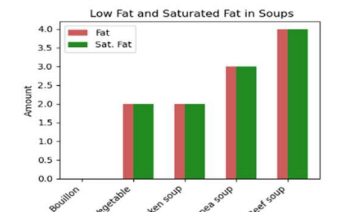
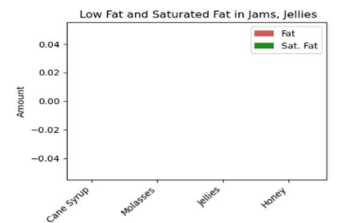
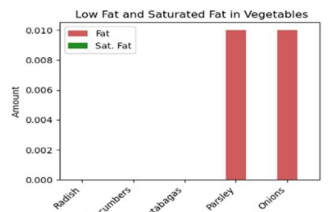
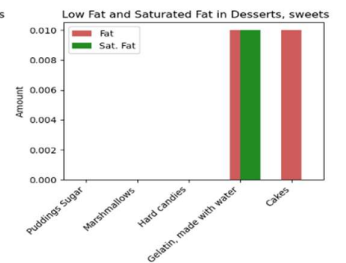
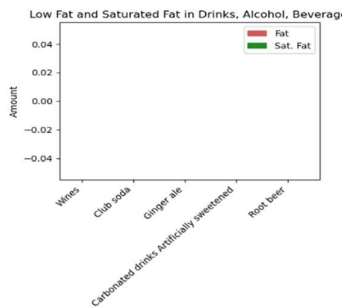
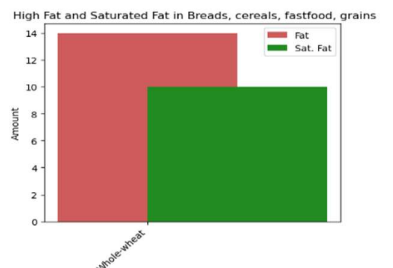
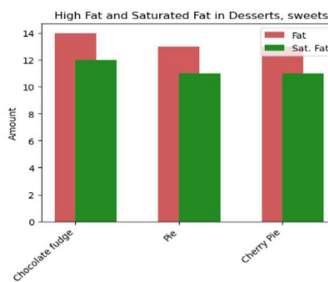
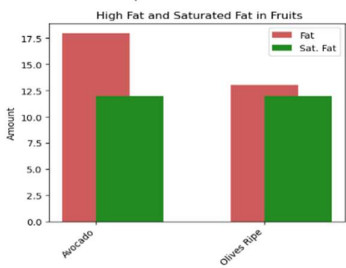
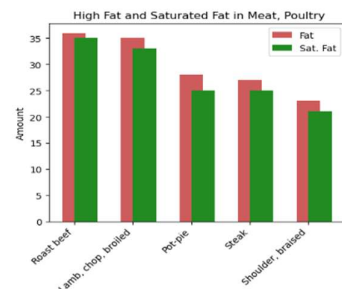
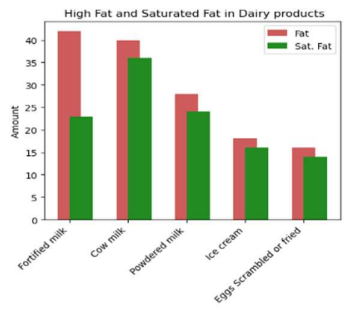
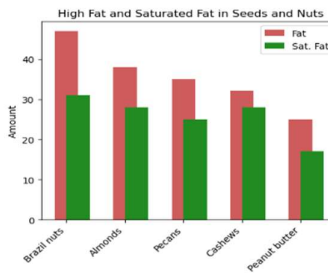
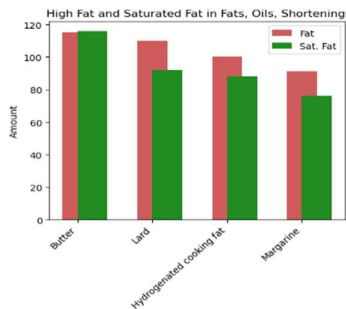
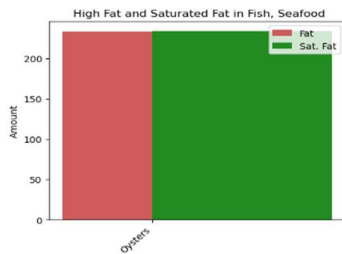
Greater than 0.80 Quantile

Low

Less than 0.75 Quantile

Category	Food
Fish, Seafood	Oysters
Fats, Oils, Shortenings	Butter, Lard, Hydrogenated Cooking fat
Seeds and Nuts	Brazil Nuts, Almonds
Dairy Products	Fortified milk, Cow milk
Meat, Poultry	Roast beef, Lamb - Chop, broiled, Pot-pie
Fruit	Avocado, Olives ripe
Desserts, Sweets	Chocolate Fudge, Pie
Breads, cereals, fast food, grains	Whole wheat

Category	Food
Fats, Oils, Shortenings	Butter, Lard, Hydrogenated Cooking fat
Dairy Products	Milk skim, Buttermilk, Cheddar cheese
Fruit	Apple, Pear, Peaches
Desserts, Sweets	Puddings Sugar, Marshmallows
Breads, cereals, fast food, grains	Puffed wheat, Puffed rice, Cornflakes
Vegetables	Raddish, Cucumbers, Rutabagas
Jams, Jellies	Cane Syrup, Molasses, Jellies, Honey
Soup	Bouillon, Vegetable, Chicken soup



Protein and Fats

High

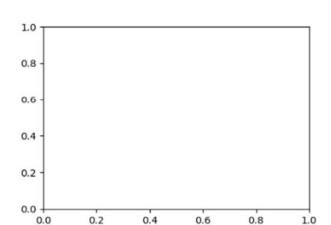
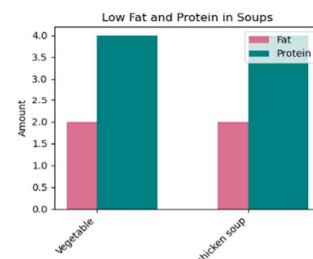
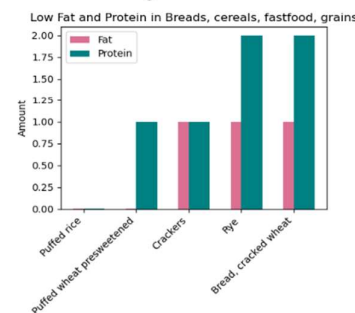
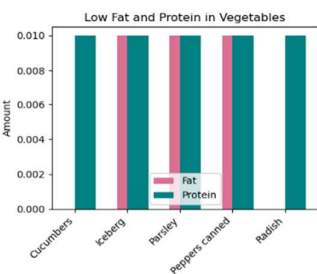
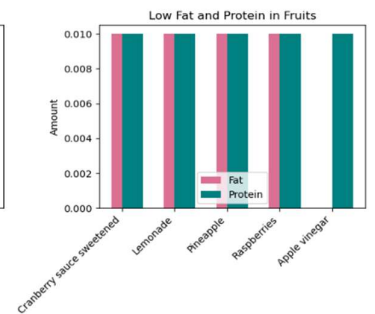
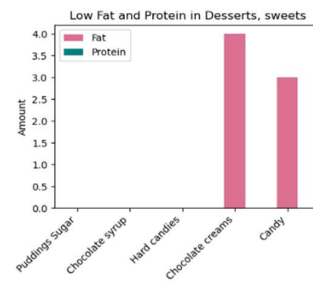
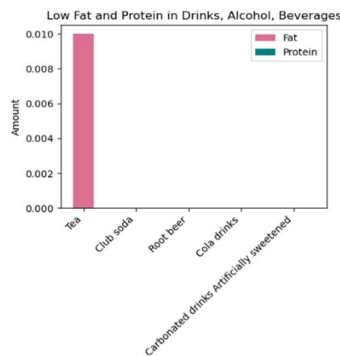
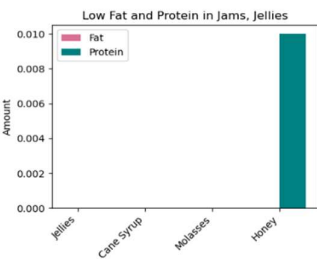
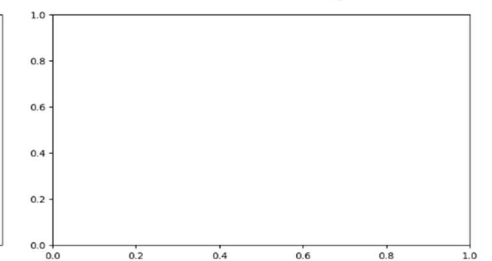
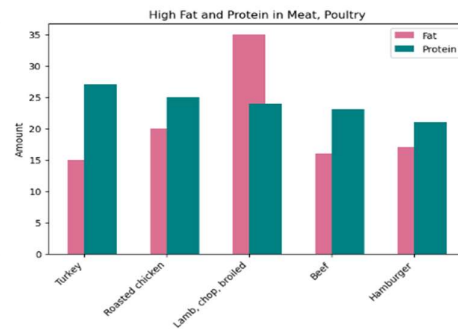
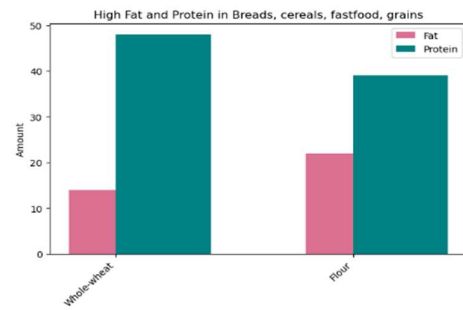
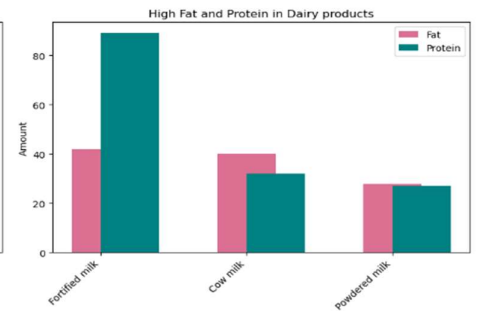
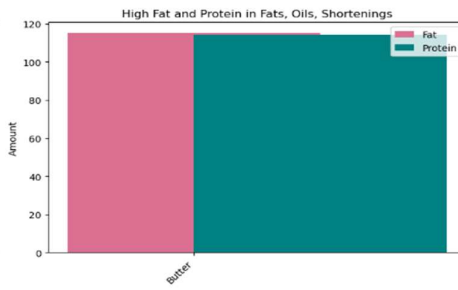
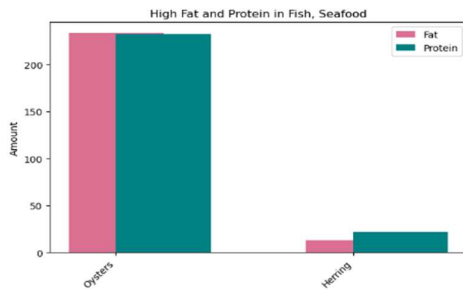
Greater than 0.80 Quantile

Low

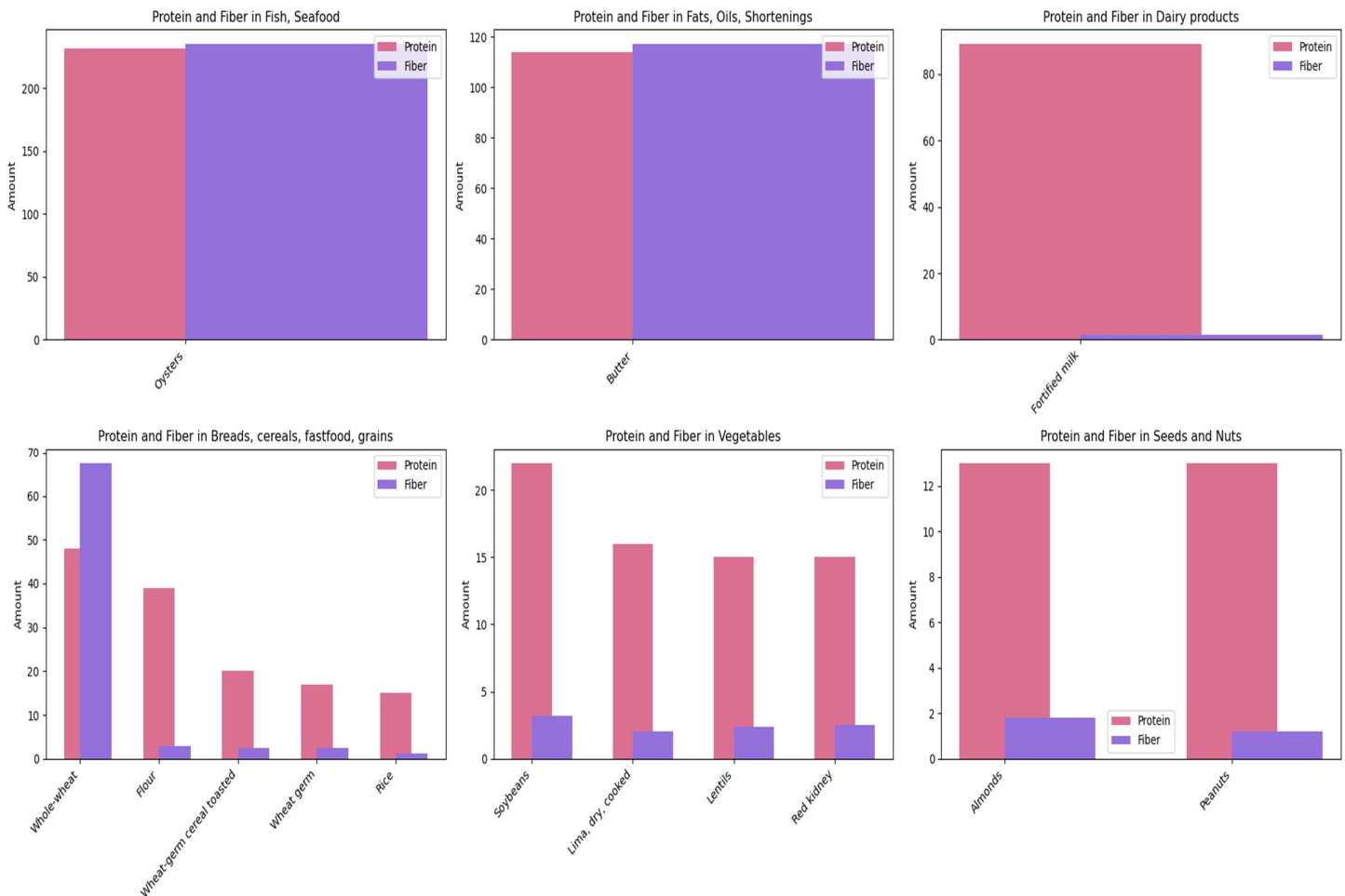
Less than 0.60 Quantile

Category	Food
Fish, Seafood	Oysters
Fats, Oils, Shortenings	Butter
Dairy Products	Fortified milk, Cow milk
Meat, Poultry	Lamb - Chop, broiled, Turkey
Breads, cereals, fast food, grains	Whole wheat, Flour

Category	Food
Fruit	Craberries, Lemonade, Pineapple
Desserts, Sweets	Puddings Sugar, Chocolate Syrup
Breads, cereals, fast food, grains	Puffed wheat, Puffed rice, Crackers
Vegetables	Cucumbers, Iceberg, Parsley
Jams, Jellies	Cane Syrup, Molasses, Jellies, Honey
Soup	Vegetable, Chicken soup



High Protein and High Fiber



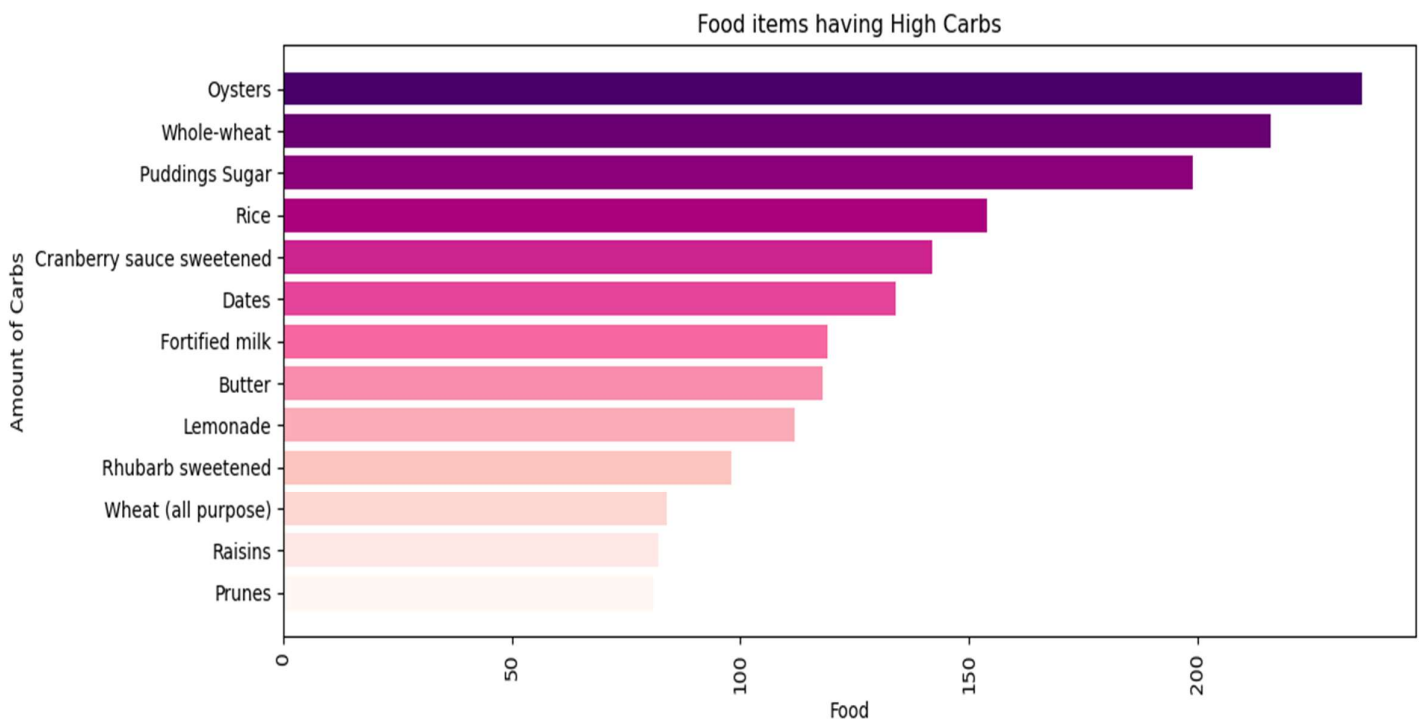
Include as Good Nutrients: Whole wheat and almonds can definitely be included in the "good nutrients" category due to their high fiber, healthy fats, and protein content.

Moderate Consumption: Oysters and fortified milk can be included but should be consumed in moderation, especially if they are high in saturated fat.

Limit: Butter should be limited due to its high saturated fat content.

Carbohydrates

- **Simple Carbohydrates** are composed of one or two sugar molecules and are quickly digested and absorbed. They often cause rapid spikes in blood sugar levels.
- **Complex carbohydrates** are made up of long chains of sugar molecules and take longer to digest. They provide a more gradual and sustained release of energy.



Carbohydrate Classification

Simple Carbohydrates	Complex Carbohydrates
Cranberry sauce sweetened	Rice
Dates	Wheat (all-purpose)
Fortified milk	Whole-wheat
Lemonade	
Prunes	
Puddings Sugar	
Raisins	
Rhubarb sweetened	

Nutritional Insights Report

➤ Meat and Poultry

- **Beef and Roasted Chicken:** These are excellent sources of protein and relatively low in fats.

➤ Fish and Seafood

- **Oysters:** High in protein, fiber, and fats. Should be consumed in moderation.
- **Shrimps, Lobster, Clams:** High in fiber and protein, but low in fat, making them excellent choices for a healthy diet.

➤ Vegetables

- **Soybeans, Lentils, Red Kidney Beans:** High in protein.
- **Radishes, Cucumbers, Rutabagas (Root Vegetable):** These vegetables have no fats, making them great for weight management.

➤ Dairy Products

- **Milk:** High in protein and fats. Skim milk, however, is a lower-fat alternative.
- **Ice Cream:** High in protein but also high in fats.
- **Cheddar Cheese:** Low in fat and high in protein, making it a good dairy option.

➤ Breads, Cereals, Fast Food, and Grains

- **Rice, Wheat (all-purpose):** High in carbohydrates and classified as complex carbs, which should be consumed in moderation.
- **Wheat (whole) and Corn Meal:** Moderately high in carbs, better alternatives than all-purpose wheat.
- **Oatmeal:** Low in carbs and high in fiber, an excellent breakfast choice.

➤ Soups

- **Bouillon, Vegetable, Chicken Soup:** Low in fats and high in protein, making them a nutritious option.

➤ **Seeds and Nuts**

- **Almonds, Sunflower Seeds, Peanuts:** High in protein, fiber, and healthy fats, making them a valuable addition to a balanced diet.

➤ **Fruits**

- **Blackberries, Dates, Watermelons, Cantaloupe:** Rich in fibers, essential for digestive health.

-

➤ **Fats, Oils, and Shortenings**

- **Yolks:** Contain fats but in acceptable amounts for a balanced diet.
- **Butter:** High in fats, saturated fats, protein, fiber, carbs, and calories. Due to its high saturated fat content, it is considered extremely less healthy.

➤ **Desserts and Sweets**

- **Chocolate Syrup:** Contains no protein, fat, saturated fat, or fiber but is moderately high in calories.

➤ **Jams and Jellies**

- **Molasses:** The most appropriate food choice in this category.

This report highlights the nutritional content of various food categories, helping individuals make informed dietary choices.

It emphasizes the importance of consuming a balanced diet with the right amount of nutrients from different food groups.
