

NUTRITIONAL BENEFITS IN CEREALS



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OBJECTIVE

WHAT IS OUR GOAL???

A detailed analysis on the Breakfast Cereals available on the market_

- To understand the nutritional benefits
- To get a view on the Contents in these Cereals
- To find the Correlations of the contents in the cereal
- Does the brands following the FDA recommendations



About the Data

WHAT IS IN THERE ?

A multivariate dataset describing 77 commonly available breakfast cereals based on the information now available on the newly mandated F & DA food label.

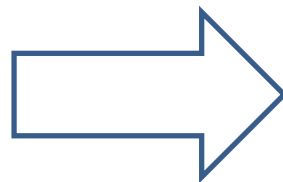
- 77 Cereals with 16 features
- Brands : American Home Food Products, General Mills, Kellogg's, Nabisco, Post, Quaker Oats, Ralston Purina

POINTS TO REMEMBER

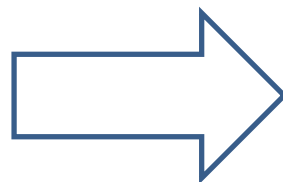
- Adult should consume between **20 and 35 g** of dietary fibre per day
- The recommended daily intake (RDI) for calories is **2200 for women and 2900 for men**
- calories come in 3 food components:
 - ✓ **9 calories per grams of fat**
 - ✓ **4 of carbohydrate and protein**
- No more than **10 %** of calories should be consumed from simple carbohydrate(sugar) and no more than **30%** should come from Fat
- RDI of protein is **50g for women and 63g for men**
- The balance of Calories should be consumed in the form of Complex Carbohydrates



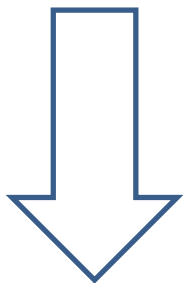
KEY INDICATORS



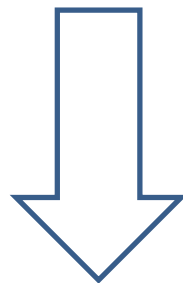
77
TOTAL CEREALS



7
TOTAL BRANDS



36
TOP SHELF



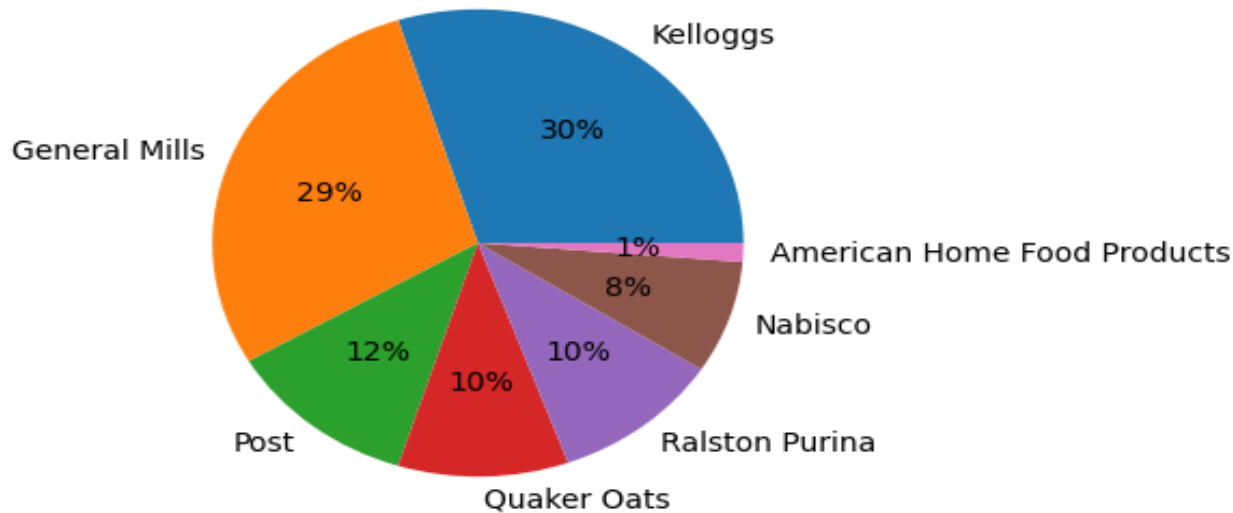
	Name	Manufacturer	Rating
▶	All-Bran with Extra Fiber	Kelloggs	93.704912



**LET'S DIVE
IN...**

Market Share of Manufactures

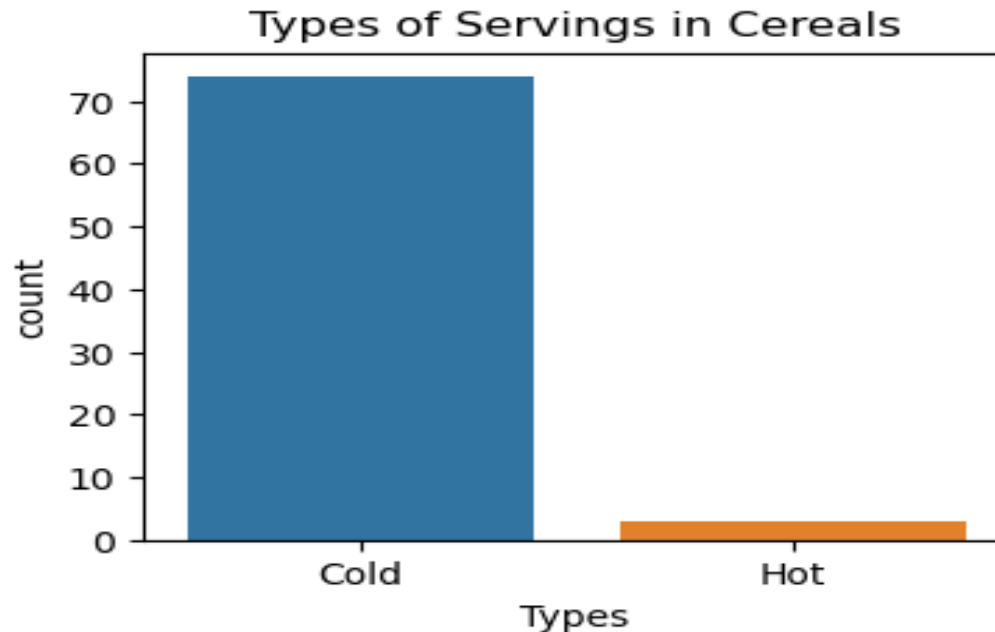
Share of Manufactures in Cereal Market %



There are a total of 11 brands/ manufactures making cereals

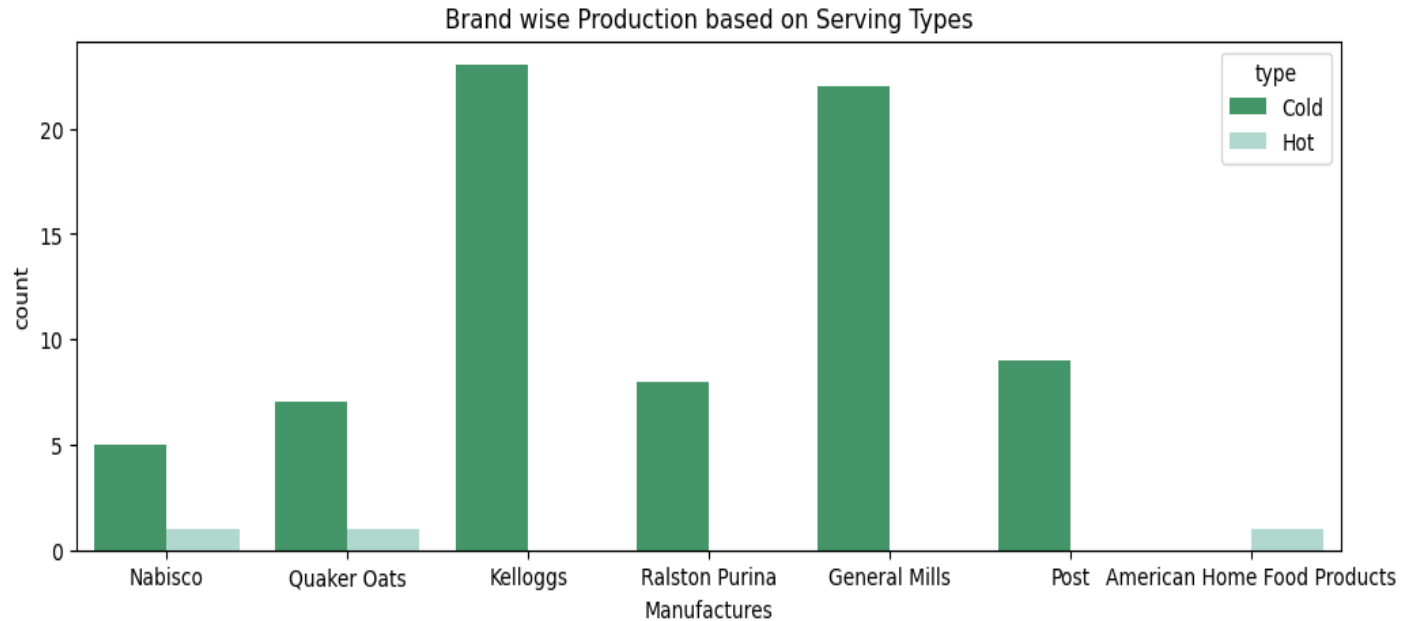
- Out of them **KELLOGG'S** holds **30%** and **GENERAL MILLS** holds **29%** making them the highest market shares
- **American Food Products** holds the smallest market share
- **QUAKER OATS** being the famous brand holds only **10%** of cereals in the market

Types of Servings



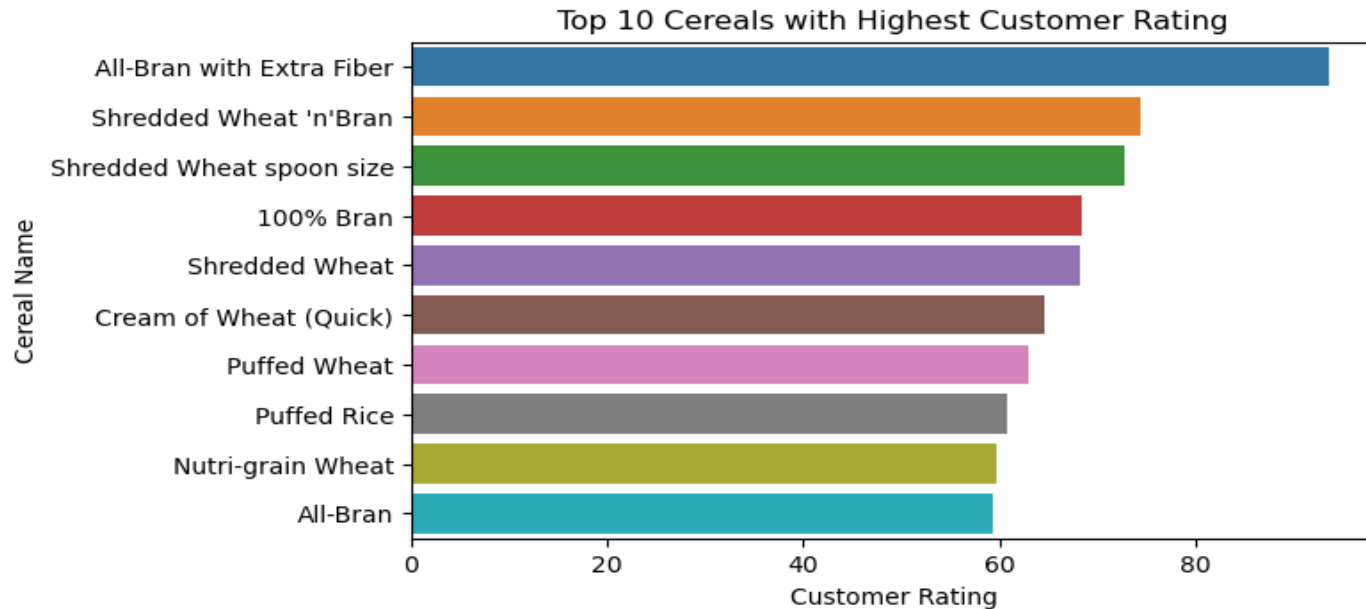
- Cereals are available in 2 Serving Types
- Cereals have more varieties in **COLD TYPE**
- 74 varieties in Cold serving and 3 varieties in Hot Serving

Manufactures Production based on Serving Types



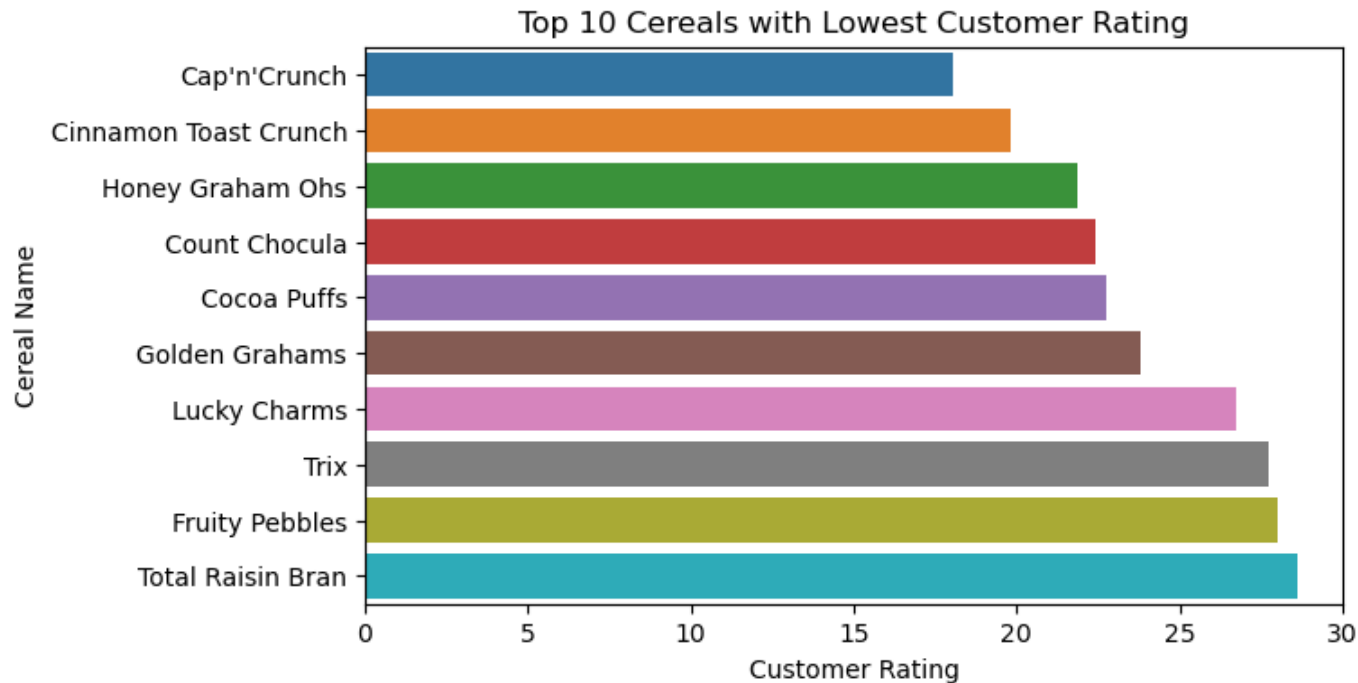
- Kellogg's & General Mills producing the highest total of Cold served Cereals
- Only 3 brands add Hot Serving type in the Market

TOP 10 Cereals with highest Customer Rating



- **ALL-BRAN WITH EXTRA FBER** is the highest rated
- Cereals contains the Wheat/Bran has got more ratings.
- Customers prefers cereals with fibre to maintain a balanced diet
- Kellogg's, Nabisco & Quaker Oats produces the highest rated Cereals

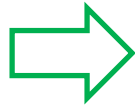
TOP 10 Cereals with lowest Customer Rating



- **CAP'N'CRUNCH** is the lowest rated
- Varieties in Cereals are not welcomed by customers
- Customers do not prefer less healthy cereals
- General Mills & Quaker Oats produces the lowest rated Cereals

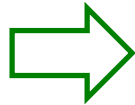
Carbohydrate in Cereals

Highest Carbohydrate



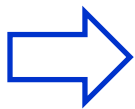
	Cereal with Highest Carb	carbo
▶	Rice Chex	23

Lowest Carbohydrate



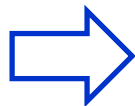
	Cereal with Lowest Carb	carbo
▶	Quaker Oatmeal	-1

Calories in Cereals



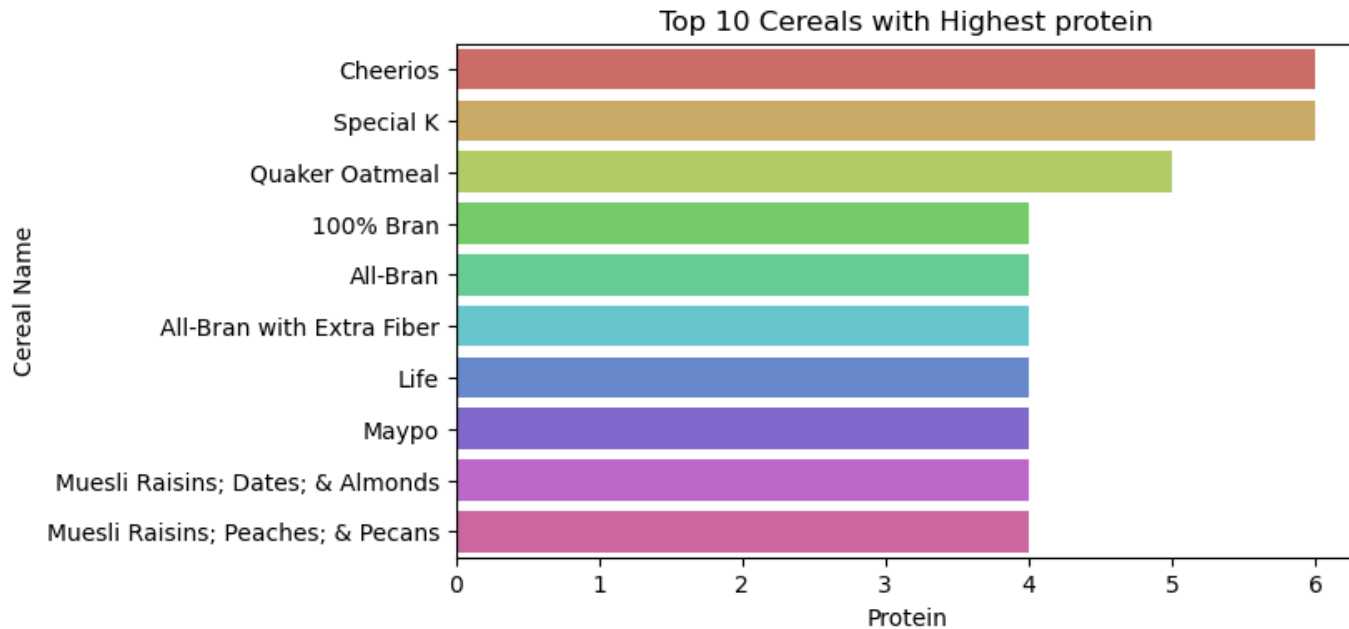
There are no cereals which provides the minimum calorie included in a meal, i.e. 200

Highest Calorie



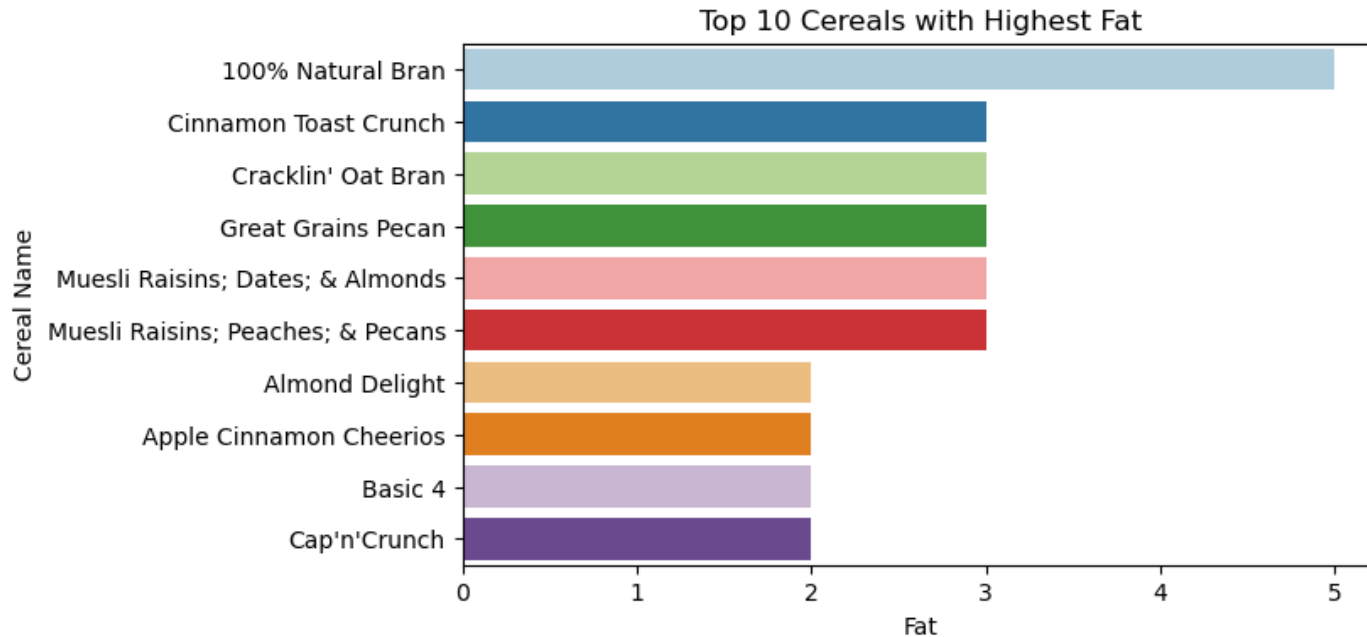
	Name	Manufacturer	calories
▶	Mueslix Crispy Blend	Kelloggs	160

TOP 10 Cereals based on Protein



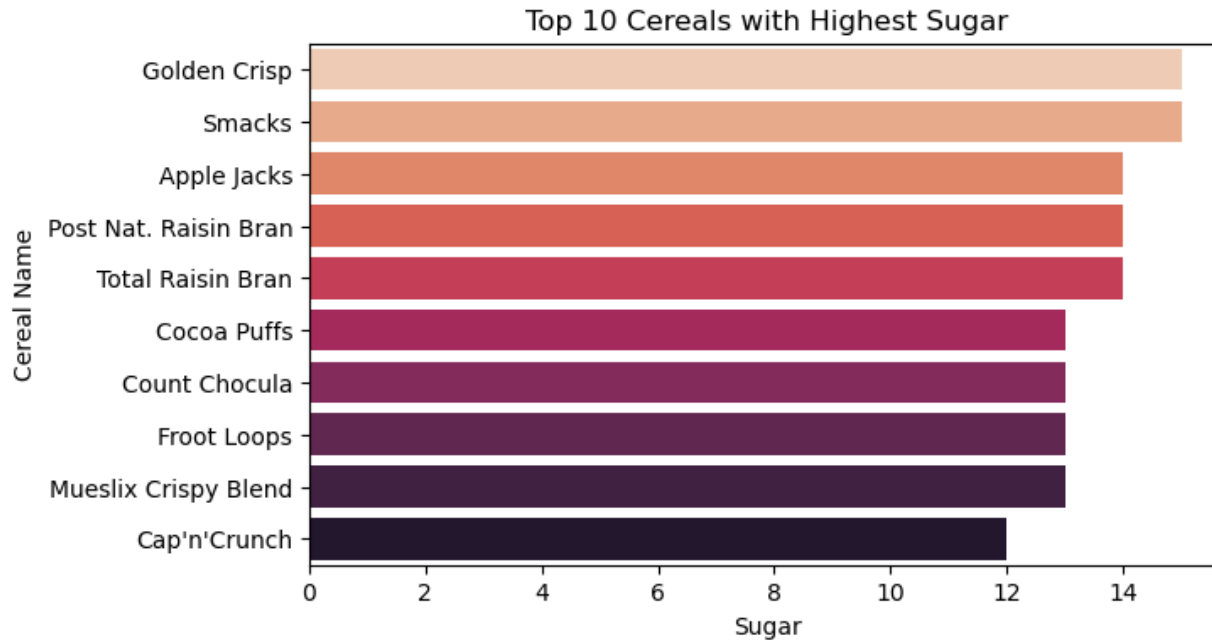
- Cereals containing the Raisins, Dates & Almonds have less Protein comparing to the Bran cereals.
- Customers does not considering Protein while Rating the cereals

TOP 10 Cereals based on Fat content



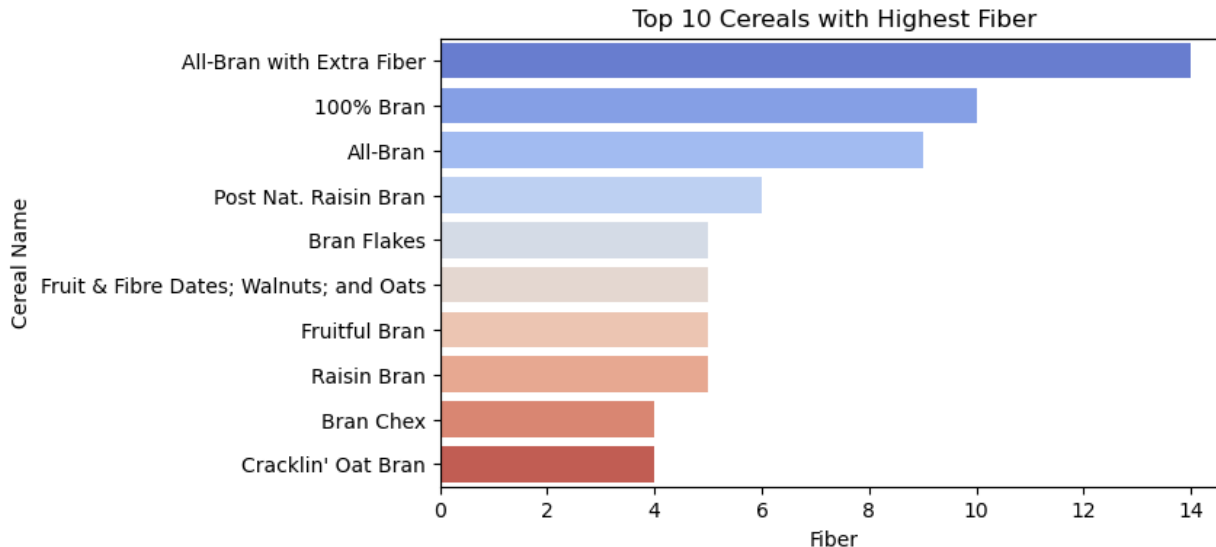
- Cereals containing dry fruits have more Fat content than other cereals
- Cereals with high Fat have low ratings
- Ralston Purina and Quaker Oats are high producers

TOP 10 Cereals based on Sugar



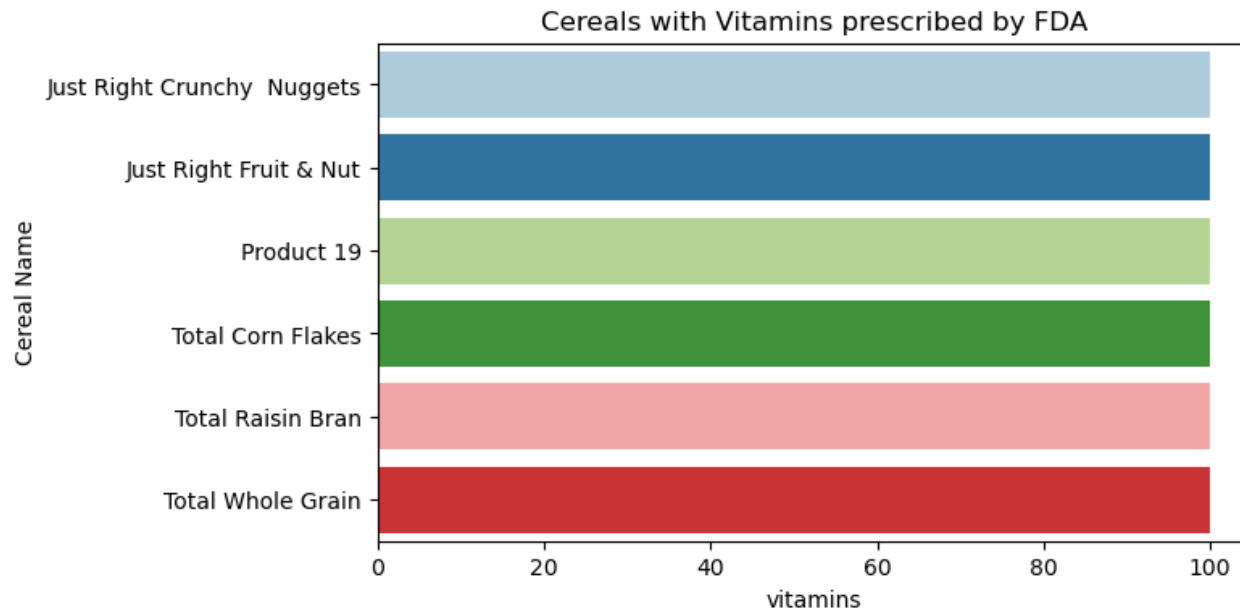
- Adding more fruits & dry fruits results in increased sugar level in Cereals
- Customer does not prefer High sugar in cereals
- LESS SUGAR = HIGH RATING

TOP 10 Cereals based on Fibre



- **ALL-BRAN WITH EXTRA FBER** has the highest fibre
- Customers prefer cereals with high fibre content
- Bran Cereals always have high fibre
- Kellogg's produces most of the high fibre cereals in the market

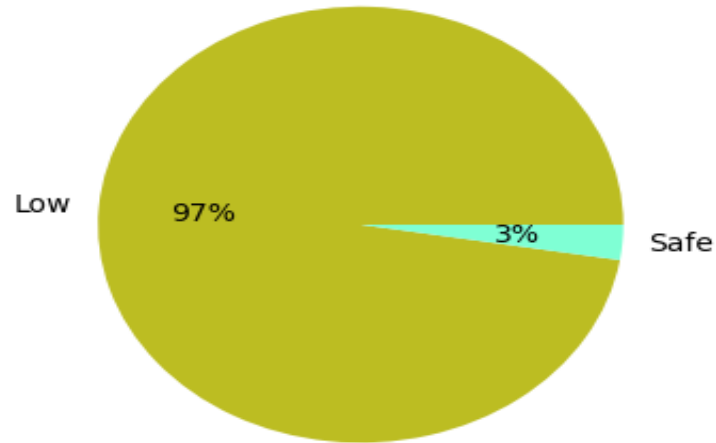
Cereals with Vitamins & Minerals prescribed by FDA



- Kellogg's & General Mills produces Cereals with Vitamins & Minerals, i.e. 100 prescribed by FDA
- They are not highly preferred by Customers

Let's check the Potassium Level

Potassium Level in Cereals %

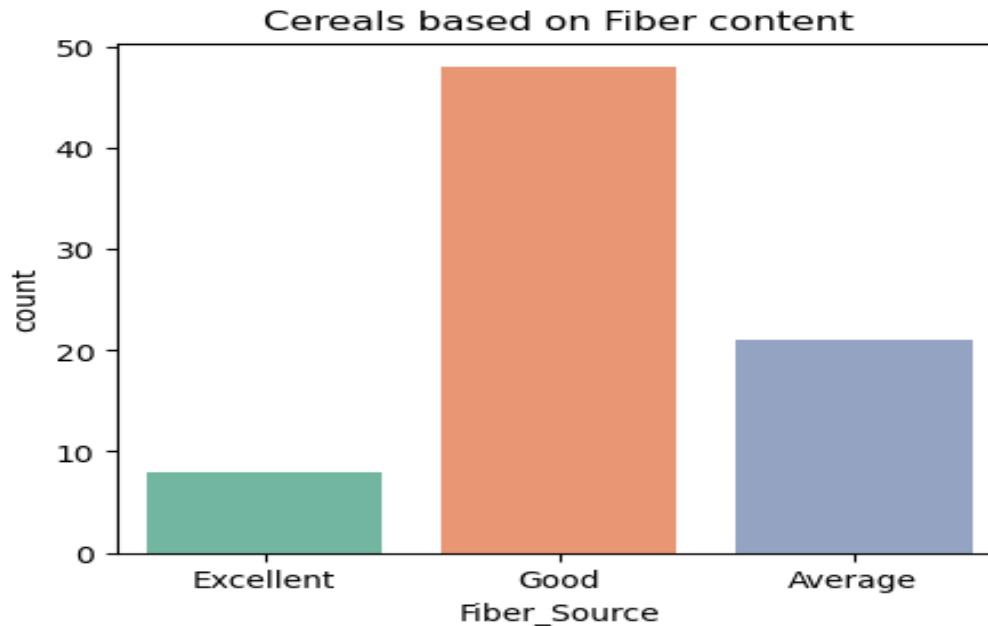


- potassium > 500, 'High'
- potassium between 300 and 500, 'Safe'
- potassium < 300, 'Low'

➤ Only 3 % of cereal have a “Safe” potassium content

	Name	Manufacturer	potass	potass_status
▶	All-Bran	Kelloggs	320	Safe
	All-Bran with Extra Fiber	Kelloggs	330	Safe

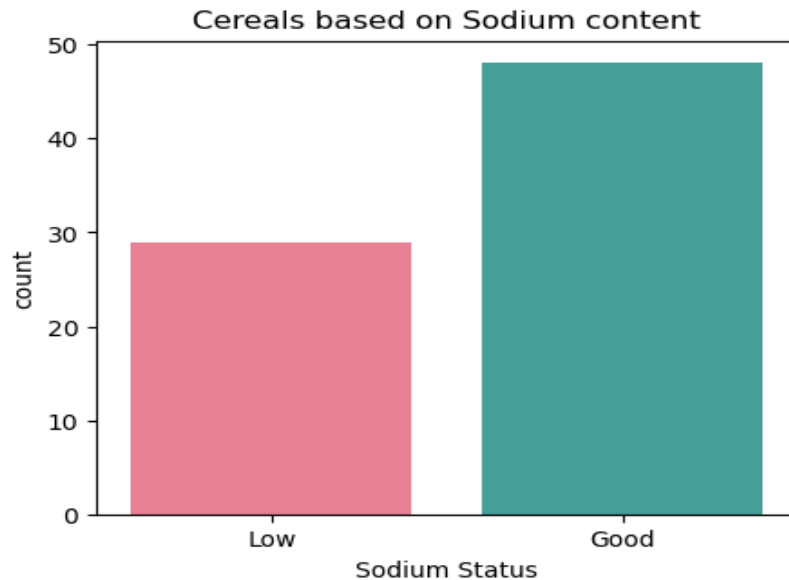
How about Grouping the Fibres ?



- Fibre > 4.9 = Excellent
- Fibre > 2.4 = Average
- Fibre < 2.4 = Good

- 8 cereals have “Excellent” fibre content prescribed by FDA
- 48 cereals have “Good” enough fibre in them

What about Sodium?



- sodium ≥ 500 , 'High'
- Sodium > 140 , 'Good'
- Sodium ≤ 140 , 'Low'
- Sodium = 0 'No Sodium'

	Highest Sodium
▶	320

- There are NO cereals with “High sodium”
- 48 cereals falls under “Good” category and 29 cereals have “Low” sodium category



FINDINGS...

LET'S CONCLUDE..

There are 77 cereals produced by 7 Manufactures

- ❖ All-Bran with Fibre by Kellogg's is the most in demand cereal with a rating of 93.7
- ❖ Kellogg's and General Mills produces the top number of Cereals
- ❖ Cereals with highest calories have lowest Rating
- ❖ High calories results in High sugar
- ❖ Customers tends to give higher rating based on popularity of Brands
- ❖ Cereals with more fibre gets more Rating
- Customers give low rating for cereals with high Calorie





SUGGESTIONS...

SUGGESTIONS..

- ❖ Include more varieties of fibres because customers choose cereal as a dietary meal
- ❖ The calorie and sugar levels in cereal should be kept at minimum
- ❖ Plain Bran/Wheat cereal are preferred rather than Cereals with fruits, dry fruits

