# 2nd Semester B. Tech

## DSE 1271 Data Visualization [1 0 3 2]

**Week 6 , Exercise 2: Dataset : CEREALS**

Variables in the dataset:
- **Name:** Name of cereal
- **mfr:** Manufacturer of cereal
  - A = American Home Food Products; G = General Mills; K = Kelloggs
  - N = Nabisco; P = Post; Q = Quaker Oats; R = Ralston Purina
  - **type:** cold or hot
- **calories:** calories per serving
- **protein:** grams of protein
- **fat:** grams of fat
- **sodium:** milligrams of sodium
- **fiber:** grams of dietary fiber
- **carbo:** grams of complex carbohydrates
- **sugars:** grams of sugars
- **potass:** milligrams of potassium
- **vitamins:** vitamins and minerals - 0, 25, or 100, indicating the typical percentage of FDA recommended
- **shelf:** display shelf (1, 2, or 3, counting from the floor)
- **weight:** weight in ounces of one serving
- **cups:** number of cups in one serving
- **rating:** a rating of the cereals (Possibly from Consumer Reports?)

**Ex 2. In Week 5 , you have cleaned and prepared the dataset. For the <span style="color:red">cleaned</span> CEREALS dataset**

a. **Answer the specified questions with data summarization and effective visuals.**
b. **Write down your insights into the notebook as comments.**
1. How many cereals(unique brands) are there in the dataset?
2. How many cereals are listed per manufacturer of the cereal?
3. How many hot vs cold cereals?
4. Which is the best and worst cereal?
5. Compare the rating for hot vs cold cereals. Which do people prefer?
6. Which cereals have the highest fiber and lowest sugar?
7. Which Cereals that have more than 3 grams of protein?

8. Tabulate and visualize Cereals by display Shelf.
9. How does the sugar content vary across different brands?
10. What is the average calories in cereals per manufacturer?
11. What is the average nutritional content (calories, sugars, protein, fiber, etc.) across all cereals?
12. What is the relationship between sugar and calories?
13. How does the sugar content compare in cereals with high vs. low ratings?
14. Do cereals marketed as "healthy" (e.g., high fiber, low sugar) tend to have higher ratings?
15. Is there a relationship between rating and display shelf?