SQL Capstone project

NutritionalFacts_Fruit_Vegetables_Seafood dataset.

Create Dataset As NutritionalFacts_Fruit_Vegetables_Seafood dataset

```
CREATE TABLE food_nutrition (
  food_name VARCHAR2(255),
  calories NUMBER,
  calories_from_fat NUMBER,
  total_fat NUMBER,
  total_fat_percentage NUMBER,
  sodium NUMBER,
  sodium_percentage NUMBER,
  potassium NUMBER,
  potassium_percentage NUMBER,
  total_carbohydrate NUMBER,
  total_carbohydrate_percentage NUMBER,
  dietary_fiber NUMBER,
  dietary_fiber_percentage NUMBER,
  sugars NUMBER,
  protein NUMBER,
  vitamin_a NUMBER,
  vitamin_c NUMBER,
  calcium NUMBER,
  iron NUMBER,
  saturated_fat NUMBER,
  saturated_fat_percentage NUMBER,
  cholesterol NUMBER,
  cholesterol_percentage NUMBER,
  food_type VARCHAR2(100));
```

--1. Retrieve the food items with the highest calorie content per serving.

```
SELECT foodandserving, calories
FROM cp
WHERE calories = (SELECT MAX(calories) FROM cp);
```

2. Find the total number of unique food types in the dataset.

```
SELECT COUNT(DISTINCT sugars) AS
sugars FROM cp;
```

3. Calculate the average sodium content per serving for all food items.

```
select avg(sodium1) as sodium1 from cp;
```

4. List the food items that have more than 20% of the daily recommended value for saturated fat.

```
SELECT foodandserving, saturatedfat2
FROM cp
WHERE saturatedfat2 > 20;
```

5. Retrieve the top 10 food items with the highest protein content

```
SELECT foodandserving, protein
FROM cp
WHERE protein >= (SELECT MIN(protein)
        FROM (SELECT protein
            FROM cp
            ORDER BY protein DESC
            FETCH FIRST 10 ROWS ONLY));
```

6. Find the food items with the highest potassium content per serving among those with more than 10g of total carbohydrates.

```
SELECT foodandserving,potassium, TOTALCARBOHYDRATE2
FROM cp
WHERE TOTALCARBOHYDRATE2 > 10
ORDER BY potassium DESC;
```

7. Calculate the total number of calories in the dataset and the percentage of calories contributed by sugars
calories contributed by sugars.

```
SELECT
   SUM(calories) AS total_calories, SUM(sugars)
   AS sugar_calories_percentage
FROM cp;
```

8. List the food items with more than 5g of dietary fibre and order them by their fibre content.

```
SELECT foodANDSERVING, dietaryfiber
FROM cp
 WHERE dietaryfiber > 5
 ORDER BY dietaryfiber DESC;
```

9. Retrieve the food items where the calories from fat are more than 30% of the total calories

```
SELECT calories_from_fat, calories
FROM CP
WHERE CALORIES > 0.3;
```

10. Calculate the average percentage of daily recommended vitamin A for all food items.

```
SELECT AVG(vitaminA) AS average_vitaminA
FROM cp;
```

11. Find the food items with the highest calcium content per serving among those classified as a certain food type

```
SELECT foodANDSERVING, calcium
FROM cp
 WHERE FOODTYPE = FOODTYPE
 ORDER BY calcium DESC
 FETCH FIRST 1 ROWS ONLY;
```

-12.List the top 5 food types with the highest average sodium content per serving.

```
 SELECT foodANDSERVING, AVG(sodium1) AS average_sodiUM1
 FROM cp
 GROUP BY foodANDSERVING
 ORDER BY average_sodium1 DESC
 FETCH FIRST 5 ROWS ONLY;
```

13. Calculate the total number of food items in each food type and order them by the count

```
 SELECT foodtype, COUNT(*) AS total_fooditems
 FROM cp
 GROUP BY foodtype
 ORDER BY total_fooditems DESC;
```

14. Retrieve the food items where the ratio of calories to protein is the highest.

```
  SELECT foodandserving, calories, protein, (calories / protein) AS
calories_to_protein_ratio
FROM cp
WHERE protein != 0
ORDER BY calories_to_protein_ratio DESC
FETCH FIRST 1 ROWS ONLY;
```

15. Find the food items with the lowest ratio of calories to total carbohydrates among those with less than 10g of sugar.

```
SELECT foodandserving, calories, TOTALCARBOHYDRATE2, sugars, (calories /
TOTALCARBOHYDRATE2) AS calories_to_carbs_ratio
FROM cp
WHERE sugars < 10
ORDER BY calories_to_carbs_ratio ASC
FETCH FIRST 1 ROWS ONLY;
```