

## 3.2.6 Data Lab

### Activity 1

1. Google, ChatGPT
2. Google: Terms searched for, voice and audio information, GPS and location data, people communicated with
3. Delimited means that something has fixed boundaries. Delimited files, such as CSV, have values that are separated by a specific character. These files can be quickly scanned and separated into arrays, making them very easy to work with.
4. The data type of a column is often listed at the top of the column.
5. Sports, climate
6. What is an athlete's average salary? On average, how much has the world's temperature increased?
7. <https://www.kaggle.com/datasets/sevgisarac/temperature-change/data>
8. This data set contains temperature change data from 284 countries from 1961 to 2019. A data set with more records is less likely to be biased and more likely to have accurate data across all spectrums.
9. Some websites use the data collected to improve their services. However, most companies collect data to sell or use in personalized advertising to get more money.
10. The data was collected from NASA's publicly available GISTEMP data.
11. Collecting personal data from customers, such as their location, rarely justifies the risk to personal privacy.

### Activity 2

1. Cereal
2. Mean: 2.88 grams, median: 1.5 grams
3. public class Cereal
4. 15
5. String name, boolean type, int calories, int protein, int fat, int sodium, double fiber, double carbs, int sugar, int potassium, int vitamins, int shelf, double weight, double cups, double rating
6. **Cereal.java**
7. **Cereal.java**
8. What is the highest-rated cereal in the data set?
9. What is the average cost of a box of cereal?
10. Collect data on the price of each cereal, add it to the dataset, and then create instance variables and methods for the new cost value.

## Activity 3

1. The temperature at Hartsfield-Jackson Atlanta International Airport is 55.9 degrees Fahrenheit.
2. KSAN - The temperature at San Diego International Airport is 61.0 degrees Fahrenheit.
3. **DataLab\_Code - Welcome02\_Object.java**
4. 146
5. The location of the weather station
6. Pago Pago at -14.331 (Code NSTU) **DataLab\_Code - Welcome03\_List.java**
7. What is the difference between the temperature at the weather station with the lowest latitude and the station with the highest latitude?
8. The loop would need to be modified to check for the maximum latitude as well as the minimum. Then, another request would need to be made to get the temperature of the lowest and highest stations. Finally, the values would need to be printed.