\_Lesson 2: Data classification

* Classify data as:
* Qualitative and quantitative
* Discrete, continuous, or neither; and
* Nominal, ordinal, interval, or ratio.
* **Qualitative data:** also known as categorical data, consist of **labels or descriptions** of traits.
* **Quantitative data:** also known as numeric data, consist of **counts or measurements**.
* **Discrete data:** are **quantitative data** that can take on only particular values and are **usually counts**.
* **Continuous data:** are **quantitative data** that can take on any value in a given interval and are **usually measurements**.

GPA(Grade point avarage): is continuous data -> because we cannot count it.

* **Levels of measurement:** the level of measurement of a variable describes the amount of information that variable contains.
* **Four levels of measurement:**
* **Nominal:** description
* **Ordinal:** ordering
* **Interval:** differences between levels
* **Ratio:** true zero
* Data at the **Nominal level** of measurement are **qualitative data** consisting of **labels or names**.
* Data at the **Ordinal level** of measurement are **qualitative data** that can be arranged in a meaningful order, but calculations such as addition or division do not make sense.
* Data at the **Interval level** of measurement are **quantitative data** that can be arranged in a meaningful order, but differences between data entries are meaningful.
* Data at the **Ratio level** of measurement are **quantitative data** that can be order, differences between data entries are meaningful, and the zero point indicates the absence of something.