**What are the data types (statistical perspective)?**

**Nominal data** - serves as labels and names, and the order of this data doesn’t matter - examples like the name of people, items, places and more

**Ordinal data** - categorical data like nominal - however, the order matters. The Likert Scale is a good example: Very happy > Happy > Neutral > Unhappy > Very Unhappy

**Interval data** - numerical data where there is no absolute zero. Zero of this data type serves a meaning. A good example is a temperature in Celsius, in which 0°C is a meaningful value. It does not mean there is no temperature; instead, there is a temperature, and its value is zero.

The main difference between ordinal and interval data is that the difference in range in the latter data type is fixed. The difference between 70°C and 100°C is 30°C, which is the same as the difference between -10°C and -40°C. On the other hand, you cannot conclude that the difference between Very Happy and Happy is precisely the same as the difference between Happy and Neutral

**Ratio data** - numerical data where you can perform multiplication or division for this data type - for example, the heights. You can say that the height of the Building A is twice as tall as Building B, deriving the literal ratio of data

The main characteristic that differentiates ratio data from interval data is there is a true zero in ratios. Zero units in height mean there is no height

**Selecting colour palette for data**

Mapping data space to colour space.

Data spaces: Continuous or Categorical

Colour Spaces: Munsell, RGB, HSV

For continuous data

Sequential

Map numerical scale to one of the axes of colour spaces, for example, Hue

Change in the graduation of colours.

For categorical data

Qualitative

Assign distinctive colours for each category.