3.5 Data Visualization

3.5 Data Visualization

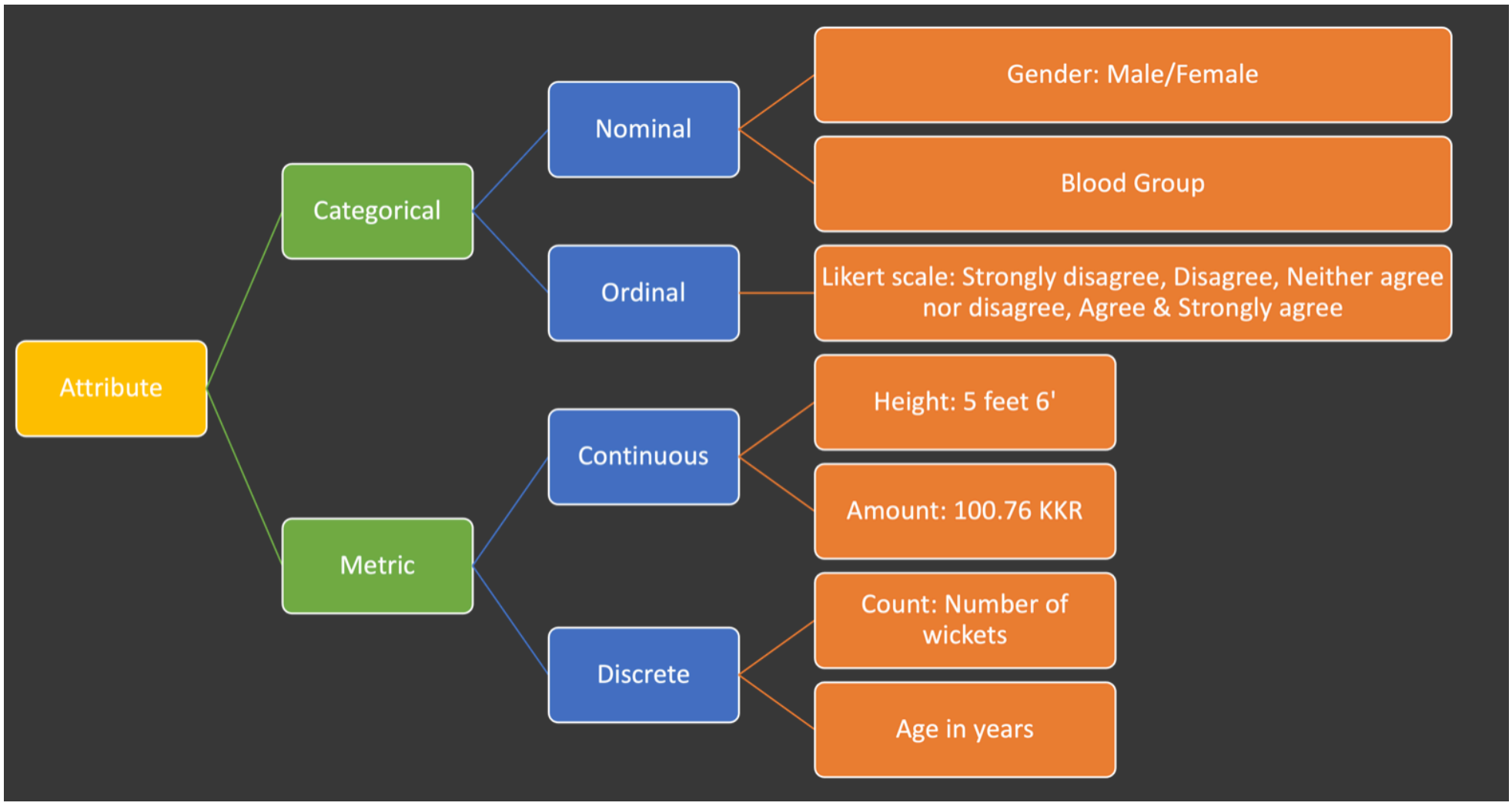
**You may attempt this section in the Jupyter Notebook:
https://colab.research.google.com/drive/19oUOYZ3N8152ZRN1i9_jPXMezpCBTFO-#scrollTo=J26a1eM1w_cx

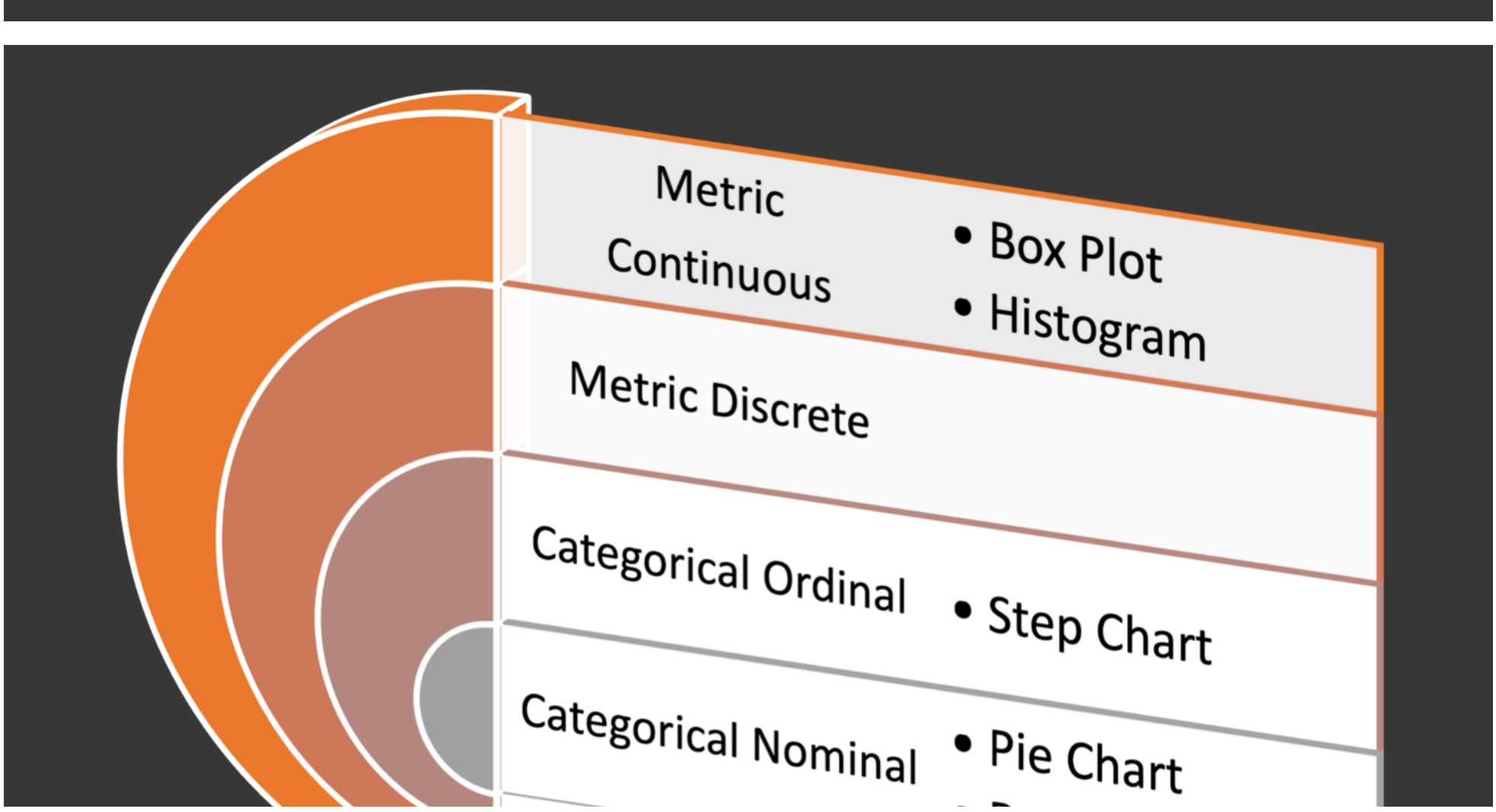
In this tutorial we will look into how to visualize data.
There are 3 broder categories of visualization.

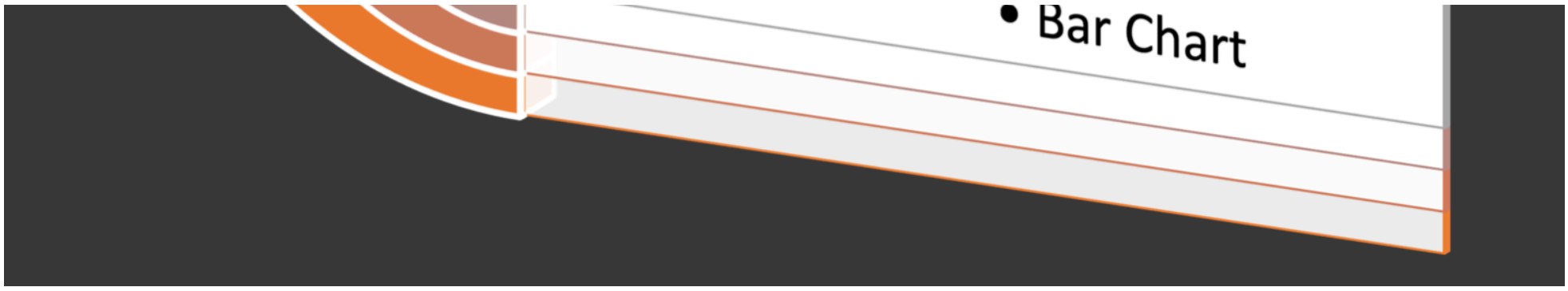
- Univariate Visualization
- Bivariate Visualization
- Multivariate Visualization

Univariate Visualization

Univariate visualisation is about visualise single attribute. First we need to find the data type of an and then we can visualise them. There are 4 data types: categorical nominal, categorical ordinal, metric discrete and metric continoues. Based on the data type we can choose appropriate visualization







Consider the following dataset about t-shirts.

id	color	size	price	stock
123	black	L	1000.00	10
124	black	M	1300.00	20
120	black	S	1200.00	30
128	black	XL	1300.00	22
.....				

Let us plot a pie chart to inspect the stock percentage bt size. To do that we need the total number of t shirts by size. we can ues groupby method available in pandas library to generate this data.

Lets plot the data we obtained in the above step. Note the first column of a group by method output is an index.
We are using the pyplot libray to plot pie chart.

Below we show how to plot a grouped bar chart.

Below we show how to plot a stacked bar chart.

Below we show how to use subplots to display tow charts next to next and support bivariate analysis.

GET IN TOUCH

University of Moratuwa
Centre for Open & Distance Learning
CODL

011 308 2787/8

011 265 0301 ext. 3850,3851

open@uom.lk

University Website

CODL Website