

## Seminar 2 (Week 2)

Q1. Please try write code for the following Matplotlib related problems.

- I. X is variable, whose value varies from 0 – 20. Please plot 3 lines for equations  $y=X$ ,  $y=X^2$  and  $y= X^3$ .
- II. Create a pie chart and bar diagram with the following sample data

Sample data:

Programming languages: Java, Python, PHP, JavaScript, C#, C++

Popularity: 22.2, 17.6, 8.8, 8, 7.7, 6.7

Q2. Please perform the following activities on the penguin dataset.

- I. Import the dataset into pandas dataframe.
- II. Add title for each column.
- III. Calculate the number of missing values in each column.
- IV. Draw a bar diagram showing the number of penguin species.
- V. Create a scatter plot to present the relationship between Flipper Length and Body Mass.
- VI. Create a bar diagram to present the average bill length of each species.