

Class Activity 11: PYTHON 2

Important Notes:

- This is an individual practical exercise.
- Practical assignments are based on objectives. If an objective has been achieved a mark will be allocated.

Instructions:

- Create a Git Repository for this class activity and make sure you push all the work you complete during this activity to your created repository.
- The following CSV files are available on clickUP:
 - titanic.csv
 - o tips.csv
 - o mpg.csv
- Choose one of these files as your data source, then write code to perform each of the following operations:
 - 1. Import the data from your CSV file into a Pandas Dataframe
 - 2. Add a new calculated column to the dataframe
 - 3. Create a subset of the data based on a condition
 - 4. Calculate the correlation coefficient between two columns and show whether a significant correlation exists (correlation coefficient values less than +0.8 or greater than -0.8 are not considered significant).
 - 5. Generate a data visualisation from the data in your data frame. Your visualisation must be sensibly thought out (i.e. answer a reasonable business question) and it must have customised styling (e.g. title, axis labels, legend, colors, etc.)

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_____/ 25 marks)

University of Pretoria		
Student NR	Surname	Initials

Checklist	Mark	MAX
1. Import from CSV to Dataframe		2
2. Calculated column		5
3. Conditional subsetting		5
4. Correlation		5
5. Data visualisation		8
TOTAL		25

Presentation	Factor	Final Mark (25)
Student demonstrated an adequate understanding of the topics covered in this assignment as well as their application.	1.0	
The student showed a clear lack of understanding of the topics covered in this assignment and was not able to explain how these were applied.	0.5	

Version Control	Factor	Final Mark (25)
Student created a Git repository and pushed all work required by this activity to the repository.	1.0	
The student <u>failed to create</u> a Git repository and push all work required by this activity to the repository.	0.5	