**SCHOOL OF COMPUTING (SOC)**

**IT8701 Introduction to Programming for Data Science**

**Self Reflection (CA1)**

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| **Instructions:**   1. Submit this at Polymall “Assignments->CA1->Self-Reflection” folder 2. Name your file “YourModuleLecturerName-YourStudentID-YourName.docx” |

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| **Your Lecturer’s Name** | Hubertus’s |
| **Your Name** | Wong Qi Yuan, Jeffrey |
| **Your Student ID** | P7359567 |
| **Your Class** | PA01 |

# QUESTION 1: CHALLENGES - SELF-REFLECTION FOR CA1

Provide a brief reflection of the challenges you have faced in this assignment.

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| * Firstly, I must assign names to data files that I have created or downloaded and then organized those files into directories. When I have created or downloaded new versions of those files, I have to make sure to assign proper filenames to all versions and keep track of their differences. * Secondly, it is in the data acquisition is keeping track of provenance, i.e. where each piece of data comes from and whether it is still relevant because sometimes the original data extracted from the data website will update periodically, so it is very important to accurately track provenance, and re-analyze and re-run the code again. * Lastly, the absolute running times of the coding as it might take a long time to terminate due to the large amount of data (i.e. approximately about more than 300000 data) to be processed from the file directories. In addition, sometimes the coding might crash prematurely due to errors in either the code or inconsistencies in data sets so choosing the right choice of built-in-function is extremely essential in programming and often need to endure several rounds of debugging and fixing bugs before the coding can terminate with useful results. |

# QUESTION 2: ACHIEVEMENTS - SELF-REFLECTION FOR CA1

Provide a brief reflection of what you think you have personally achieved in this assignment or the knolwedge or skills you have found satisfaction in learning / acquiring.

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| * Gain better insight into basic key statistical concepts and build practical analytical skills using Python through visualizing and describing data using Matplotlib and Numpy. |

# QUESTION 3: SELF-EVALUATION

Grade yourself using the marking rubrics below.

### **How well did I meet the BASIC assignment requirements?**

For each criteria, place a tick ☑ in the column that best matches what you have done for the assignment.

State the evidence in the “Evidence” so that your lecturer can verify, otherwise you will be asked to show evidence during your assignment interview

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| Criteria | **Fully met** | **Partially met (at least 50%)** | **Below requirements** | **Evidence** |
| My CA1 submission uses at least 3 different datasets from HDB at data.gov.sg | √ |  |  |  |
| My CA1 submission included ALL the 5 compulsory charts: 1 line chart, 1 bar chart, 1 box plot, 1 scatter plot and 1 histogram | √ |  |  |  |
| My CA1 submission purely used the Numpy library in my Python codes to perform data manipulation only (i.e. I did not resort to easier ways to achieve the requirements using other libraries such as pandas etc) | √ |  |  |  |
| My CA1 submission purely used the Matplotlib library in my Python codes to perform data visualization only (i.e. I did not resort to easier ways to achieve the requirements using other libraries such as seaborn, pygal etc) | √ |  |  |  |
| My CA1 submission includes a deck of Powerpoint slides that explain the datasets I used, what was done to process these datasets and summarizes the insights gained from the analysis of the data | √ |  |  |  |
| My CA1 submission includes a self-reflection document that outlines my challenges and achievements doing this assignment | √ |  |  |  |

### **How high is the quality of my CA1 assignment?**

For each criteria, place a tick ☑ in the column that best matches what you have done for the assignment.

Justify your answer in the “Evidence” column so that your lecturer can verify, otherwise you will be asked to show evidence during your assignment interview.

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| Criteria | **Above Average** | **Average** | **Below average** | **Evidence** |
| I evaluate the **technical complexity** of my assignment as:  \*A technically complex assignment should include many advanced features that are not taught in the class and are not trivial to code |  | √ |  |  |
| I evaluate the **code quality** of my assignment as:  \*An assignment with high code quality often includes high usage of reusable functions, demonstrates code efficiency through use of appropriate language constructs (e.g. for loops) and is well-documented. | √ |  |  |  |
| I evaluate the **user-friendliness** of my assignment as:  \*A user-friendly application is typically one that provides an easy-to-use user interface (UI) that novice users can understand and navigate with ease. For the purpose of CA1, since there is no /limited UI, please evaluate user-friendliness of your assignment as “How organised is your code and how easily and smoothly another person like your lecturer can run the code on his computer” | √ |  |  |  |
| I evaluate the **aesthetics** of my assignment as:  \*An assignment which has a high level of aesthetics for this module’s CA1, should show effort by the student to enhance their graphical outputs with attractive and pleasant layouts and color combinations | √ |  |  |  |
| I evaluate the **creativity** of my assignment as:  \*An assignment which demonstrates creativity includes ideas that are novel and not implemented by other students | √ |  |  |  |

### **How in-depth and insightful is my data analysis?**

For each criteria, place a tick ☑ in the column that best matches what you have done for the assignment.

Justify your answer in the “Evidence” column so that your lecturer can verify, otherwise you will be asked to show evidence during your assignment interview.

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| Criteria | **Above Average** | **Average** | **Below average** | **Evidence** |
| I evaluate the **completeness** of my data analysis as:  \*A data analysis that has a high level of completeness requires the analyst to perform a lot of drilling-in/ cross-analysis of the data. If you think you performed above average here, you should show evidence that you went ‘very deep” in digging out details and made effort to explore related datasets etc |  | √ |  |  |
| I evaluate the **quality** of my analysis as:  \*A data analysis report that is above average is usually prepared by a student who shows high clarity about the goals he wants to achieve through analysing the data. This includes knowing the specific target audience he wants to present the report to and the insights he wants to derive from the analysis. The analyst is able to present a convincing argument and conclusion to what he sets up to find. If you think your data analysis is of high quality, ask yourself if you are you confident that the target party for your analysis would think your analysis is quite interesting and useful to him/her? |  | √ |  |  |

### **How much effort did I put in for my self-reflection?**

For each criteria, place a tick ☑ in the column that best matches what you have done for the assignment.

Justify your answer in the “Evidence” column so that your lecturer can verify, otherwise you will be asked to show evidence during your assignment interview.

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| Criteria | **Above Average** | **Average** | **Below average** | **Evidence** |
| I evaluate the effort that I put in to explain the **challenges** that I faced in this self-reflection assignment as: | √ |  |  |  |
| I evaluate the effort that I put in to explain the **achievements** that I faced in this self-reflection assignment as: | √ |  |  |  |

**-- End of Self-Reflection --**