**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** | Dora Chua |
| **Your Name** | Tan Wen Hua |
| **Your Student ID** | P7338001 |
| **Your Class** | NSDBA/1 |

# QUESTION 1: CHALLENGES - SELF-REFLECTION FOR CA1

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

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| Initially, I was confused with numpy array and array and have difficulty in using numpy array selecting data. However, I learn about their differences and know how to manipulate these data. In one of the graphical, I required to use the x-axis as date time line. But having difficulty in converting quarter to date. I tried search web site with no luck. I managed to resolve it by improvise a solution to it and solve the importing datetime64 issues.  In many of my graphical data analysis required interactive widgets such as check buttons, radio buttons, slider, text box etc. I need to learn to code.  Matplotlib’s check buttons used to set visible on or off for line plot or rectangle plot to be visible or not when check it. However, I need to use it not only to line plot and other plot such as box plot. I need to think out of the box to resolve it.  Some of the variables are based on the number of input. Therefore, I need to change some setting to be flexible such the color of the town in check button, the slider year. |

# 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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| I have more in-depth in the array manipulation and use matplotlib to plot and graphical chart including various widgets to produce more interactive interface. These widgets include check buttons, radio buttons, slider and interactive text box.  With this assignment, I am more confident use the numpy and matplotlib in producing the visualization data analysis. |

# 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 | ☑ |  |  | My data analyse able to answer these question: |
| 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 --**