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| **CMM201: Programming Concepts for Business Analytics (Output 2)** **2019-2020**  **Student Name Shona Hutchinson Assessment Grade B** | | | | | | | |
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| **GRADE** | **A** | **B** | **C** | **D** | **E** | **F** | **NS** |
| **DEFINITION** | EXCELLENT Outstanding Performance | COMMENDABLE Meritorious Performance | GOOD  Highly Competent  Performance | SATISFACTORY Competent Performance | BORDERLINE FAIL Open To Compensation | FAIL Unsatisfactory | NON-SUBMISSION |
| **(WEIGHTING) SOURCES OF ASSESSMENT CRITERIA** | IN ALL CASES WITHIN THE LIMITS APPROPRIATE TO THE LEVEL OF STUDY ... | | | | | | |
| **(70%)**  **Code Functionality** | All the required functionalities can be performed by the six options.  The notebook/pdf/html files clearly show the execution of the five options by means of a “main” programme. | Most of the required functionalities can be performed by the five options, or two of the functions doesn’t work properly.  The notebook/pdf/html files show the execution of the five options by means of a “main” programme. | Three out of the six options don’t work properly.  The notebook/pdf/html files show some execution of the five options by means of a “main” programme to a certain extent. | Four out of the six options don’t work properly.  The notebook/pdf/html files show some the execution of the five options by means of a “main” programme, or this section does not work properly. | One of the functions shows some functionality, but not the rest.  A “main” programme has not been implemented. | No functionality is shown by the five options.  A “main” programme has not been implemented. | No functionality has been implemented. |
| **(30%)**  **Questions** | All questions are fully answered in a clear and concise manner. Code is used to support statements. There is a critical discussion of the findings, and a research is undertaken using appropriate sources. | Questions are answered mostly in a clear and concise manner. Some code is used to support answers. There is a discussion of the findings, and some research is undertaken using appropriate sources. | Questions are answered in some manner. Minimum code is used to support answers. There is a discussion of the findings, and some research is undertaken using some sources. | Questions are answered in a barely appropriate manner. No code is used to support answers. There is barely a discussion of the findings, and some research is undertaken using some sources. | Questions are answered, but not in an appropriate manner. No code is used to support answers. There is no a discussion of the findings, and no research is undertaken using inappropriate or incorrect sources. | Questions are answered ineffectively and with no code or discussion. | Not questions have been answered. |

**Comments:** The program does an overall very good job in running the desired functions. There are some minor corrections and comments that have to be addressed:

* In the main menu, your program cannot handle an empty input
* In option 2 your program returns to the main menu with an incorrect selection. This is not incorrect technically, but limits the usability of the program.
* In option 2 when I selected an invalid street id, the program returned an empty list/numpy array instead of a warning message.
* In option 2 when I put negative numbers as index, I can get the entries from last to first. Nice addition!
* Option 4 works well for your current dataset, but in the long run is not transferable for other datasets. The fact that you limit the user to select between the three headers of your dataset is not a proper practice.

Regarding the questions, you answered both of them in an effective way. You just missed the references.