

WM264 Smart Solutions Development II

Assignment No. 1 (40% of overall module mark)

Student ID: 1921983

Marking Rubric

| | 0 – 40% | 41 – 60% | 61 – 80% | 81 – 100% |
|--------------------------------|--|--|--|---|
| Challenge No.1 | Limited understanding of the role of data management. Business process missing or completely unsuitable. | Most aspects of the challenge are addressed, however, there is a lack of in-depth theoretical analysis. Limited understanding of the business process. | Good command of database terminology. Able to explain the design choice using database theory and provide high-level summative justification. Good business process. | Very good understanding of existing theory. Successful attempts are made linking the database theory with application practice. Well thought out and completely appropriate business process. |
| Challenge No.2 | Not attempted, or very limited attempts. | Fulfil basic functionality requirements. Demonstrate a good understanding of basic SQL commands. | Good use of advanced SQL features. Some successful attempts to implement additional features. | Functionality is optimized to achieve better performance. |
| Challenge No.3 | Not attempted, or very limited attempts. | A solution is provided. However, it shows a limited understanding of structures and functions available in the particular programming language. | The code uses various functions and structures in the chosen programming language to solve the challenge. | Make use of 3rd party libraries that are not explicitly taught in the module. |
| Report and Coding Style | The report contains lots of grammar mistakes. The logic behind the code is difficult to follow. | The report makes use of illustrations. The code is highlighted. however, it contains some errors. | The report is clearly structured and well written with little mistakes. The code is well commented. | Advanced use of diagrams for illustration. The coding style is consistent and follows the convention. |

Individual Challenge Marks

| | | | |
|-----------------------|-------------|--------------------------------|-------------|
| Challenge No.1 | 17.5 | Challenge No.2 | 22.5 |
| Challenge No.3 | 22.5 | Report and Coding Style | 22.5 |

Total (100%): 85

Feedback

| | |
|---------------------------------|--|
| Challenge No.1: | Good to relate database design theory with relational database design practice. Good description of key elements such as relations contained inside the relational database. However, there is a lack of generality when purely focusing on relational database. The descriptions of relative advantages and disadvantages seemed a bit superficial. |
| Challenge No.2: | Very good use of advanced SQL language features such as relations and procedural language programming. Good understanding query formation and structure. Very good use of roles and permissions. However, little evidence of performance optimization and query tuning. |
| Challenge No.3: | Very good use of a Python library for accessing a relational database. Very good use of external libraries for displaying query results. However, the use of MySQL Connector was limited to a small number of functions. Should try to avoid 'SELECT *' or using string concatenation to form SQL statements to avoid SQL injection. |
| Report and Coding Style: | In general, the report is well structured with good use of syntax highlighted code and references. Source code followed the convention, were well commented. However, there were a few cases where source code were not quite distinguishable from main texts -- could try to use boxed table with line numbers to avoid this. Also, should use a smaller line spacing for SQL code. |

Dr. Jianhua Yang
19 November 2020