**CS2015: Assignment 1 - SQL**

This exercise is part of the formal assessment of the course, and the work done must be your own. You are reminded to read the section on Cheating and Plagiarism in your student handbook.

Download the files **FastPizza.mdb** and **DM2017-18\_CA1\_template\_01.doc** from the Assessment section within MyAberdeen, saving both files to your H: drive. The tables in this database describe the data related to a Pizza ordering and delivery system managed by the FastPizza Company.

The file **DM2017-18\_CA1\_template\_01.doc** contains a Word template, which you should use to submit your answers. Please copy and paste the text of your SQL queries into this template. Similarly, where noted, copy the corresponding results table of your query into the template. An entire results table can be highlighted for copying by holding down the mouse button whilst dragging the cursor over the results table from the top left corner to bottom right of the table border. Once highlighted, pressing the CTRL-C buttons copies the table and results. In Word use Edit -> Paste to paste the region into the template.

When marking, we will look at your database. Therefore, you are required to name your queries as Query2 to Query8 for your answers to the 8 questions below. By following these guidelines, you will help us mark your assignment quickly. You should attempt every question. Credit will be given for partial solutions. The marks for each question are shown in brackets. For queries that perform calculations (e.g. aggregates), you should provide appropriately named column headings. Unless otherwise noted, you may compose and test your query using any of the MS Access tools available.

**PART 1**

1. Open the *FastPizza.mdb* file and inspect the database to understand the structure and contents of the database.

Recreate the FastPizza database as a MySQL database.

**Hint:** Refer to practical 3, for creating a database on the university MySQL server mysql.abdn.ac.uk. (Since you have already created a MySQL account, you only need to create a new database). Again, use the procedure described in practical 3 to create the MySQL database tables and data contained in the MS Access database. Inspect your MySQL database to check if all the required content is replicated. If you are not happy with the MySQL database, it is best to drop all the tables and data again.

**IMPORTANT**: Do not use your university username and password to create a new MySQL database. These details will be made available to the lecturer so should be unique.

Your MySQL database should have the same tables, data and schema as the MS Access database (15).

2. Write an Append query to add yourself as a new customer. You should supply your real name, but use a fictional address. There is no result table for this question - just copy the SQL to the Word template document. (2).

Within MySQL, create a view for each of the following SQL statements above. Ensure each view is named sensibly.

3. Similarly, write an UPDATE query to increase the price of 'large' pizzas by 10%. Again, do not show the results for this question - just copy your SQL statement to the Word document. (2).

4. Using only the OrderItems table, write a query to show the number of items in each order (identified by OrderId). Note: For this and the following questions, please copy and paste both your SQL statement and the results table into the Word template. (3).

5. Extend your answer to part (4) to show only orders (identified by OrderId) with 2 or more items, listed in ascending order of item count. You could save typing by selecting Query4 and using Copy and Paste (right mouse button to create the initial version of Query4. (3).

6. Without using any JOIN keywords, write a query to show the names of all delivery staff and the number of items they delivered. Sort the list in ascending order on the first and lastnames of the delivery staff. Use table aliases to simplify your answer. (4).

7. Write a query to count the number of Pizzas of each type (Hawaiian, Pepperoni Feast etc) sold by FastPizza. Use table aliases to simplify your answer. (5)

8. Write a query to calculate the bill for Howard Roark. Your result table should have a single row that shows Howard's name and address, and the total cost of his order. Use table aliases to simplify your answer. (6).

**PART 2**

Write a 1000 word (2 pages maximum) critique of the pizza database based on how good/poor you feel the database is. Your answer should include (along with other aspects) the quality of the data, the organization of the tables, fields, keys, etc. Marks will also be awarded for supporting your arguments with evidence (for example peer-reviewed literature). Ensure you include your report in the template provided. (10)

**Submitting Assignment**

The Word template document, containing your answers, is to be submitted to the MyAberdeen system.

IMPORTANT: ensure you provide all the information required to access your MySQL database. Failure to do so will prevent the marker accessing your MySQL database to check you have imported the metadata and data correctly, and created the required views, and will result in the reduction of marks.