CA2 Assignment Self Reflection Ella.

This assignment presented me with a series of SQL statements where the result of the query was given. It was my task to write the correct SQL statement to produce the result shown. I was assigned the tasks 0, 5, 10, 15, 20 and 25. The way my group allocated each task was by starting at task 0 and round robining so that way we all had progressively harder statements as we went through to try and make it as equal as possible. Even though we each had our own individual tasks, if someone found their task particularly challenging we would all come together during pre-made meetings or spoke over messages to all work on the issue together. The only social aspect we had to overcome was finding times where we were all available for group meetings due to various clashes in our timetables, but were soon able to overcome this minor problem. This allowed us all to work in a real-time work environment, preparing us for future scenarios where we would have to operate and communicate within a team.

For SQL statement 0 I was forced to use a wildcard as the information being asked was too extensive, making it time consuming for the user to type out as well as hard to read. So instead by using a wildcard, not only did it make it easier to read but also was a lot quicker to create the SQL statement as you did not need to type out each individual column name. The only issue with using a wild card is security. As confidential data is kept within database tables, retrieving all the data by using a wildcard can lead to users gaining access to data they should not be able to.

For task 5 I had to search 2 tables - invoices and customers but only show data where the InvoiceId was 5. To ensure this query was correct I needed to make sure that customers CustomerId and invoice CustomerId were the same, so I did this by using the comparison operator '='.

Statement 10 asked me to use aliases, e for the employees table and c for the customers table. This one was a little bit more tricky as you had to spot that the SupportRepId in the customers table is the same as the EmployeeId in the employee table. This part is key as you need to set them equal to each other inorder to produce the correct query result. You do this by typing it out like this - c.SupportRepId = e.EmployeeId. After doing this you are then able to pull all the data for employees (first and last name along with the number of customers they support) that is equal to SupportRepId 5. To produce the number of customers they support you use the function COUNT, all this does is return the number of rows that match the criteria you are looking for.

Task 15 asks to produce the first name, last name, title and hire date for each employee who was hired after 2003. This one had me struggling for a while mostly because of the way the date was asked to be presented in the format dd/mm/yyyy and in the table it was presented as yyyy-mm-dd 00:00:00 as it included the time. Firstly I needed to rename HireDate to Date as the expected output was shown as Data, but this was not mentioned in the notes for task 15 but was the only way I was able to get the statement to pass the test. The other issue I had to overcome was the format. I used the function 'STRFTIME' setting the format to dd/mm/yyyy by stating '%d/%m/%y' in the clause. This will output the date in the format the

expected result was asking and also not output the time which was formatted in the employees table.

In Task 20, I had to show employees first and last names along with their titles who reported to no one. By setting ReportTo = ‘null’. In the future I would improve this statement to ReportTo IS ‘Null’ as I was checking for a null value.

Task 25 was by far the task I struggled with the most as I had to do extensive research on the function EXCEPT. EXCEPT clause was needed as two select statements were used, one to select trackIds for tracks that were grunge and the other was used to output the TrackId from the playlists that are grunge that have no invoiceIds saying there has been no orders for them. As so much is being asked for this one it can make the statement tideus.

Overall, a change I would have made to my statements is how secure they are, and take into account the always changing database. I also found that as I progressed with tasks, they took more time to complete due to increasing difficulty. However, This assignment allowed me to improve not only my SQL knowledge but my communication skills from working as part of a team with a common goal.