# Item 1: SQL queries

Some of the queries that I developed for this release include:

1. The first query was “SELECT users.first\_name, users.last\_name, lessons.lesson\_date, lessons.lesson\_length FROM lessons LEFT JOIN users ON lessons.teacher\_id = users.user\_id WHERE student\_id = @userID;” This was used to select the lessons that a select student had booked and return the teacher name, date and length of the lesson. This was useful for the development of the personal timetable, there was also a similar query for where the user id was equal to null to load the non-booked timetable.
2. Another query that I developed was a lot simpler and was used to check if a user already existed or not which was used for user creation, this was “SELECT username FROM users WHERE username = @username;”
3. The above query along with “SELECT user\_id, role, password\_hash, salt FROM users WHERE username = @username" which was used to check if a users credentials were correct and if so log them on were the two queries that I wrote that were used for the login and signup system.

NOTE: The @string characters were used with c#’s MySql.Data class to build the queries with supplied data

# Item 2: Business Letter

In the supporting documents I have included the business letter with the contributions that I made towards it highlighted.

# Item 3: Designs

In the supporting documents I have included rough designs for the timetable as well as screenshots of the final design of the timetable. These rough sketches contributed to the assignment so that the other team could see what the user interface might look like before I put time into developing it. As can be seen with the final sketches the design is very similar to the final layout.

# Item 4: Flowchart

There is a flowchart in the supporting documents which was developed to show the ways specific users can interact with the timetabling system. This is very useful because it helps me understand the user permissions required to access specific parts of the timetable system before I start developing it. This makes it easy to remember what type of user can access what when testing the application to see if it has been setup properly. I have included screenshots as well to show how the timetable is different depending on what type of user is logged on.

# Item 5: Unit Tests

In the supporting documents there is a folder for unit tests, in that there are the unit tests themselves, the objects they relate to and images of the outputs to the tests. These tests were very helpful because they helped guarantee that the helper functions for laying out the timetable and password management were working as intended.