In this assessment, I encountered many of the problems commonly seen in real-life software development, both technical and social. Due to this being a group project between people of differing timetables, the first issue we ran into was one of scheduling. Finding the time for all of us to be together, to effectively collaborate on the project was, whilst initially difficult, achieved relatively swiftly.

We then divided the questions among ourselves to allow us to continue work on the code in our own time. Over this time, we stayed in contact, assisting each other where necessary. Finally, we reconvened to finalize any unfinished queries, concatenate our files, and debug where it was needed. In order to effectively collaborate and, to the best of our abilities, imitate a real-life software development team, We used a remote GitHub repository with branching to save and merge our work. This allowed for a (almost) seamless transition from 5 individual documents to 1, finished project.

For my part, I completed questions 4, 9, 14, 19 & 24 and I set up and managed the GitHub repo. My first task was the initial setup of the repo, including creating 5 separate branches, one for each member of the team. This created an easy-to-use and efficient method of collaboration as well as giving us useful practice with using GitHub and branching.

I then began my questions, starting with Q4. I completed this with little difficulty, only having to check the validity of the '%' symbol as a marker of text and the 'LIKE' keyword as a marker of similarity.

Q9 posed a slightly greater challenge, namely in the concatenation of 2 columns. Initially, I found that the method I was using (the '+' symbol) was not valid in the version of SQL that we were using, most likely it was from mySQL or similar rather than the SQLite that we were using. I then, after further research, found the '||' symbol that did work in our version and, with a little troubleshooting of syntax, found a query that gave me the required result.

In Q14, I, in the beginning, did not spot the need, or at least usefulness, of a nested statement, attempting instead to carry all the steps out in a single query. This led to problems whereby where clauses had nothing to compare to. Upon realization of the efficacy of a nested query, these issues quickly went away, resulting in a working, albeit slightly inefficient, statement.

Moving onto Q19, this introduced a situation where, seemingly, the only solution was nesting, and in fact, in this case, a double nested query. This, however, was spotted and implemented almost immediately as the previous question had brought their ability to my attention. This led to Q19 being written with little difficulty but creating what may not be the most efficient statement.

Finally, Q24 posed the biggest challenge by requiring the use of the 'EXISTS' keyword, something I had very little experience with; Due to this, I opted to spend some time researching said keyword to better understand its use case. Upon the completion of this research and the realization of its similarity to nested statements (something that, thanks in no small part to this assessment, I had extensive knowledge of), I was able to implement the query without much hesitation or error.

Once all the statements were completed by their respective members of the group, I collected and merged all of the documents using the GitHub mentioned earlier. It required some conflict resolution but, thanks in part to the branching created in the setup, this went off mostly without issue.

There were some issues with the results in the .rb file not matching with what was coming from the database, presumably due the database being added to post-creation of the file. This meant that in 1 or 2 situations, we had to account for the file in our queries as well as answering the questions. In one instance, this led to a 'No match' result in the file whilst the statement was, in fact correct, due to there being additional entries in the .db file (this was the final question, Q27).

BRYN ELLIOTT, GROUP I