Quiz Challenge Summary

# How I went about this challenge

The way I went about this challenge was by first drawing diagrams which have been provided. By drawing these first it helped me to have a better visual understanding of what the user journey through the application would be like, what components connected to each other and the relationships between them.

Once I had created my use case diagrams to give me a better high-level understanding of the application, I realized the best way to approach this challenge was to use a spring framework application with RESTful functionality. With it having this functionality I could use CRUD commands from an admin level to create/read/update/delete tables and then persist them to a database based on the information provided by the administrator.

To help me better understand the back-end database side I created an entity relationship diagram which showed the relationships between these databases. By doing this it allowed me to see how they interacted with each other and how to build my application around this.

With all this together I then started to implement my application by creating my entities based on these tables that I would need. Once I had created the entities, I then created my controllers for them that would take user input and based on this it would retrieve information from the database or update it etc. I then finally created repositories that extended the JpaRepository which was what enabled me to use methods for my database objects such as findAll(). I could use the list of provided methods from this interface to help me retrieve data from my databases to retrieve information for them such as their total score or questions answered.

# If I had more time

Towards the end I was able to connect my application with Docker. Unfortunately, I didn’t have time to fully get it working completely with the database back end but I was able to containerise my application and based on the URL I could retrieve data from my database.

If I had more time, I would’ve fleshed out the application by creating a fully working admin page with CRUD options to create and manipulate databases and populate them with questions and answers. I also would’ve finished the logic for the user journey and added the extra details for working out what quizzes they have done and provide them with their mean score etc.