



PROGRESS OUTCOME 5

A bowls club database

Context

The secretary of the neighbourhood bowls club is Jack's grandfather. He needs a way of organising membership details, subscriptions, and performance rankings for the club. He has approached Jack to help set up a system to manage this and provided him with the necessary data.

In consultation with his grandfather, Jack has identified the information the club needs and the end-user requirements. These include producing a report showing all club members' first and last names and whether their membership fees are outstanding.

The club also wants a tally of each member's scores, so that they can award certificates to high-scoring players.



Insight 1: Design decisions and stakeholder consultation

I sketched out a plan for the database structure using two tables, one for membership details and one for game scores. I had to consider the most efficient method of structuring the fields and tables to avoid duplicating data. I also had to think about how the user might want to enter, find, and extract data from the database and the most efficient way to do this. Finally, I considered how the tables might link to each other.

I consulted grandad about my plan, including the layout and linking of the two tables, the fields and data types, and the validation rules I intended to use. He was happy for me to proceed. We also discussed designing a form for him to use when entering data. We decided I should add buttons to the form for entering a new record, printing, and closing the database.



Insight 2: Developing the outcome

I set up a folder to store the database and proceeded to set up the two tables.

I added the following validation rules:

- telephone number: limited to ten characters with a warning message as a prompt for invalid numbers
- email address: ensuring that the @ symbol is included and a warning if it isn't
- date of birth: ensuring that a 4-digit year and viable date are entered.

In the game scores table, I added a field for total score and created a calculation that would add up the scores to keep a running tally for each member.



Insight 3: Testing the basic outcome

Once I had set up the tables, I entered a couple of members' details and tested the validations for the date of birth, email, and telephone number fields.

To determine that my tables were linked correctly, I checked that the membership ID in the game scores table brought up the correct member details from the membership details table. I also tested my calculation field to see if the scores were adding correctly.

Everything worked well, so I continued to add the rest of the records.



Insight 4: Developing the data-entry form

I developed a form for entering data, resized some of the fields so that the data displayed accurately, and added buttons to the form.

I then had grandad test the form to make sure it functioned as intended and was easy for him to use. He wasn't happy with the placement of the buttons because he had to scroll down to find them, so I moved them to the side of the form.



Insight 5: Creating the report and certificate

I performed a query to show all members with fees outstanding and their membership details and used the customised design tools to produce a report containing all the required fields.

I performed a second query to extract the data for the certificates and populated a list for grandad. He was able to use this data to create a merge that allowed him to easily print out all the certificates.