In this task, you will use what you have learned so far to design and implement a small database. You will be able to share access to the database with other students for their evaluation and feedback.

**Stage 1: Select and model your data**

1. **Choose a source of open data**. This may be the same one that you used in 1.104 and 1.206.
2. **Draw an ER diagram** with no more than 3-4 entities and no more than 20 attributes in total. Use a drawing program, a pen and paper or (if you have one) a whiteboard.
3. **Add cardinality** to your ER diagram. If the result is incompatible with the relational model (if there are m:n relationships), adjust your diagram.
4. When you are happy, **make a pdf or image file** of the diagram (make a photo or scan of any physical diagrams)

**Stage 2: Create a Database**

1. Run the lab environment below and **make a new database**.
2. **Create tables** for every entity in your diagram, with columns for each attribute. Make sure you declare a Primary Key for each table and a Foreign Key for any relationships.
3. **Add some instance data** (a few rows for each table) and see how well it works. If you need to make adjustments, do. Note the changes you've had to make.

**Stage 3: Query the database**

1. What do you want to know from the database? **Try running some queries**.
2. **Evaluation**: Does it work as you'd like it to? Is there any data, structure or querying ability that you are missing?

You will be sharing the results of this lab with your fellow students as a peer evaluation.