

Database Design and Development
Database Project
Due Date 27 April 2021

The aim of the project is to assess the student's ability to design and construct a database that can be deployed in a commercial database management system. The initial phase of the project requires the student to design a relational database for a scenario given out in class. The business rules of the scenario must be developed and implemented via the database schema and queries as follows:

1. Relational Schema
 - a. Tables
 - b. Attributes
 - c. Primary Keys
 - d. Foreign Keys
2. Test Data
3. Queries
 - a. Select
 - b. Insert
 - c. Update
 - d. Delete
4. Use the database created to demonstrate Codd's rules with respect to your individual database. The first 10 rules **MUST** be demonstrated using SQL including an explanation (rules 11 and 12 do not require SQL).

I will post a Video to Moodle closer to the submission date. For completeness I am outlining the process here. The above are to be submitted to Moodle as follows:

1. Relational Schema
 - a. PDF schematic of the database i.e. tables and relationships
 - b. SQL script to create the database (EXPORT file)
2. Queries
 - a. One SQL script with each query separated along with comments.
3. PDF file with each of Codd's Rules clearly labeled followed by the SQL code demonstration and narrative explaining.
4. Project Report

A project report in PDF (Max 2 pages) is also to be submitted, it should contain a brief explanation of all elements of the project along with any specific instructions required for the implementation of your project.

The marks for the database subject will be allocated as follows:

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| Entity Relationship Diagram (ERD) | 30% |
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|------------------------------------------|-----|
| Relational Database Solution and Queries | 40% |
| Codds' Rules | 30% |

The project elements of the course will be assigned marks under the following headings:

1. Functionality
2. Architecture (Data Model)
3. Complexity
4. Originality / Innovation
5. Completeness