

3. Data Definition Language (DDL) and Data Manipulation Language (DML)

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Candidates should be able to:

Show understanding that DBMS carries out all creation / modification of the database structure using its Data Definition Language (DDL)

Show understanding that the DBMS carries out all queries and maintenance of data using its DML

Show understanding that the industry standard for both DDL and DML is Structured Query Language (SQL)

Understand given SQL (DDL) commands and be able to write simple SQL (DDL) commands using a sub-set of commands

Write an SQL script to query or modify data (DML) which are stored in (at most two) database tables

Notes and guidance

Understand a given SQL script

Create a database (CREATE DATABASE)

Create a table definition (CREATE TABLE), including the creation of attributes with appropriate data types:

- CHARACTER
- VARCHAR(n)
- BOOLEAN
- INTEGER
- REAL
- DATE
- TIME

change a table definition (ALTER TABLE)

add a primary key to a table (PRIMARY KEY (field))

add a foreign key to a table (FOREIGN KEY (field) REFERENCES Table (Field))

Queries including SELECT... FROM, WHERE, ORDER BY, GROUP BY, INNER JOIN, SUM, COUNT, AVG

Data maintenance including. INSERT INTO, DELETE FROM, UPDATE
