

Overview

This standard is about creating multi-table relational database implementations to store, process and retrieve data using database software.

This involves planning, designing and deploying multi-table database implementations. This includes creating forms and database queries to submit, extract and report on data. It also includes data migration and population of data into databases.

This standard is for those who need to create multi-table database implementations to store, process and retrieve data using database software to meet their own needs or as part of their duties.

Performance criteria

You must be able to:

1. Identify database requirements with stakeholders
2. Plan a database implementation with multiple tables to meet requirements
3. Construct a multi-table database with appropriate fields and properties using approved tools and techniques
4. Create relationships between database tables
5. Develop forms to access, enter, edit and organise data in a database in line with requirements
6. Create and run database queries to correctly retrieve, update and delete selected data
7. Produce database reports from a multi-table database in line with organisational requirements
8. Migrate data into database records accurately

Knowledge and understanding

You need to know and understand:

1. What types of information are stored in a multiple-table database
2. How a database design enables data to be organised across multiple tables
3. How to design a multi-table database implementation
4. How to create multi-table database queries
5. How to maintain data integrity in database table structures
6. How to create reports from multiple-table databases
7. The use of indexes and key fields to organise data in multi-table databases
8. How relationships are established in a multi-table database,
9. How data is structured in a multi-table database
10. The main field characteristics of a data record including data type, field name, field size, field format
11. How to check for data integrity
12. What is meant by data migration
13. The main problems that can arise with database tables including redundant data and duplication
14. The different relationships that can be made between database tables, including one to one; one to many; many to many

TECHDUBB3



Create a database implementation

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