

Domain

Title:

Level: 4

WEB DEVELOPMENT

Create basic database

UNIT ID: 2313

Credits: 10

Purpose

This unit standard is intended for those who create basic database. People credited with this unit standard are able to demonstrate an understanding of SQL, perform Data Definition Language (DDL) commands, perform Data Manipulation Language (DML) commands and perform intermediate SELECT commands.

This unit standard is intended for those who work as web developers.

Special Notes

1. Entry information:

Prerequisite:

- None

2. This unit standard is to be delivered and assessed in the context of information and communication technology.

3. Assessment evidence may be collected from a real or a simulated workplace in which ICT operations are carried out.

4. Tools and equipment may include but are not limited to computer, external devices, storage devices and basic computer applications.

5. Glossary of terms

- *'Operating System' the low-level software that supports a computer's basic functions, such as scheduling tasks and controlling peripherals.*
- *'Structured Query Language' (SQL) is a programming nomenclature used to do set operations (like union, intersect, and minus) to organize and retrieve information in relational databases, based on "set theory and relational algebra*
- *'Entity-Relationship Diagram' (ERD) refers a data modelling technique that graphically illustrates an information system's entities and the relationships between those entities.*

6. Performance of all elements in this unit standard must comply with industry standards.

7. Regulations and legislation relevant to this unit standard include the following:

- Labour Act 2007(Act No 11, 2007).

- Regulations relating to the health and safety of employees at work under schedule 1 (2) of the Labour Act No.11 of 2007 and all subsequent amendments.

Quality Assurance Requirements

This unit standard and others within this sub-field may be awarded by institutions which meet the accreditation requirements set by the Namibia Qualifications Authority and the Namibia Training Authority and which comply with the national assessment and moderation requirements. Details of specific accreditation requirements and the national assessment arrangements are available from the Namibia Qualifications Authority on www.namqa.org and the Namibia Training Authority on www.nta.com.na

Elements and Performance Criteria

Element 1: Demonstrate an understanding of SQL

Range

Data Definition Language commands may include but not limited to create, alter, drop and rename.

Data Manipulation Language commands may include but not limited to insert, update, select and delete.

Reserved terms may include but not limited to commit, sysdate, Count, Min, Max and Order by.

Performance Criteria

- 1.1 Structured Query Language (SQL) syntax is explained.
- 1.2 Special characters of SQL are listed and explained
- 1.3 Reserved terms are listed and explained.
- 1.4 Data Definition Language (DDL) commands are explained.
- 1.5 Data Manipulation Language (DML) commands are explained.

Element 2: Perform Data Definition Language (DDL) commands

Performance Criteria

- 2.1 ERD diagram is explained and illustrated.
- 2.2 CREATE TABLE commands are performed.

- 2.3 Fields to database tables are added with appropriate datatypes.
- 2.4 Constraints are added to tables as per the requirement.
- 2.5 UPDATE TABLE commands are performed.
- 2.6 ALTER commands are performed.
- 2.7 DROP TABLE commands are performed.
- 2.8 RENAME TABLE commands are performed.

Element 3: Perform Data Manipulation Language (DML) commands

Performance Criteria

- 3.1 INSERT statement is performed.
- 3.2 UPDATE statement is performed.
- 3.3 SELECT statement is performed.
- 3.4 DELETE statement is performed.

Element 4: Perform intermediate SELECT commands

Performance Criteria

- 4.1 SELECT commands are performed.
- 4.2 SELECT commands with WHERE clauses are performed.
- 4.3 SELECT commands with JOIN on 2 tables are performed.
- 4.4 SELECT commands with JOIN on 2 tables with WHERE clauses are performed.

Registration Data

Subfield:	Information and Communication Technology
Date first registered:	30 July 2020
Date this version registered:	30 July 2020
Anticipated review:	2025
Body responsible for review:	Namibia Training Authority