SQL STRUCTURED QUERRY LANGUAGE

What is SQL?

- SQL stands for Structured Query Language
- It's a standard language for accessing and manipulating databases.

What can SQL do?

- SQL can execute queries against a database
- SQL can retrieve data from a database
- SQL can insert records in a database
- SQL can update records in a database
- SQL can delete records from a database
- SQL can create new databases
- SQL can create new tables in databases

SQL SYNTAX

Database Tables

A database contains one or more tables which contains records with data. Each table is identified by a name (e.g. "Customers" or "Orders").

Sample section of a database:

CustomerID	CustomerName	ContactNumber	Address	City	PostalCode	Country
1	Josh Josh	+2330123456	123 Adum	Kumasi	233	Ghana
2	Adwoa Yankey	+23312184513	22 Tema	Accra	233	Ghana
3	Kwaku Manu	+2336565659	12 Street, 1H	Sunyani	233	Ghana
4	Around the Horn	+2339695874	1A , Goldmine Avenue	Obuasi	233	Ghana
5	Kofi Jesus	+233987456	No. 8 Oil road	Takoradi	233	Ghana

The table above contains five records (one for each customer) and seven columns (CustomerID, CustomerName, ContactNumber, Address, City, PostalCode, and Country).

SQL STATEMENTS

Most of the actions you need to perform on a database are done with SQL statements.

The following SQL statement selects all the records in the "Customers" table:

Example

SELECT * FROM Customers;

- SQL keywords are not case sensitive; select is the same as SELECT
- Semicolon(;), most database systems require a semicolon at the end of each statement as a standard to separate each SQL statement. In this tutorial, we shall be using the semicolon(;)

SQL COMMANDS

Some of The Most Important SQL Commands

SELECT extracts data from a database

UPDATE updates data in a database

DELETE deletes data from a database

INSERT INTO inserts new data into a database

CREATE DATABASE creates a new database

ALTER DATABASE modifies a database

CREATE TABLE creates a new table

ALTER TABLE modifies a table

DROP TABLE deletes a table

CREATE INDEX creates an index (search key)

DROP INDEX deletes an index