

# Intro to SQL



# LESSON OBJECTIVES



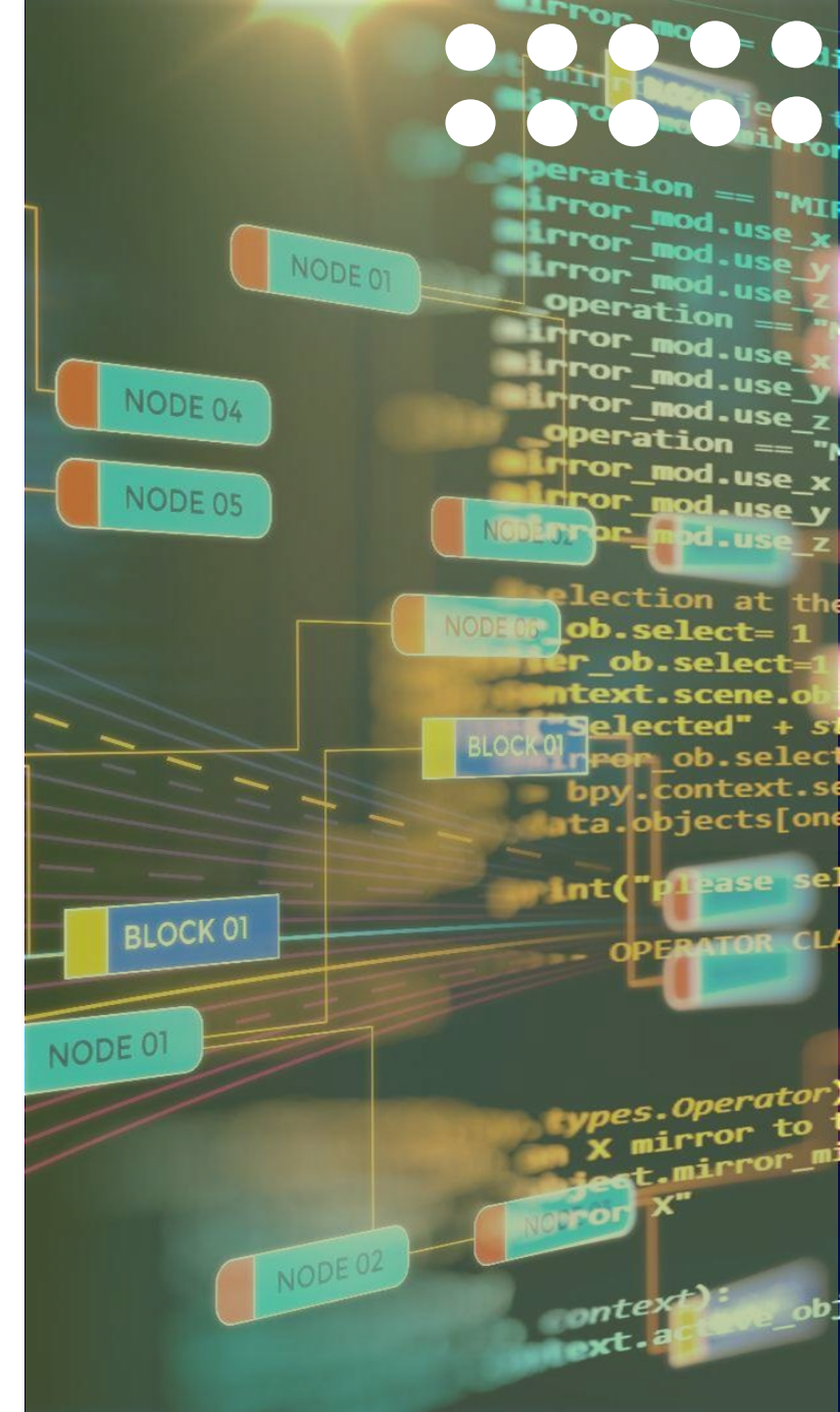
Understand and implement the various types of queries such as, DDL,DML,DCL,TCL

# What is SQL?

- SQL stands for Structured Query Language
- SQL lets you access and manipulate databases.

## RDBMS

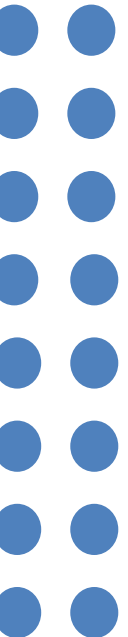
- RDBMS stands for Relational Database Management System.
- The data in RDBMS is stored in database objects called tables. A table is a collection of related data entries and it consists of columns and rows.



# Data Definition Language(DDL)

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- Deals with database schemas and descriptions of how the data should be appear in the database.
- CREATE- to create a database and its objects like (table, index, views, store procedure,
- ALTER - alters the structure of the existing database
- DROP - delete objects from the database
- TRUNCATE - remove all records from a table, including all spaces allocated for the records are removed
- RENAME - rename an object



# Data Manipulation Language(DML)

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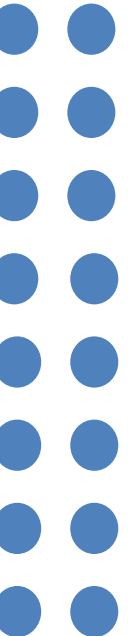
- are SQL commands that deal with the manipulation of data present in the database .
- INSERT - Insert data into a table.
- UPDATE - Update existing data within the table.
- DELETE - Delete records from the database table.
- LOCK - Table control concurrency
- CALL - Call a PL/SQL or JAVA subprogram
- EXPLAIN PLAN - Describe the access path to data



# Data Control Language(DCL)

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- includes commands such as GRANT and REVOKE which mainly deal with the rights, permissions, and other controls of the database system.
- GRANT - Assigns new privileges to a user account, allowing access to specific database objects, actions, or functions.
- REVOKE - Removes previously granted privileges from a user account, taking away their access to certain database objects or actions.



# Transaction Control Language(TCL)

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- Transactions group a set of tasks into a single execution unit. Each transaction begins with a specific task and ends when all the tasks in the group are successfully completed. If any of the tasks fail, the transaction fails.
- BEGIN TRANSACTION - Starts a new transaction.
- COMMIT - Saves all changes made during the transaction.
- ROLLBACK - Undoes all changes made during the transaction
- SAVEPOINT - Creates a savepoint within the current transaction

