

The background features a light grey gradient with several decorative elements: a thick purple horizontal bar at the top, a light grey rounded rectangle below it, and several curved, brush-stroke-like shapes in light grey and purple scattered across the page.

Introduction to Database

What is Database?

Storage system

Organized collection of data

Relational database stores data as tables (Rows and Columns)

Database management makes easy for retrieval, manage and update

Indexing is done for finding data on fast manner

Popular Databases

MySQL

Oracle

SQL Server

PostgreSQL

NOSQL

MongoDB

Cassandra



W h a t i s S Q L ?

Structured Query Language

Language to communicate with the database

Originally developed by IBM

Contains SQL commands

Features of SQL

Easily access any data within database

Fast in retrieving large volume of data

Its versatile with all database systems from Oracle, MS-SqlServer, MySQL

Helps to manage database without lots of coding

Applications of SQL

Create database

Define structure

Maintain existing database

Powerful to enter, modify and extract data in database

Client/Server language to connect front-end and back-end

Protect database from unauthorized access

What is a table?

A dimensional representation of data into rows and columns

Contains a tablename to identify

Columns are called as Fields

Rows are called as Records/Tuples

How a Table looks

Table name: Outlet

Outlet_Size	Outlet_Location_Type	Outlet_Type	Item_Outlet_Sales
Medium	Tier 1	Supermarket Type1	3735.138
Medium	Tier 3	Supermarket Type2	443.4228
Medium	Tier 1	Supermarket Type1	2097.27
Low	Tier 3	Grocery Store	732.38
High	Tier 3	Supermarket Type1	994.7052