# Structured Query Language

## Data manipulation scripts

* Insert at least 10 records into each table.

CREATE TABLE Employees (

Emp\_Id INT PRIMARY KEY,

Emp\_Name VARCHAR(50),

Emp\_Email VARCHAR(50),

Emp\_Phone VARCHAR(20),

Emp\_Position VARCHAR(50),

Emp\_Salary DECIMAL(10,2)

);

INSERT INTO Employees VALUES(101,"Lucy\_Burns","lucyburns@gmail.com",7590936029,"Manager",80000);

INSERT INTO Employees VALUES(102,"May\_Burns","mahiburns@gmail.com",8480936029,"Cashier",36000);

INSERT INTO Employees VALUES(103,"Robyn\_Davies","robyndavies@gmail.com",9480936029,"Cashier",36000);

INSERT INTO Employees VALUES(104,"Rob\_Brown","robbrown@gmail.com",4480936029,"Stocking&Unloading",36000);

INSERT INTO Employees VALUES(105,"Ian\_Mitchell","ian32@gmail.com",9980936029,"Stocking&Unloading",36000);

INSERT INTO Employees VALUES(106,"Sam\_Beard","sam3@gmail.com",7880936029,"CartAttendant",39000);

INSERT INTO Employees VALUES(107,"Ano\_Museba","anomuseba@gmail.com",9480936129,"Optician",56000);

INSERT INTO Employees VALUES(108,"Akiri\_Yoshino","akiri@gmail.com",6880936029,"Pharmacy\_Technician",45000);

INSERT INTO Employees VALUES(109,"Casey\_Lugada","casey19@gmail.com",3880936029,"Stocking&Unloading",36000);

INSERT INTO Employees VALUES(110,"John\_Paul","john12@gmail.com",5480936029,"CartAttendant",34000);

Select \* from Employees;

Create Table Suppliers(

Supplier\_ID INT PRIMARY KEY,Supplier\_Name VARCHAR(50),Supplier\_Email VARCHAR(50),Supplier\_Phone INT,Supplier\_Address Varchar(50)

);

Insert into Suppliers VALUES(201,"Arathi\_PS","arathi12@gmail.com", 1234567891,"1701,Unilever,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(202,"Yuka\_Rose","yukta@gmail.com", 1334567891,"1702,Pepsi,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(203,"Arshia\_Biju","arshiai1@gmail.com", 1434567891,"1703,Mars,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(204,"Preema\_Kotwani","preema@gmail.com", 1534567891,"1703,Nestle,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(205,"Priyanka\_Das","priyanka1@gmail.com", 1634567891,"1704,J&J,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(206,"Malathi\_Khurana","malthi1@gmail.com", 1734567891,"1706,Kelloggs's,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(207,"Barleen\_Kaur","barleen1@gmail.com", 1834567891,"1707,Toblerone,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(208,"sadia\_Fahrah","malthi1@gmail.com", 1934567891,"1707,Kitkat,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(209,"Afrah\_Mohd","afrah1@gmail.com", 1004567891,"1709,Dorito,Ellis Dr,CA,95901");

Insert into Suppliers VALUES(210,"Harika\_Chopra","harika1@gmail.com", 1034567891,"1710,Justice,Ellis Dr,CA,95901");

Select \* from Suppliers;

CREATE TABLE Customers (

CustomerId INT PRIMARY KEY,

CustomerName VARCHAR(50),

CustomerEmail VARCHAR(50),

CustomerPhone VARCHAR(20)

);

INSERT INTO Customers VALUES (1, 'John Smith', 'john.smith@gmail.com', '123-456-7890');

INSERT INTO Customers VALUES (2, 'Jane Doe', 'jane.doe@gmail.com', '555-555-1212');

INSERT INTO Customers VALUES (3, 'Bob Johnson', 'bob.johnson@gmail.com', '555-123-4567');

INSERT INTO Customers VALUES(4, 'Sarah Johnson', 'sarah.johnson@gmail.com', '555-987-6543');

INSERT INTO Customers VALUES (5, 'Mike Anderson', 'mike.anderson@email.com', '555-555-5555');

INSERT INTO Customers VALUES (6, 'Emily Wilson', 'emily.wilson@gmail.com', '555-111-2222');

INSERT INTO Customers VALUES (7, 'David Lee', 'david.lee@gmail.com', '555-333-4444');

INSERT INTO Customers VALUES (8, 'Jennifer Kim', 'jennifer.kim@gmail.com', '555-777-8888');

INSERT INTO Customers VALUES (9, 'Timothy Chen', 'timothy.chen@gmail.com', '555-444-5555');

INSERT INTO Customers VALUES (10, ' Harsh Keny', 'harsh.keny@gmail.com', '890-567-1234');

Select \* from Customers;

CREATE TABLE Products (

product\_id INT PRIMARY KEY,

product\_name VARCHAR(50),

product\_description VARCHAR(50),

product\_price DECIMAL(7,2),

supplier\_ID INT

);

-- Insert 10 records into Products table

INSERT INTO Products (product\_id, product\_name, product\_description, product\_price,supplier\_ID)

VALUES

(301, 'T-Shirt', 'Cotton T-Shirt', 20.00,210),

(302, 'Jeans', 'Blue Jeans', 49.99,204),

(303, 'Sneakers', 'Running Shoes', 69.99,203),

(304, 'Hoodie', 'Zip-Up Hoodie', 39.99,204),

(305, 'Baseball Cap', 'Adjustable Cap', 15.00,210),

(306, 'Sunglasses', 'Aviator Sunglasses', 29.99,210),

(307, 'Backpack', 'Hiking Backpack', 79.99,204),

(308, 'Smartphone', '5G Smartphone', 799.99,205),

(309, 'Tablet', '10-inch Tablet', 299.99,202),

(310, 'Laptop', '13-inch Laptop', 999.99,202);

Select \* from Products;

CREATE TABLE Orders (

order\_id INT PRIMARY KEY,

customer\_id INT,

order\_date DATE,

total\_price DECIMAL(7,2),

tax DECIMAL(7,2)

);

INSERT INTO Orders (order\_id, customer\_id, order\_date, total\_price, tax)

VALUES

(401, 1, '2023-05-03', 49.99, 5.00),

(402, 2, '2023-05-02', 29.99, 3.00),

(403, 3, '2023-05-01', 999.99, 10.00),

(404, 4, '2023-04-30', 49.99, 15.00),

(405, 5, '2023-04-29', 20.00, 2.00),

(406, 6, '2023-04-28', 30.00, 3.00),

(407, 7, '2023-04-27', 999.99, 10.00),

(408, 8, '2023-04-26', 69.99, 7.00),

(409, 9, '2023-04-25', 39.99, 4.00),

(410, 10, '2023-04-24', 999.99, 10.00);

Select \* from Orders;

CREATE TABLE Order\_Items (

orderItem\_id INT PRIMARY KEY,

product\_id INT,

quantity INT,

price DECIMAL(7,2)

);

INSERT INTO Order\_Items (orderItem\_id, product\_id, quantity, price)

VALUES (1, 301, 2, 999.99),

(2, 302, 1, 49.99),

(3, 303, 3, 39.99),

(4, 304, 1, 29.99),

(5, 305, 2, 79.99),

(6, 306, 1, 799.99),

(7, 307, 4, 20.00),

(8, 308, 1, 299.99),

(9, 309, 2, 15.00),

(10,310, 1, 999.99);

* Delete a record from any table using its unique identifier (primary key) field.

DELETE FROM Order\_Items WHERE orderItem\_id = 10;

* Update a record in any table using its unique identifier (primary key) field.

UPDATE Order\_Items

SET quantity = 1, price= 30

WHERE orderItem\_id = 9;

* Add 2 to 3 of your own DML scripts to manipulate data in your database.

UPDATE Products

SET Price = 9.99

WHERE ProductID = 123;

INSERT INTO Employees VALUES(111,"Lu\_Burns","luburns@gmail.com",1234536029,"Manager",70000);

Reporting scripts

c. Provide 2 to 3 aggregate function scripts to show use of AVG, MAX, MIN, COUNT or SUM.

a. Total number of orders by customer:

SELECT Customers.Customer\_Name, COUNT(Orders.Order\_ID) as TotalOrders FROM Customers LEFT JOIN Orders ON Customers.Customer\_ID = Orders.Customer\_ID GROUP BY Customers.Customer\_Name;

b. Total number of orders by product:

SELECT Products.Produc\_tName, COUNT(Order.Order\_ID) as TotalOrders FROM Products LEFT JOIN OrderDetails ON Products.Product\_ID = Order.Product\_ID GROUP BY Products.Product\_Name;

SELECT AVG(product\_price) AS avg\_price FROM Products;

SELECT MAX(Emp\_Salary) AS max\_salary FROM Employees;

How does this design fulfill the mission and/or goals of your target organization?

Firstly, a properly designed database can improve the efficiency and accuracy of Walmart's

operations. By ensuring that data is stored in a structured and organized manner, Walmart's

employees can quickly access the information they need to make informed decisions. This can

lead to better supply chain management, inventory control, and customer service.

Secondly, a database that is designed to handle large amounts of data can help Walmart

make more informed business decisions. By analyzing customer behavior, purchasing patterns,

and other trends, Walmart can develop more effective marketing strategies and product offerings.

They can also identify areas where they may be losing money, such as overstocked items

or inefficient supply chain processes.

Overall, a well-designed database can provide Walmart with a competitive edge in the

retail industry. By improving operational efficiency, enhancing data analysis capabilities, and

helping them make better business decisions, Walmart can continue to grow and thrive in an

increasingly competitive marketplace.(Kelly,2018)

Reference

*How big data analysis helped increase Walmart's sales turnover?* (no date) *ProjectPro*. Available at: https://www.projectpro.io/article/how-big-data-analysis-helped-increase-walmarts-sales-turnover/109 (Accessed: April 19, 2023).