**DAY-3 SQL(PART 2)**

**SUBQUERY**: A Subquery or Inner query or a Nested query is a query within another SQL query and embedded within the WHERE clause.

A subquery is used to return data that will be used in the main query as a condition to further restrict the data to be retrieved.

Subqueries can be used with the SELECT, INSERT, UPDATE, and DELETE statements along with the operators like =, <, >, >=, <=, IN, BETWEEN, etc

**JOIN:** A join clause is used to combine rows from two or more tables, based on a related column between them.

Here are the different types of the JOINs in SQL:

* (INNER) JOIN: Returns records that have matching values in both tables

SELECT Orders.OrderID, Customers.CustomerName, Orders.OrderDate

FROM Orders

INNER JOIN Customers ON Orders.CustomerID=Customers.CustomerID

* LEFT (OUTER) JOIN: Returns all records from the left table, and the matched records from the right table
* RIGHT (OUTER) JOIN: Returns all records from the right table, and the matched records from the left table.
* FULL (OUTER) JOIN: Returns all records when there is a match in either left or right table.

**FROM CLAUSE:** The SQL FROM clause is used to list the tables and any joins required for the SQL statement.

**TABLE1: orders**

CREATE TABLE `priyanka\_sql`.`orders` (

`OrderID` INT NOT NULL,

`CustomerId` INT NOT NULL,

`OrderDate` DATE NULL,

`shipperID` INT NULL,

PRIMARY KEY (`OrderID`));

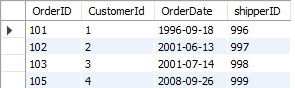
INSERT INTO `priyanka\_sql`.`orders` (`OrderID`, `CustomerId`, `OrderDate`,`shipperID`) VALUES ('101', '1', '1996-09-18', '996');

INSERT INTO `priyanka\_sql`.`orders` (`OrderID`, `CustomerId`, `OrderDate`,`shipperID`) VALUES ('102', '2', '2001-06-13','997');

INSERT INTO `priyanka\_sql`.`orders` (`OrderID`, `CustomerId`, `OrderDate`,`shipperID`) VALUES ('103', '3', '2001-07-14', '998');

INSERT INTO `priyanka\_sql`.`orders` (`OrderID`, `CustomerId`, `OrderDate`,`shipperID`) VALUES ('105', '4', '2008-09-26', '999');

Select \* from priyanka\_sql.orders;



**TABLE2: customers**

CREATE TABLE `priyanka\_sql`.`customers` (

`CustomerID` INT NOT NULL,

`CustomerName` VARCHAR(45) NULL,

`Address` VARCHAR(45) NULL,

`Country` VARCHAR(45) NULL,

PRIMARY KEY (`CustomerID`));

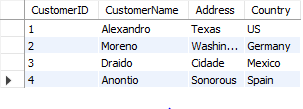
INSERT INTO `priyanka\_sql`.`customers` (`CustomerID`, `CustomerName`, `Address`, `Country`) VALUES ('1', 'Alexandro', 'Texas', 'US');

INSERT INTO `priyanka\_sql`.`customers` (`CustomerID`, `CustomerName`, `Address`, `Country`) VALUES ('2', 'Moreno', 'Washington', 'Germany');

INSERT INTO `priyanka\_sql`.`customers` (`CustomerID`, `CustomerName`, `Address`, `Country`) VALUES ('3', 'Draido', 'Cidade', 'Mexico');

INSERT INTO `priyanka\_sql`.`customers` (`CustomerID`, `CustomerName`, `Address`, `Country`) VALUES ('4', 'Anontio', 'Sonorous', 'Spain');

SELECT \* FROM priyanka\_sql.customers;



**TABLE3: shipper**

CREATE TABLE `priyanka\_sql`.`shipper` (

`shipperID` INT NOT NULL,

`shipperName` VARCHAR(45) NULL,

PRIMARY KEY (`shipperID`));

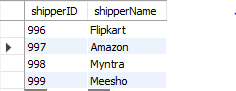
INSERT INTO `priyanka\_sql`.`shipper` (`shipperID`, `shipperName`) VALUES ('999', 'Meesho');

INSERT INTO `priyanka\_sql`.`shipper` (`shipperID`, `shipperName`) VALUES ('998', 'Myntra');

INSERT INTO `priyanka\_sql`.`shipper` (`shipperID`, `shipperName`) VALUES ('997', 'Amazon');

INSERT INTO `priyanka\_sql`.`shipper` (`shipperID`, `shipperName`) VALUES ('996', 'Flipkart');

SELECT \* FROM priyanka\_sql.shipper;



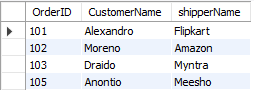
* **INNER JOIN OF ABOVE THREE TABLES:-**

select orders.OrderID,customers.CustomerName,shipper.shipperName

from ((orders

inner join customers on orders.CustomerID=customers.CustomerID)

inner join shipper on orders.shipperID=shipper.shipperID);



* **LEFT JOIN OF ABOVE THREE TABLES:-**

SELECT OrderID,OrderDate

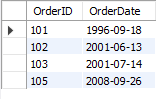
FROM orders

LEFT JOIN customers

ON orders.OrderID = customers.CustomerID

left join shipper

on orders.OrderID = shipper.shipperID



* **RIGHT JOIN OF ABOVE THREE TABLES:-**

SELECT o.OrderDate,c.CustomerID,c.CustomerName,s.shipperID,s.shipperName

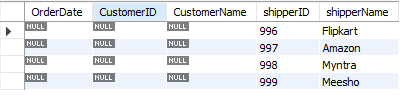
FROM orders o

right JOIN customers c

ON o.OrderID = c.CustomerID

right join shipper s

on c.CustomerID = s.shipperID;



**QUERIES DEMONSTRATE SUB-QUERY:-**

1. **SELECT**

SELECT CustomerName,Country

from customers

 where CustomerId>2

1. **INSERT**

INSERT INTO `priyanka\_sql`.`shipper` (`shipperID`, `shipperName`)

VALUES ('1000', 'Ajio');

1. **UPDATE**

UPDATE `priyanka\_sql`.`customers` SET `CustomerName` = 'Driado Ce' WHERE (`CustomerID` = '3');

1. **DELETE**

delete from orders

where OrderID='135'