Lab Sheet - 7

Ques 1 → list all customers who have placed at least one order along with the article name and quantity.

```
SELECT
    Customers.CustomerName,
    Articles.ArticleName,
    Orders.Quantity
FROM
    Customers
INNER JOIN Orders
    ON Customers.CustomerID = Orders.CustomerID
INNER JOIN Articles
    ON Orders.ArticleID = Articles.ArticleID;
```

Ques 2 → Retrieve all articles that have been ordered along with the corresponding customer price.

```
SELECT
    Articles.ArticleName,
    Customers.CustomerName,
    Orders.Price
FROM
    Orders
INNER JOIN Articles
    ON orders.ArticleID = Articles.ArticleID
INNER JOIN Customers
    ON Orders.CustomerID = Customers.CustomerID;
```

Ques 3 → list all customers and their orders. Include Customers who have not placed any order.

```
SELECT
    Customers.CustomerName,
    Orders.OrderID,
    Orders.OrderDate
FROM
    Customers
LEFT JOIN Orders
    ON Customers.CustomerID = Orders.CustomerID;
```

Ques 4 → Show all customers and all places associated with them. Include Customers who do not have any places recorded.

```
SELECT
    Customers.CustomerName,
    Places.PlaceName
FROM
    Customers
LEFT JOIN Places
    ON Customers.CustomerID = Places.CustomerID.
```

Ques 5 → list all articles along with the customers who ordered them. Include articles that have never been ordered.

```
SELECT
    Articles.ArticleName,
    Customers.CustomerName
```

```
FROM
    Articles
LEFT JOIN Orders
    ON Articles.Article ID = Orders.Article ID
LEFT JOIN Customers
    ON Orders.Customer ID = Customer.Customer ID;
```

Ques4 → Show all customers and all places associated with them. Include customers who do not have any places recorded.

```
SELECT
    Customers.Customer Name,
    Places.Place Name
FROM
    Customers
LEFT JOIN Places
    ON Customers.Customer ID = Places.Customer ID;
```

Ques5 → list all articles along with the customers who ordered them. Include articles that have never been ordereded.

```
SELECT
    Articles.Article Name,
    Customers.Customer Name
FROM
    Articles
LEFT JOIN Orders
    ON Articles.Article ID = Orders.Article ID
```

```
LEFT JOIN Customers
    ON Orders.CustomerID = Customers.CustomerID.
```

Ques6 → Display a list of all Customers and all orders. Include Customers without orders and orders without a matching Customer.

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

FROM
    Customers

FULL JOIN Orders
    ON Customers.CustomerID = Orders.CustomerID;
```

Ques7 → Generate a report of all possible customer–article combinations (without considering orders).

```
SELECT
    Customers.CustomerName,
    Articles.ArticleName

FROM
    Customers

CROSS JOIN Articles;
```

Ques8 → Suppose you want to find Customers whose Pricing is higher than some other customer. List pairs of such Customers.

```
SELECT
    C1.CustomerName AS Customer_HigherPrice,
    C2.CustomerName AS Customer_LowerPrice
FROM
    Customers C1, Customers C2
WHERE
    C1.Price > C2.Price;
```

Ques9 → Find the total quantity of each article ordered by customers.

```
SELECT
    Articles.ArticleName,
    SUM(Orders.Quantity) AS TotalQuantity
FROM
    Orders
INNER JOIN Articles
    ON Orders.ArticleID = Articles.ArticleID
GROUP BY
    Articles.ArticleName;
```

Ques10 → Find the total amount spent by each Customer. (Use Quantity * Article.Price)

```
SELECT
    Customers.CustomerName,
    SUM(Orders.Quantity * Articles.Price) AS Total
                                        AmountSpent

FROM
    Orders
INNER JOIN Customers
    ON Orders.CustomerID = Customer.CustomerID
INNER JOIN Articles
    ON Orders.ArticleID = Articles.ArticleID
GROUP BY
    Customers.CustomerName;
```