

Q1. What is join? explain the concept of left outer join with help of example.

→ - When data from more than one table in database is required, a join condition is used.

- Rows in one table can be joined to rows in another table according to common values existing in corresponding columns.

- There are different types of joins -

1. Inner join    2. Left outer join

3. Right outer join    4. Full outer join.

- Left outer join :-

- This join returns all rows of table on left side of the join & matching rows for table on right side of join.

- The rows for which there is no matching row on right side, the result-set will contain null.

- Left join is also known as left outer join.

Syntax -

```
select column-name(s) from table1 left join  
table2 on table1.column-name = table2.column-name
```

Ex -

```
select student.Name, studentCourse.Course_ID  
from student LEFT JOIN studentCourse on  
studentCourse.Roll-no = student.Roll-no;
```

Q2. Difference bet<sup>n</sup> Union set operator & join.

→

Join

Union

1. Join combines data from many tables based on a matched condition between them.

2. It combines data into new columns.

3. No. of columns selected from each table may not be same.

4. Datatypes of corresponding columns selected from each table can be different.

5. It may not return distinct columns.

1. SQL combines the result set of two or more select statements.

2. It combines data into new rows.

3. No. of columns selected from each table should be same.

4. Datatypes of corresponding columns selected from each table should be same.

5. It returns distinct rows.

Q3. Explain full outer join with help of example.

- 
- The full outer join returns a result set that includes rows from both left & right tables.
  - When no matching rows exist for row in left table, the columns of right table will have nulls.



- similarly when no matching rows exist for row in right table, the column of left table will have nulls.

Syntax -

```
select column-name(s) from table1  
full outer join table2 on table1.column-name =  
table2.column-name;
```

Ex - select customers.customerName, orders.orderID  
from customers full outer join orders on customers.  
customerID = orders.customerID;