

## ❖ 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
  - 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

### ▪ 1. (INNER) JOIN

- The INNER JOIN keyword selects records that have matching values in both tables
- Example :

```
SELECT pets.people_id, people.name
FROM pets
INNER JOIN people ON pets.people_id = people.id;
```

### ▪ 2. LEFT (OUTER) JOIN

- The LEFT JOIN keyword returns all records from the left table (table1), and the matched records from the right table (table2). The result is NULL from the right side, if there is no match.
- Example :

```
SELECT pets.pet_name, people.id
FROM pets
LEFT JOIN people ON pets.people_id = people.id
ORDER BY pets.pet_name;
```

### ▪ 3. RIGHT (OUTER) JOIN

- The RIGHT JOIN keyword returns all records from the right table (table2), and the matched records from the left table (table1). The result is NULL from the left side, when there is no match.
- Example :

```
SELECT Orders.OrderID, Employees.LastName, Employees.FirstName
FROM Orders
RIGHT JOIN Employees ON Orders.EmployeeID = Employees.EmployeeID
ORDER BY Orders.OrderID;
```

- **FULL (OUTER) JOIN**

- The FULL OUTER JOIN keyword returns all records when there is a match in left (table1) or right (table2) table records.

- Example :

```
SELECT Customers.CustomerName, Orders.OrderID
FROM Customers
FULL OUTER JOIN Orders ON Customers.CustomerID=Orders.CustomerID
ORDER BY Customers.CustomerName;
```

- ❖ **SELECT DISTINCT statement**

- The SELECT DISTINCT statement is used to return only distinct (different) values.
- Inside a table, a column often contains many duplicate values; and sometimes you only want to list the different (distinct) values.

- Example :

```
SELECT DISTINCT surname FROM users;
```

- ❖ **Like in SQL**

- The LIKE operator is used in a WHERE clause to search for a specified pattern in a column.
- There are two wildcards often used in conjunction with the LIKE operator:
  - % - The percent sign represents zero, one, or multiple characters
  - \_ - The underscore represents a single character

- Example :

```
SELECT * FROM users WHERE name like '%ani%';
```

- ❖ **mysqli\_real\_escape\_string()**

- The real\_escape\_string() / mysqli\_real\_escape\_string() function escapes special characters in a string for use in an SQL query, taking into account the current character set of the connection.

- It takes two arguments. First is connection and second is escapestring.
- Example :

```
<?php

//escape special characters if any
$username = mysqli_real_escape_string($_POST['username']);
$email = mysqli_real_escape_string($_POST['email']);
$surname = mysqli_real_escape_string($_POST['full_name']);

?>
```



*php*