: JOINS :

Why Joins ?

Joins are used to combine the data of two or more table which are related with each other.

- Usually user doesn't get desired information in one table so to get data, here the join scenario will come across.

Customers :

Customer ID	Name	City
01	Milee	Hyderabad
02	David	Bangalore
03	Steve	Delhi

Orders :

Order ID	Order Date	Cus. ID
1001	2021-09-20	1
1002	2020-04-10	1
1003	2019-12-30	9

* primary key Customer ID

* primary key Order ID

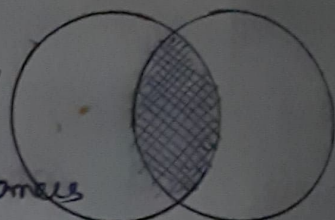Note: Primary key values must be alway unique

Different types of Joins:

- Inner Join
- Outer Join
- Left Join
- Right Join.
- Cross Join.

Inner Join : Inner join removes all the values which are not common in both tables, basically it is intersection of both tables and retrive the data based on Inner join condition.

Syntax:
SELECT customers.Customer ID, Name, City, Order ID, From Customers
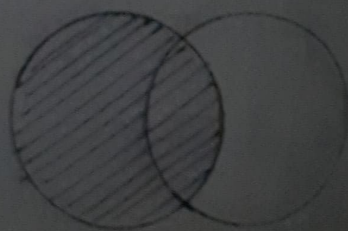INNER JOIN · Orders ON Orders.customers = Customers . Customer ID;

Customer ID	Name	City	Order ID	OrderDate
01	Mike	Hyderabad	1001	2021-9-20
01	Mike	Hyderabad	1002	2020-4-10

Left Join : In the left join all the rows are retrived irrespective of Right one if any right one matches the table, it is returned else null is appended in that rows.

Syntax:
SELECT Customers . Customer ID, Name, city, Order ID
From Customers.
LEFT JOIN Orders ON Orders. Order ID = Customers. customer ID;

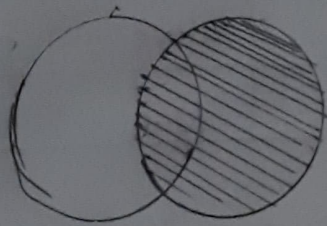| Customer ID	Name	City	Order ID	Order Date
00	Mike	Hyderabad	1002	2020-04-10
01	Mike	Hyderabad	1001	2021-09-20
02	David	Bangalore	Null	Null
03	Steve	Delhi	Null	Null

Right Join: In the Right join all the rows in the right table are retrived irrespective of left, if any matches found in left, then the left table data is retrived else null is appended in that rows.

syntax:

SELECT Orders. Customers ID, Name, city, Order ID, Order Date

FROM customers

RIGHT JOIN Orders ON orders. Customers ID = customers.

customers ID;

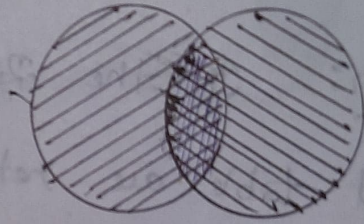| Customer ID	Name	City	Order ID	Order Date
01	Mike	Hyderabad	1001	2021-09-20
01	Mike	Hyderabad	1002	2020-04-10
09	Null	Null	1003	2019-12-30

Outer join : Outer joins usually retrieve the data from both tables along with associated Null values in the respective of left and Right tables.
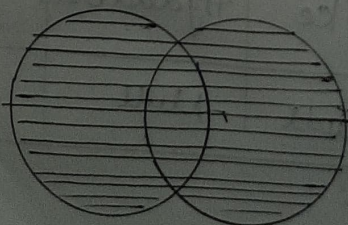
Syntax:

Left join sytax

union

Right join syntax;

Customer ID	Name	City	OrderID	Order Date
01	Mike	Hyderabad	1002	2020-04-10
01	Mike	Hyderabad	1001	2021-09-20
02	David	Bangalore	Null	Null
03	Steve	Delhi	Null	Null
09	Null	Null	1003	2019-12-30

Cross join : Cross join retrives the data from both the tables where every row consists values without null values.

Customer ID	Name	City	Order ID	Order Date
01	Mike	Hyderabad	1001	2021-09-20
01	Mike	Hyderabad	1002	2020-04-10