

Inner Join Outer Join

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Why ?

Join tables as per need

EmpDetails Table:

EmployeeID	EmployeeName
1	John
2	Samantha
3	Hakuna
4	Silky
5	Ram
6	Arpit
7	Lily
8	Sita
9	Farah
10	Jerry

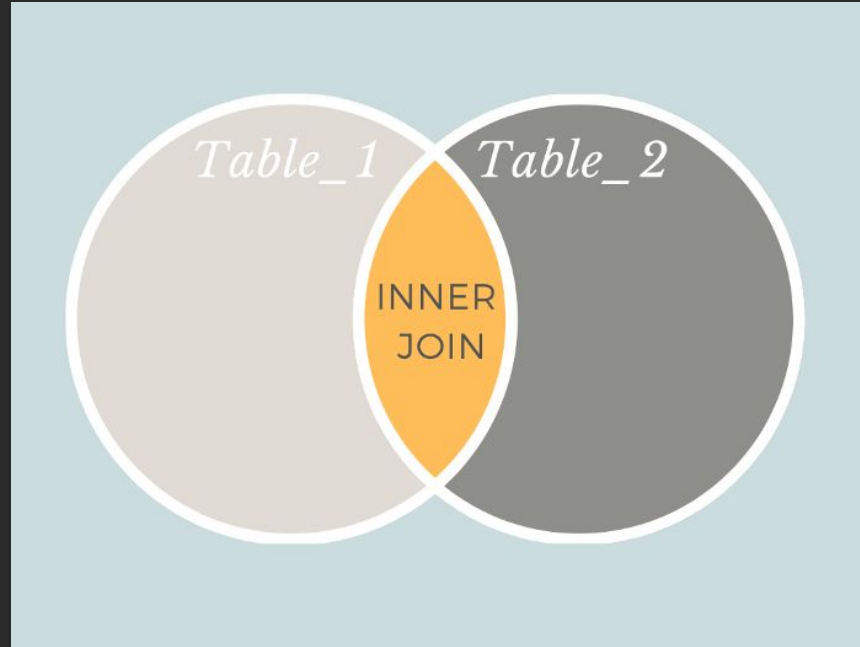


EmpSalary Table:

EmployeeID	EmployeeName	EmployeeSalary
1	John	50000
2	Samantha	120000
3	Hakuna	75000
4	Silky	25000
5	Ram	150000
6	Arpit	80000
11	Rose	90000
12	Sakshi	45000
13	Jack	250000

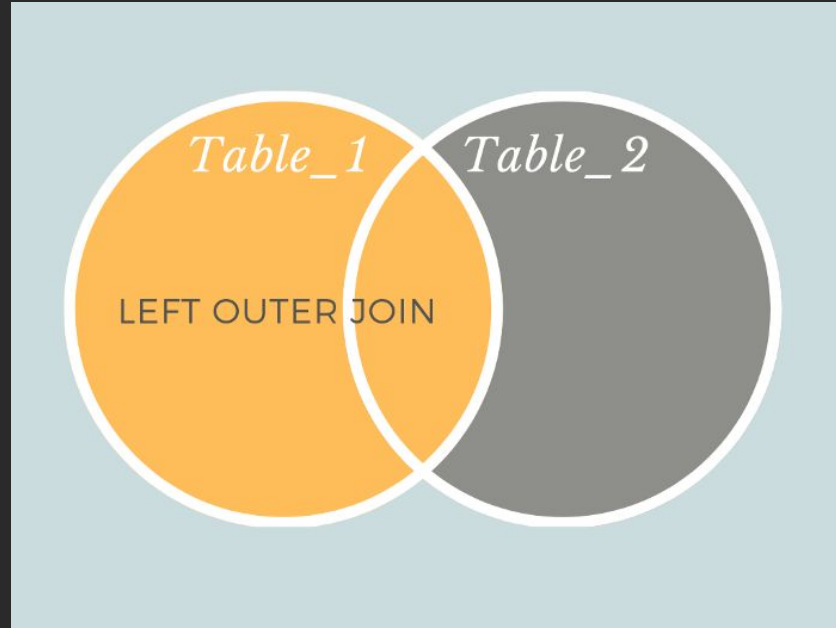
How ?

Inner Join



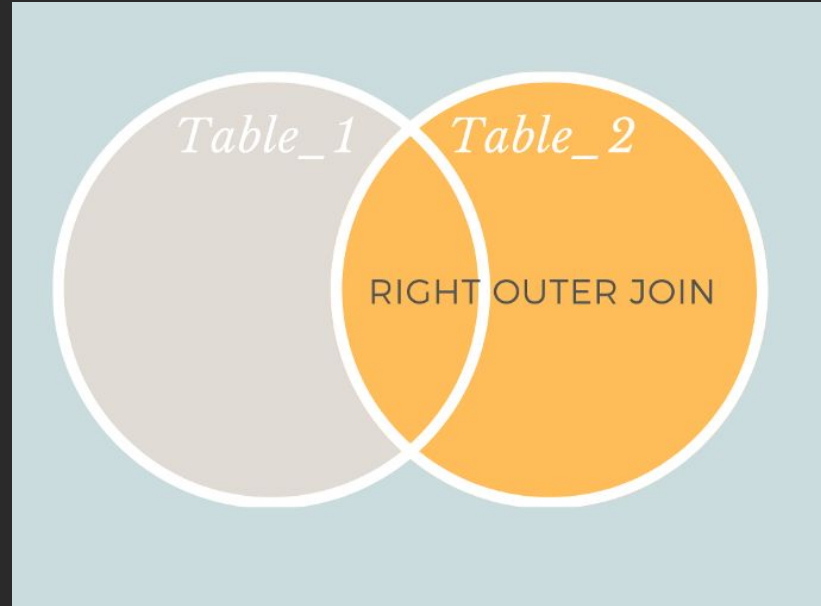
How ?

Left Outer Join



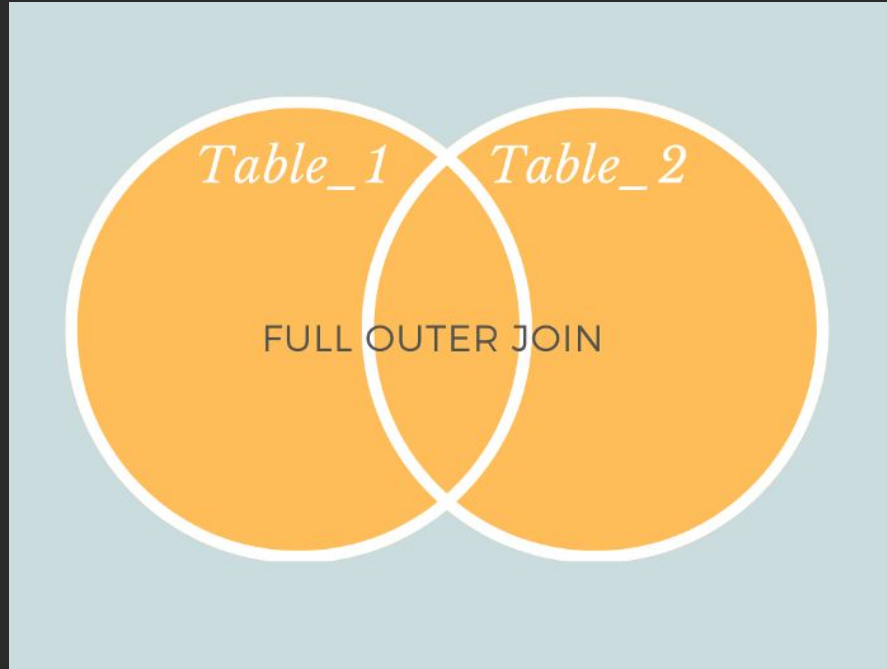
How ?

Right Outer Join



How ?

Full Outer Join



Inner Join

Result

EmployeeID	EmployeeName	EmployeeSalary
1	John	50000
2	Samantha	120000
3	Hakuna	75000
4	Silky	25000
5	Ram	150000
6	Arpit	80000

Inner Join

Query

```
SELECT EmpDetails. EmployeeID, EmpDetails. EmployeeName, EmpSalary. EmployeeSalary  
FROM EmpDetails INNER JOIN EmpSalary  
ON EmpDetails. EmployeeID = EmpSalary. EmployeeID;
```


Left Outer Join

Result

EmployeeID	EmployeeName	EmployeeSalary
1	John	50000
2	Samantha	120000
3	Hakuna	75000
4	Silky	25000
5	Ram	150000
6	Arpit	80000
7	Lily	NULL
8	Sita	NULL
9	Farah	NULL
10	Jerry	NULL

Left Outer Join

Query

```
SELECT EmpDetails. EmployeeID, EmpDetails. EmployeeName, EmpSalary. EmployeeSalary  
FROM EmpDetails LEFT JOIN EmpSalary  
ON EmpDetails. EmployeeID = EmpSalary. EmployeeID;
```

Right Outer Join

Result

EmployeeID	EmployeeName	EmployeeSalary
1	John	50000
2	Samantha	120000
3	Hakuna	75000
4	Silky	25000
5	Ram	150000
6	Arpit	80000
NULL	NULL	90000
NULL	NULL	250000
NULL	NULL	250000

Right Outer Join

Query

```
SELECT EmpDetails. EmployeeID, EmpDetails. EmployeeName, EmpSalary. EmployeeSalary  
FROM EmpDetails RIGHT join EmpSalary  
ON EmpDetails. EmployeeID = EmpSalary. EmployeeID;
```

Full Outer Join

Result

EmployeeID	EmployeeName	EmployeeID	EmployeeName	EmployeeSalary
1	John	1	John	50000
2	Samantha	2	Samantha	120000
3	Hakuna	3	Hakuna	75000
4	Silky	4	Silky	25000
5	Ram	5	Ram	150000
6	Arpit	6	Arpit	80000
7	Lily	NULL	NULL	NULL
8	Sita	NULL	NULL	NULL
9	Farah	NULL	NULL	NULL
10	Jerry	NULL	NULL	NULL
NULL	NULL	11	Rose	90000
NULL	NULL	12	Sakshi	250000
NULL	NULL	13	Jack	250000

Full Outer Join

Query

```
SELECT *  
FROM EmpDetails FULL JOIN EmpSalary  
ON EmpDetails. EmployeeID = EmpSalary. EmployeeID;
```

Performance

Outer join is slower than an Inner join.

Why?

As per the definition, an outer join, be it the left or right, it has to perform all the work of an inner join along with the additional work null- extending the results. An outer join is expected to return a greater number of records which further increases its total execution time just because of the larger result set.

Reference

- <https://www.softwaretestinghelp.com/inner-join-vs-outer-join/>
- <https://stackoverflow.com/questions/38549/what-is-the-difference-between-inner-join-and-outer-join>
- <https://towardsdatascience.com/what-is-the-difference-between-an-inner-and-an-outer-join-in-sql-5b5ec8277377>

Thank You

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In case you need it :