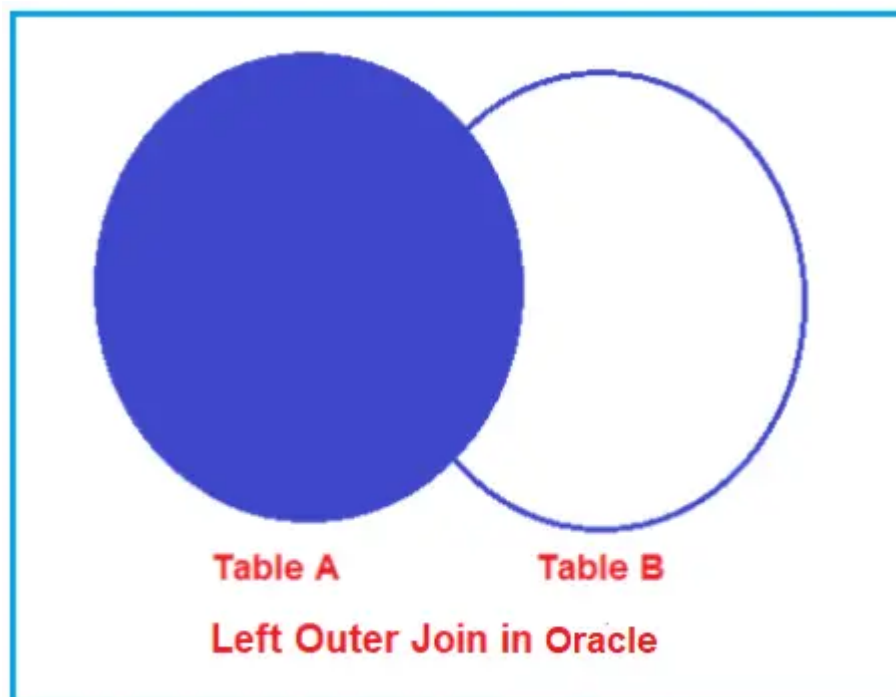# Left Outer Join in Oracle

What is Left Outer Join in Oracle?

The Left Outer Join in Oracle is used to retrieve all the matching records from both the tables as well as non-matching records from the left side table. In that case, the non-matching data will take a null value. The **LEFT OUTER JOIN** or **LEFT JOIN** keyword is used to perform the left join in Oracle.

How to implement Left Outer Join in Oracle?

The following images show how to use Left Outer Join in Oracle.

 we can use either the LEFT OUTER JOIN or the LEFT JOIN keyword to perform the Left Join operation in Oracle. That means if you use the LEFT JOIN keyword, then also it is going to perform
 Left Outer JOIN Operation.

When do we need to use Left JOIN in Oracle?

If you want to retrieve all the matching rows from both the tables involved in the join as well as all the non-matching rows from the left side table in the result set then you need to use Left Join in Oracle. In that case, the non-matching rows will take a null value.

Understand LEFT OUTER JOIN:

To understand Left Outer Join, we are going to use the following Employee, Address, and Projects tables. Here, EmployeeId is the common column that is available in all the tables and based on this column we are going to perform the Left Outer Join Operations.

Retrieve the EmployeeId, FullName, Department, Gender, ProjectName from the Employee and Projects tables.

```
SELECT Employee.EmployeeID, FullName, Department, Gender, ProjectName
FROM Employee
LEFT OUTER JOIN Projects
ON Employee.EmployeeID = Projects.EmployeeId;
```

OR

```
SELECT Employee.EmployeeID, FullName, Department, Gender, ProjectName
FROM Employee
LEFT JOIN Projects
ON Employee.EmployeeID = Projects.EmployeeId;
```

Left Outer Join with Where Condition:

requirement is to retrieve all the EmployeeId, FullName, Department, Gender, ProjectName from the Employee and Projects tables by using the Left Outer Join where the gender is Male.

```
SELECT Employee.EmployeeID, FullName, Department, Gender, ProjectName
FROM Employee
LEFT OUTER JOIN Projects
ON Employee.EmployeeID = Projects.EmployeeId
WHERE Employee.Gender = 'Male';
```

How to retrieve only the non-matching rows from the left table?

requirement is, we want to retrieve only those two employees for which there are non-matching records exist in the Projects table.

```
SELECT Employee.EmployeeID, FullName, Department, Gender, ProjectName
FROM Employee
LEFT JOIN Projects
ON Employee.EmployeeID = Projects.EmployeeId
WHERE Projects.EmployeeId IS NULL;
```

Joining three Tables using Left Outer Join:

requirement is to fetch the details of all employees along with the project name and address if they have.

```
SELECT Employee.EmployeeID, FullName, Department, Gender, ProjectName, Country, State, City
FROM Employee
LEFT OUTER JOIN Projects ON Employee.EmployeeID = Projects.EmployeeId
LEFT JOIN Address ON Employee.EmployeeID = Address.EmployeeId;
```