## **ACTIVITY-6**

## **How to use DISTINCT**

In SQL is used to remove the duplicate values in the result I. e. It return only unique values of a column in this article we will briefly discuss how to use DISTINCT statement in SQL,

While workingon large dataset ,yoo will get multiple repeted ent DISTINCT rise ,i.e., duplicate values, and when you run a query,it will increase time complexity

## **What is SQL DISTINCT Statement?**

**SQL DISTINCT statement is used to remove the duplicate values from the dataset, i.e., DISTINCT returns only unique values (rows).**

* **Used with SELECT statement in conjunction**
* **Can be used with aggregate functions: COUNT, AVREGE, MINI, MAX, etc**
* **DISTINCT in SQL operates only on a single column**
* **SQL DISTINCT doesn’t ignore NULL values**
* **i.e., the result will include NULL as a distinct value**

**Note**

* When there is only one column, DISTINCT will return unique values of that column
* When there is more than one column, DISTINCT will return a unique combination for the selected column

Now, let’s take some examples of distinct queries in SQL.

Let us have an employee dataset that has EmployeeID, FirstName, LastName, Gender, Education, Country, Department, and Salary of Employees.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Employee ID** | **FirstName** |  | **LastName** | **Gender** | **Education** | **Country** | **Department** | **CTC(in Lacs)** |
| 1001 | Ajay |  | Singh | M | Doctoral | USA | Tech | 25 |
| 1002 | Babloo |  | Gupta | M | PG | India | Management | 10 |
| 1003 | Chhavi |  | Tiwari | F | UG | China | Sales | NULL |
| 1004 | Dheeraj |  | Singh | M | UG | Australia | Marketing | 12 |
| 1005 | Evina |  | Johnson | F | PG | India | Management | NULL |
| 1006 | Fredy |  | Carl | M | UG | USA | Tech | 23 |
| 1007 | Garima |  | Singh | F | Intermediate | Finland | Admin | 8 |
| 1008 | Hans |  | Sewak | M | UG | China | Sales | 10 |
| 1009 | Ivanka |  | Trump | F | Intermediate | Finland | Admin | NULL |
| 1010 | Jai |  | Tiwari | M |  |  |  |  |

## **DISTINCT query in SQL**

### **Single Column**

**Example 1: Determine the unique Last Name from the above employee dataset.**

**Query**

**Output**

|  |
| --- |
| **Last Name** |
| Singh |
| Gupta |
| Tiwari |
| Johnson |
| Carl |
| Sewak |
| Trump |

### **Multiple Column**

**Example 2: From the employee table, find the unique country, and department combination.**

**Querya**

**Output**

|  |  |
| --- | --- |
| **Department** | **Country** |
| Tech | USA |
| Management | India |
| Sales | China |
| Marketing | Australia |
| Admin | Finland |

## **DISTINCT with WHERE**

**Example 4: From the employee table find the education detail of all the employee who are working in the admin department.**

**Output**

|  |
| --- |
| **Education** |
| Intermediate |
| High School |

## **DISTINCT with ORDER BY**

**Example 5: Arrange the CTC (unique record) of the employees of employee dataset in descending order.**

## **DISTINCT with ORDER BY**

**Example 5: Arrange the CTC (unique record) of the employees of employee dataset in descending order.**

**Output**

|  |
| --- |
| **CTC** |
| 25 |
| 23 |
| 12 |
| 10 |
| 8 |
| NULL |

## **COUNT with DISTINCT**

COUNT is an aggregation function that returns the number of different values in a column, but when it combines with DISTINCT, it returns only unique (non-null) values.

Example 6: Count the number of the distinct (non-null) CTC of employees in employee dataset.

## **Conclusion**

In this article, we have briefly discussed how to use DISTINCT statement in SQL with the help of examples.

Hope this article, will help you in your data science/data analysis journey.