SQL - NULL Values

The SQL **NULL** is the term used to represent a missing value. A NULL value in a table is a value in a field that appears to be blank.

A field with a NULL value is a field with no value. It is very important to understand that a NULL value is different than a zero value or a field that contains spaces.

Syntax

The basic syntax of **NULL** while creating a table.

```
SQL> CREATE TABLE CUSTOMERS(
   ID   INT              NOT NULL,
   NAME VARCHAR (20)     NOT NULL,
   AGE  INT              NOT NULL,
   ADDRESS  CHAR (25) ,
   SALARY   DECIMAL (18, 2),
   PRIMARY KEY (ID)
);
```

Here, **NOT NULL** signifies that column should always accept an explicit value of the given data type. There are two columns where we did not use NOT NULL, which means these columns could be NULL.

A field with a NULL value is the one that has been left blank during the record creation.

Example

The NULL value can cause problems when selecting data. However, because when comparing an unknown value to any other value, the result is always unknown and not included in the results. You must use the **IS NULL** or **IS NOT NULL** operators to check for a NULL value.

Consider the following CUSTOMERS table having the records as shown below.

```
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
|  1 | Ramesh   |  32 | Ahmedabad |  2000.00 |
|  2 | Khilan   |  25 | Delhi     |  1500.00 |
|  3 | kaushik  |  23 | Kota      |  2000.00 |
|  4 | Chaitali |  25 | Mumbai    |  6500.00 |
|  5 | Hardik   |  27 | Bhopal    |  8500.00 |
```

```
| 6 | Komal    | 22 | MP        |          |
| 7 | Muffy    | 24 | Indore    |          |
+----+----------+-----+-----------+----------+
```

Now, following is the usage of the **IS NOT NULL**operator.

```
SQL> SELECT  ID, NAME, AGE, ADDRESS, SALARY
   FROM CUSTOMERS
   WHERE SALARY IS NOT NULL;
```

This would produce the following result −

```
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
| 1  | Ramesh   | 32  | Ahmedabad |  2000.00 |
| 2  | Khilan   | 25  | Delhi     |  1500.00 |
| 3  | kaushik  | 23  | Kota      |  2000.00 |
| 4  | Chaitali | 25  | Mumbai    |  6500.00 |
| 5  | Hardik   | 27  | Bhopal    |  8500.00 |
+----+----------+-----+-----------+----------+
```

Now, following is the usage of the **IS NULL** operator.

```
SQL> SELECT  ID, NAME, AGE, ADDRESS, SALARY
   FROM CUSTOMERS
   WHERE SALARY IS NULL;
```

This would produce the following result −

```
+----+----------+-----+-----------+----------+
| ID | NAME     | AGE | ADDRESS   | SALARY   |
+----+----------+-----+-----------+----------+
| 6  | Komal    | 22  | MP        |          |
| 7  | Muffy    | 24  | Indore    |          |
+----+----------+-----+-----------+----------+
```