Date Functions in Oracle

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SYSDATE Function in Oracle:

The SYSDATE function in Oracle is used to return the current date and time set for the operating system on which the database resides. The data type of the returned value is DATE, and the format returned depends on the value of the NLS_DATE_FORMAT initialization parameter. The function requires no arguments. In distributed SQL statements, this function returns the date and time set for the operating system of your local database. You cannot use this function in the condition of a CHECK constraint.

```
SELECT SYSDATE FROM DUAL;
SELECT SYSDATE+10 FROM DUAL;
SELECT SYSDATE-10 FROM DUAL;
SELECT TO_CHAR(SYSDATE, 'MM-DD-YYYY HH:MI:SS') "NOW" FROM DUAL;
```

ADD_MONTHS() Function in Oracle:

The ADD_MONTHS date function in Oracle is used to return the date with a given number of months added (date plus integer months). The following is the syntax to use the ADD_MONTHS date function in Oracle.

```
SELECT ADD_MONTHS(SYSDATE, 2) FROM DUAL;
SELECT ADD_MONTHS(SYSDATE,-2) FROM DUAL;
```

LAST_DAY() Function in Oracle:

The LAST_DAY() date function in Oracle is used to return the last day of the month that contains a date. The return type is always going to be DATE type regardless of the data type of date.

```
SELECT LAST_DAY(SYSDATE) FROM DUAL;
```

```
SELECT SYSDATE, LAST_DAY(SYSDATE) "Last", LAST_DAY(SYSDATE) - SYSDATE "Days Left" FROM DUAL;
```

NEXT_DAY() Date Function in Oracle:

The NEXT_DAY date function in Oracle is used to return the date of the first weekday that is later than the date.

```
SELECT NEXT_DAY(SYSDATE,'MONDAY') FROM DUAL;
```

```
SELECT NEXT_DAY(SYSDATE,'FRIDAY') FROM DUAL;
```

MONTHS_BETWEEN() Function in Oracle:

The MONTHS_BETWEEN() date function in oracle is used to get the number of months between two dates (date1, date2). While working with the MONTHS_BETWEEN() date function in oracle, we need to keep in mind the following conditions:

1. If date1 is later than date2, then the result is positive.
2. If date1 is earlier than date2, then the result is negative.
3. If date1 and date2 are either the same days of the month or both last days of months, then the result is always an integer.
4. Otherwise, Oracle Database calculates the fractional portion of the result based on a 31-day month and considers the difference in time components date1 and date2.

```
SELECT MONTHS_BETWEEN('05-JAN-81','05-JAN-80') FROM DUAL;
```

```
SELECT MONTHS_BETWEEN('05-JAN-80','05-JAN-81') FROM DUAL;
```

CURRENT_DATE() Function in Oracle:

The CURRENT_DATE date function in Oracle is used to return the current date in the session time zone, in a value in the Gregorian calendar of datatype DATE. This function does not take any parameter.

```
ALTER SESSION SET NLS_DATE_FORMAT = ‘DD-MON-YYYY HH24:MI:SS’;
SELECT CURRENT_DATE, SESSIONTIMEZONE FROM DUAL;
ALTER SESSION SET TIME_ZONE = ‘-2:0’;
SELECT CURRENT_DATE, SESSIONTIMEZONE FROM DUAL;
```