Date and Time Function

CURDATE():
This function in Mysql is used to return the current date.
The date is returned to the format of "YYYY-MM-DD" (string) or as
YYYYMMDD (numeric).
This function equals the CURRENT_DATE() function.

Syntax:
CURDATE()

1. Write a query to display the current date

```
SELECT CURDATE();
```

Output:

CURDATE()
2022-04-21

NOW():

The NOW() function returns the current date and time.

Syntax:
NOW()

    1. Write a query to display the current date and time

```
SELECT NOW();
```

Output:

NOW()
2022-04-21 17:11:44

DAYNAME() Function:

This function in Mysql is used to return the weekday name for a specified date.

Syntax:
DAYNAME(date)

    1. Display the week day of today's date

```
SELECT DAYNAME('2021-04-21');
```

      Or

```
SELECT DAYNAME(NOW());
```

Output:

DAYNAME('2021-04-21)
Wednesday

MONTH() Function:

The MONTH() function returns the month part for a specified date (a number from 1 to 12).

Syntax:
MONTH(date)

1. Write a query to display the current month

```
SELECT MONTH(NOW());
```

Output:

MONTH(NOW())
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YEAR() Function:

The YEAR() function returns an integer value which represents the year of the specified date.

Syntax:
YEAR(input_date)

1. Write a query to display the working experience of an employee in terms of years

```
SELECT
  first_name, 2022 - YEAR(hire_date) as exp
FROM
  employee;
```

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Output:

first_name	exp
kelly	1
Tom	2
mike	1
andy	1
anjel	3
ram	4
rohan	1
john	1

2. Write a query to display the details of employee who have at least 2year experience

```sql
SELECT
    first_name, 2022 - YEAR(hire_date) as exp
FROM
    employee
WHERE
    2022 - YEAR(hire_date) >= 2;
```

Output:

first_name	exp

Tom	2
anjel	3
ram	4

DAY() Function:
The DAY() function returns the day of the month (from 1 to 31) for a specified date.

Syntax:
DAY(date)

3. Write a query to extract day from hired date

```sql
SELECT
  DAY(hire_date)
FROM
  employee;
```

Output:

DAY(hire_date)
22
22
30
27
26
26

9
9

The same can be achieved using **EXTRACT() Function**

EXTRACT() Function:
This function in MySQL is used to extract a part from a specified date.

Syntax:
EXTRACT(part FROM date)

Parameter :
This method accepts two parameters which are illustrated below:
part – Specified part to extract like SECOND, MINUTE, HOUR, DAY, WEEK, MONTH, YEAR, etc
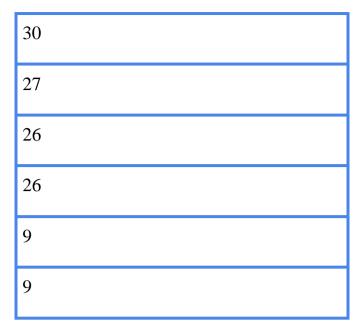**Date** – Specified date to extract a part from

1. Write a query to extract day from hired date

```sql
SELECT
  EXTRACT(DAY FROM hire_date)
FROM
  employee;
```

Output:

EXTRACT(DAY FROM hire_date)
22
22

6

30
27
26
26
9
9

2. Write a query to extract Year from hired date

```sql
SELECT
  EXTRACT(YEAR FROM hire_date)
FROM
  employee;
```

Output:

EXTRACT(YEAR FROM hire_date)
2021
2020
2021
2021
2019
2018

2021
2021

3. Write a query to extract year, month, day using EXTRACT()

```
SELECT
EXTRACT(YEAR FROM hire_date) as YEAR,
EXTRACT(MONTH FROM hire_date) as MONTH,
EXTRACT(DAY FROM hire_date) as DAY
FROM
employee;
```

Output:

YEAR	MONTH	DAY
2021	1	22
2020	9	22
2021	6	30
2021	2	27
2019	9	26
2018	12	26
2021	2	9

2021	2	9

LAST_DAY() Function:

The LAST_DAY() function extracts the last day of the month for a given date.

Syntax:
LAST_DAY(date)

    1. Write a query to display the last day of the current month

```sql
SELECT LAST_DAY(NOW()) ;
```

Output:

LAST_DAY(NOW())
2022-04-30

Here you are getting 30 as the output it is because in the april month we have 30days and that is the last day

DATEDIFF() Function:

The DATEDIFF() function compares two dates and returns the difference. The DATEDIFF() function is specifically used to measure the difference between two dates in years, months, weeks, and so on.

Syntax:

DATEDIFF(date_part,start_date_value1, end_date_value2);

    1. Write a query to display the number of days between 14th february 2020 to 15th august 2020

```
SELECT DATEDIFF("2020-08-15" , "2020-02-14") as DF;
```

Output:

DF
183

As you can see there is 183 days difference between 14th february to 15th august

2. Write a query to display the number of days employee has worked for the company

```
SELECT
  DATEDIFF(NOW(), hire_date) as DD
FROM
  employee;
```

Output:

DD
456
578
297
420

940
1214
438
438

DATE_ADD() Function:

The DATE_ADD() function adds a time/date interval to a date and then returns the date.

Syntax:

DATE_ADD(date, INTERVAL value unit)

Parameters:

date: It is used to specify the date to which the interval should be added.

value: It is used to specify the value of the time/date interval to be added.

unit: It is used to specify the unit type of the interval such as DAY, MONTH, MINUTE, etc.

1. Write a query to display the date 2020-12-31 by adding 1 day to it

```
SELECT
DATE_ADD('2020-12-31', INTERVAL 1  DAY) as DA;
```

Output:

DA

> 2021-01-01

As you can see from the above output the desired date interval has been added to the start value of the date. we have given last day of 2020 for that when you add 1 day to that we have got 1st january 2021

2. Now let's see by adding year interval to the existing date

```
SELECT
DATE_ADD('2020-12-31', INTERVAL 2  YEAR) as DA;
```

Output:

DA
2022-12-31

When two years added to the existing date '2020-12-31' then you will get '2022-12-31'

3. Adding 10 seconds to the existing time

```
SELECT
DATE_ADD('2020-12-31 10:00:00', INTERVAL 10  SECOND) as
DA;
```

Output:

DA
2020-12-31 10:00:10

The output has come as 10 AM 10 seconds, of 31th december 2020.

4. Add 1 minute and 1 second to 2020-12-31 10:00:00

```
SELECT
DATE_ADD('2020-12-31 10:00:00', INTERVAL '1:1'
MINUTE_SECOND)
as DA;
```

Output:

DA
2020-12-31 10:01:01

5. Add -1 day and 5 hours to 2020-12-31 10:00:00

```
SELECT
DATE_ADD('2020-12-31 10:00:00', INTERVAL '-1 5'
DAY_HOUR)
as DA;
```

Output:

DA
2020-12-30 05:00:00

6. Write a query to display the date by removing 2018-12-31 by removing 1 day from it

```
SELECT
DATE_SUB('2018-12-31', INTERVAL 1  DAY) as DA;
```

Output:

DA
2018-12-30