



MySQL Date Functions

Getting the current Date & Time

1. CURDATE()

The CURDATE() function returns the current date as a value in the 'YYYY-MM-DD' format.

```
SELECT CURDATE();
```

CURDATE()
2025-12-15

2. CURRENT_DATE() & CURRENT_DATE

The CURRENT_DATE() & CURRENT_DATE function both are same as CURDATE() function.

```
SELECT CURRENT_DATE() & CURRENT_DATE;
```

CURRENT_DATE()	CURRENT_DATE
2025-12-15	2025-12-15

3. CURRENT_TIME()

The CURRENT_TIME function return current time.

```
SELECT CURRENT_TIME;
```

CURRENT_TIME()
13:06:54



4. CURRENT_TIMESTAMP() & NOW()

Both the function return current date & time.

SELECT CURRENT_TIMESTAMP() & NOW();

CURRENT_TIMESTAMP()	NOW()
2025-12-15 13:06:54	2025-12-15 13:06:54

5. SYSDATE()

This function return the time at which it executes.

SELECT SYSDATE();

SYSDATE()
2025-12-15 13:06:54

Extracting Date and Time

1. DATE() : Extract the date component from a date.

SELECT DATE('2025-12-15 13:06:54') AS cur_date;

cur_date
2025-12-15

2. EXTRACT() : Extract a component of a date.

SELECT EXTRACT(DATE FROM '2025-12-15 13:06:54') AS cur_date;

cur_date
2025-12-15



3. **YEAR()** : Return the year component of a date.

```
SELECT YEAR( '2025-12-15 13:06:54') AS cur_year;
```

cur_year
2025

4. **QUARTER()** : Return the quarter of the year for a date.

```
SELECT QUARTER( '2025-12-15 13:06:54') AS cur_quarter;
```

cur_quarter
4

5. **DAYOFYEAR()** : Return the day no. of the year for a date.

```
SELECT DAYOFYEAR( '2025-12-15 13:06:54') AS day_no.;
```

day_no.
349

6. **MONTH()** : Return the month component of a date.

```
SELECT MONTH( '2025-12-15 13:06:54') AS cur_month;
```

cur_month
12



7. DAY() : Return the day of the month form date.

```
SELECT DAY('2025-12-15 13:06:54') AS cur_day;
```

cur_day
15

8. HOUR() : Return the hour for a time.

```
SELECT HOUR('2025-12-15 13:06:54') AS cur_hour;
```

cur_hour
13

9. MINUTE() : Return the minute for a time.

```
SELECT MINUTE('2025-12-15 13:06:54') AS cur_minute;
```

cur_minute
06

10. SECOND() : Return the second for a time.

```
SELECT SECOND('2025-12-15 13:06:54') AS cur_second;
```

cur_second
54



11. DAYNAME() : Return the name of the day from date.

```
SELECT DAYNAME( '2025-12-15') AS day_name;
```

day_name
Monday

12. MONTHNAME() : Return the name of the month from date.

```
SELECT MONTHNAME( '2025-12-15') AS moth_name;
```

month_name
December

Creating Date & Time Functions

1. MAKEDATE() : Create a date based on a given year and the number of days.

```
SELECT MAKEDATE(2025,70) AS date;
```

date
2025-03-11

2. MAKETIME() : Create a time based on hour, minute, and second.

```
SELECT MAKETIME( 14,45,06) AS make_time;
```

make_time
14:45:06



Calculating Date & Time Functions



1. **ADDTIME()** : Add a time interval to a time value or datetime value.

```
SELECT ADDTIME('00:30:00', '00:15:00') AS time;
```

time
00:45:00

2. **ADDDATE()** : Add a time value to a date.

```
SELECT ADDDATE('1999-12-31 23:59:59', INTERVAL 1 SECOND) result;
```

result
2000-01-01 00:00:00

3. **DATEDIFF()** : Return the difference in days of two date values.

```
SELECT DATEDIFF('2025-12-15', '2025-10-18') AS days;
```

days
58

4. **TIMEDIFF()** : Return the difference of two time values.

```
SELECT TIMEDIFF('12:00:00','10:00:00') diff;
```

diff
02:00:00



Converting String to Date Functions

1. **STR_TO_DATE()**: Convert a string to date & time.

```
SELECT STR_TO_DATE('15,12,2025','%d,%m,%Y') AS date;
```

date
2025-12-15

```
SELECT STR_TO_DATE('113220','%h%i%s') AS time;
```

time
11:32:20

Formatting Date & Time functions

1. **TIME_FORMAT()**: Return a string representation of a time based on a format.

```
SELECT TIME_FORMAT('15:30:45', '%h:%i %p') as formated_time;
```

formatef_time
03:30 PM

Time format specifiers

- %H: Hour (00-23)
- %h: Hour (01-12)
- %i: Minutes (00-59)
- %s: Seconds (00-59)
- %p: AM or PM



2. DATE_FORMAT() : Return a string representation of a date based on a format.

```
SELECT DATE_FORMAT('2025-12-15', '%W %d-%M-%Y') AS form_date;
```

form_date
Monday 15-December-2025

Invalid date return NULL.

```
SELECT DATE_SUB('2017-02-29', INTERVAL - 1 DAY);
```

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