Date functions in mysql

1. To get the current date and time, you use NOW() function. This will print date and time both

Mysql >SELECT NOW();

2. To get only date part of a DATETIME value, you use the DATE() function. Removes time portion

SELECT DATE(NOW());

3. To get the current system date, you use CURDATE() function as follows:

SELECT CURDATE();

'22/11/1981'

4. to convert user given data in user format to mysql format to store into table

   Str_to_date(22/11/1982,'%d/%b/%y')   #####1982-11-22

5. To format a date value, you use DATE_FORMAT function. The following statement formats the date as mm/dd/yyyy using the date format pattern %m/%d/%Y :

SELECT DATE_FORMAT(CURDATE(), '%m/%d/%Y') today;

+------------+

| today |

+------------+

| 07/13/2015 |

+------------+

1 row in set (0.02 sec)

SELECT DATE_FORMAT(CURDATE(), '%M, %D %y') today; ----- y will show 2 digit year

Y --- will display 4 digit year

y----will display 2 digit year

M- month name in character

m-month in number

d- date in number

D- display th or st after date

b--- display months in 3 letter (jan, feb,....)

r ---- to print time in 12 hrs (hh:mm:ss AM/PM)

```
+--------------------+
| today              |
+--------------------+
| September, 21st 18 |
+--------------------+
```

1 row in set (0.00 sec)

6. To calculate the number of days between two date values, you use the DATEDIFF function as follows:

SELECT DATEDIFF('2015-11-04','2014-11-04') days;

```
+------+
| days |
+------+
|  365 |
+------+
```

3.956 ----- 4

2.956

1 row in set (0.02 sec)

7. To add a number of days, weeks, months, years, etc., to a date value, you use the DATE_ADD function:

Date_add(Date_add(DATE_ADD('2015-01-01', INTERVAL 2 YEAR), INTERVAL 6 MONTH),interval 4 day) SELECT

   '2015-01-01' start,

   DATE_ADD('2015-01-01', INTERVAL 1 DAY) 'one day later',

   DATE_ADD('2015-01-01', INTERVAL 1 WEEK) 'one week later',

   DATE_ADD('2015-01-01', INTERVAL 1 MONTH) 'one month later',

   DATE_ADD('2015-01-01', INTERVAL 1 YEAR) 'one year later';

Date_add(DATE_ADD('2015-01-01', INTERVAL 2 YEAR), INTERVAL 6 MONTH)

8. Similarly, you can subtract an interval from a date using the DATE_SUB function:

SELECT

   '2015-01-01' start,

   DATE_SUB('2015-01-01', INTERVAL 1 DAY) 'one day before',

   DATE_SUB('2015-01-01', INTERVAL 1 WEEK) 'one week before',

   DATE_SUB('2015-01-01', INTERVAL 1 MONTH) 'one month before',

   DATE_SUB('2015-01-01', INTERVAL 1 YEAR) 'one year before';

9. If you want to get the day, month, quarter, and year of a date value, you can use the corresponding function DAY, MONTH, QUARTER, and YEAR as follows:

SELECT DAY('2000-12-31') day,

    MONTH('2000-12-31') month,

    QUARTER('2000-12-31') quarter,

    YEAR('2000-12-31') year;

```
+------+-------+---------+------+
| day  | month | quarter | year |
+------+-------+---------+------+
|  31  |  12   |    4    | 2000 |
+------+-------+---------+------+
```

1 row in set (0.00 sec)

10. To get the week information week related functions. For example, WEEK function returns the week number, WEEKDAY function returns the weekday index, and WEEKOFYEAR function returns the calendar week.

SELECT

  WEEKDAY('2000-12-31') weekday,

  WEEK('2000-12-31') week,

  WEEKOFYEAR('2000-12-31') weekofyear;

+---------+------+------------+

| weekday | week | weekofyear |

+---------+------+------------+

| 6 | 53 | 52 |

+---------+------+------------+

1 row in set (0.04 sec)

11. The week function returns the week number with the zero-based index if you don't pass the second argument or if you pass 0. If you pass 1, it will return week number with 1-indexed.

In weekday Monday-0,Tuesday-1,.....,Sunday-6

SELECT

  WEEKDAY('2000-12-31') weekday,

  WEEK('2000-12-31',1) week,

  WEEKOFYEAR('2000-12-31') weekofyear;

+---------+------+------------+

| weekday | week | weekofyear |

+---------+------+------------+

| 6 | 52 | 52 |

+---------+------+------------+

1 row in set (0.00 sec)

2nd argument in week function

https://www.mysqltutorial.org/mysql-week/

Mode	First day of week	Range	Week 1 is the first week …
0	Sunday	0-53	with a Sunday in this year
1	Monday	0-53	with more than 3 days this year
2	Sunday	1-53	with a Sunday in this year
3	Monday	1-53	with more than 3 days this year
4	Sunday	0-53	with more than 3 days this year
5	Monday	0-53	with a Monday in this year
6	Sunday	1-53	with more than 3 days this year
7	Monday	1-53	with a Monday in this year

```
select extract(day from curdate());

select extract(month from curdate()); ------------- to retrieve month

select extract(year from curdate());  -------------to retrieve year
```

+----------------------------+

```
| extract(day from curdate()) |

+----------------------------+

|                       21 |

+----------------------------+


-------- to display month in characters

select monthname(curdate());

+----------------------+

| monthname(curdate()) |

+----------------------+

| September          |

+----------------------+

1 row in set (0.00 sec)


mysql> select dayname(curdate());

+--------------------+

| dayname(curdate()) |

+--------------------+

| Friday           |

+--------------------+

1 row in set (0.00 sec)

last_day(curdate()) --- to find date for last day of current month
```