MySQL Date & Time Formats – With Queries and Examples

1. DAY Formats with Query & Example

Format Codes:

%W – Full weekday name (e.g., Monday)

%a – Short weekday name (e.g., Mon)

%w – Day number (0=Sunday)

%d – Day of month (01–31)

%e – Day of month (1–31)

%D – Day with suffix (e.g., 7th)

Example Query:

SELECT

  DOB,

  DATE_FORMAT(DOB, '%W') AS Full_Day,

  DATE_FORMAT(DOB, '%a') AS Short_Day,

  DATE_FORMAT(DOB, '%d') AS Day_2Digit,

  DATE_FORMAT(DOB, '%D') AS Day_With_Suffix

FROM Sales;

2. MONTH Formats with Query & Example

Format Codes:

%M – Full month name (December)

%b – Short month name (Dec)

%m – Month number (12)

Example Query:

```
SELECT
    DOB,
    DATE_FORMAT(DOB, '%M') AS Full_Month,
    DATE_FORMAT(DOB, '%b') AS Short_Month,
    DATE_FORMAT(DOB, '%m') AS Month_Number
FROM Sales;
```

3. YEAR Formats with Query & Example

Format Codes:

%Y – 4-digit year (1990)

%y – 2-digit year (90)

Example Query:

```
SELECT
    DOB,
    DATE_FORMAT(DOB, '%Y') AS Year4,
    DATE_FORMAT(DOB, '%y') AS Year2
FROM Sales;
```

4. TIME Formats with Query & Example

Format Codes:

%H – Hour (24-hour)

%h – Hour (12-hour)

%i – Minutes

%s – Seconds

%p – AM/PM

Example Query:

```
SELECT
    LoginTime,
    DATE_FORMAT(LoginTime, '%H:%i:%s') AS Time24,
    DATE_FORMAT(LoginTime, '%h:%i:%s %p') AS
Time12
```

FROM EmployeeLog;

Practical Example – December Birthdays

Display Salesmen born in December with day name:

SELECT SalesName,

DATE_FORMAT(DOB, '%W') AS DayName,

DOB

FROM Sales

WHERE MONTH(DOB) = 12;

LAB PROGRAM

4. Create Sales table with the following fields(Sales No, Sales name, Branch, Sales amount, DOB)

    a. Insert five records

    a. Calculate total Sales amount in each branch

    a. Calculate average Sales amount in each branch

    a. Display all the salesmen, DOB who are born in the month of December as day in character format.

Creating the table

create table sales(sales_no int primary key,sales_name varchar(50),branch varchar(50),sales_amount decimal(10,2),dob date);

```
mysql> describe sales;
+--------------+---------------+------+-----+---------+-------+
| Field        | Type          | Null | Key | Default | Extra |
+--------------+---------------+------+-----+---------+-------+
| sales_no     | int           | NO   | PRI | NULL    |       |
| sales_name   | varchar(50)   | YES  |     | NULL    |       |
| branch       | varchar(50)   | YES  |     | NULL    |       |
| sales_amount | decimal(10,2) | YES  |     | NULL    |       |
| dob          | date          | YES  |     | NULL    |       |
+--------------+---------------+------+-----+---------+-------+
5 rows in set (0.00 sec)
```

a. Inserting tuples

insert into sales values (1,'alice','New York',5000.00,'1990-12-15');

insert into sales values (2,'Bob','Las Vegas',3000.00,'1985-12-15');

insert into sales values (3,'Charlie','Chicago',7000.00,'1995-11-17');

insert into sales values (4,'David','New York',6000.00,'1995-03-17');

insert into sales values (5,'Tia','LA',4000.00,'2002-03-17');

```
mysql> select * from sales;
+----------+------------+-----------+--------------+------------+
| sales_no | sales_name | branch    | sales_amount | dob        |
+----------+------------+-----------+--------------+------------+
|        1 | alice      | New York  |      5000.00 | 1990-12-15 |
|        2 | Bob        | Las Vegas |      3000.00 | 1985-12-15 |
|        3 | Charlie    | Chicago   |      7000.00 | 1995-11-17 |
|        4 | David      | New York  |      6000.00 | 1995-03-17 |
|        5 | Tia        | LA        |      4000.00 | 2002-03-17 |
+----------+------------+-----------+--------------+------------+
5 rows in set (0.00 sec)
```

b. select branch,sum(sales_amount) as total_sales_amount from sales group by branch;

```
mysql> select branch,sum(sales_amount) as total_sales_amount from sales group by bran
+-----------+--------------------+
| branch    | total_sales_amount |
+-----------+--------------------+
| New York  |           11000.00 |
| Las Vegas |            3000.00 |
| Chicago   |            7000.00 |
| LA        |            4000.00 |
+-----------+--------------------+
4 rows in set (0.01 sec)
```

c. select branch,avg(sales_amount) as average_sales_amount from sales group by branch;

```
ysql> select branch,avg(sales_amount) as average_sales_amount from sales group by branch;
+-----------+----------------------+
| branch    | average_sales_amount |
+-----------+----------------------+
| New York  |          5500.000000 |
| Las Vegas |          3000.000000 |
| Chicago   |          7000.000000 |
| LA        |          4000.000000 |
+-----------+----------------------+
rows in set (0.01 sec)
```

d. select sales_name, date_format(dob, '%w %d %m %y') as Birth_Day from sales where month(dob) = 12;

```
+--------------+--------------------------------+
| Sales_Name   | Birth_Day                      |
+--------------+--------------------------------+
| John Doe     | Saturday 15th December 1990    |
| Mike Johnson | Tuesday 22nd December 1992     |
| Robert Brown | Friday 5th December 1995       |
+--------------+--------------------------------+
```