

Session 1

18/07/2024

1. Write SQL queries in MySQL for the following.

- a. Write an SQL Query to find the year from date.

Query: select year(curdate()) as Year;

Output: 2024

- b. Check whether date passed to Query is the date of a given format or not.

Query: select IF(STR_TO_DATE('2024-07-18', '%Y-%m-%d') is not NULL, 'Valid', 'Invalid') AS DateValidation;

Output: Valid

- c. Find the size of the SCHEMA/USER.

Query: select table_schema "Database Name"
SUM(data_length + index_length) / 1024 / 1024 "Database Size in MB"
from information_schema.tables
group by table_schema;

Output:

| Database Name | Database Size in MB |
|--------------------|---------------------|
| mysql | 2.62500000 |
| information_schema | 0.00000000 |
| performance_schema | 0.00000000 |
| sys | 0.01562500 |
| menagerie | 0.03125000 |

- d. Display the current time.

Query: select curtime() as Current_time;

Output: 14:30:00

- e. Given a date, retrieve the next day's date.

Query: select date_add(curdate(),interval 1 day) as Tomorrow;

Output: 2024-07-19

- f. Get database's date.

Query: select table_schema as DatabaseName,
table_name as FirstTableName,
create_time as CreationDate from
information_schema.tables
where table_schema = 'menagerie'
order by create_time;

Output:

| DatabaseName | FirstTableName | CreationDate |
|--------------|----------------|---------------------|
| menagerie | pet | 2024-07-21 18:18:26 |
| menagerie | event | 2024-07-24 19:29:23 |

- g. Return the default(current) database name.

Query: select database() AS CurrentDatabase;

Output: menagerie

- h. Retrieve the current MySQL user name and host name.

Query: select user();

Output: root@localhost

- i. Find the string that tells the MySQL server version.

Query: select version() as Version;

Output: 8.1.0

- j. Perform Bitwise OR, Bitwise XOR and Bitwise AND.

Query: select 5 | 3 AS BitwiseOR, 5 ^ 3 AS BitwiseXOR, 5 & 3 AS
BitwiseAND;

Output: 7 6 1

- k. Find the difference between two dates and print in terms of the number of days.

Query: select datediff('2024-07-25', '2024-07-18') AS DateDifference;

Output: 7

- l. Add one day to the current date.

Query: select date_add(curdate(),interval 1 day) as Tomorrow;

Output: 2024-07-19

- m. Add two hours and 5000 minutes to the current date and print the new date.

Query: select date_add(date_add(now(), interval 2 hour),interval 5000 minute) AS New_Date;

Output: 2024-07-29 02:41:17

- n. Find the floor and ceil values of a floating point number. Also operate on the power, log, modulus, round off and truncate functions.

Query: select floor(15.75) AS FloorValue, ceil(15.75) AS CeilValue, power(2, 3) AS PowerValue, log(10) AS LogValue, mod(15, 4) AS ModulusValue, round(15.756, 2) AS RoundedValue, truncate(15.756, 2) AS TruncatedValue;

Output: 15 | 16 | 8 | 2.302585092994046 | 3 | 15.76 | 15.75

- o. Compare two strings and print the value 'yes' if they are equal, else print 'no'.

Query: select IF('Hello' = 'hello', 'yes', 'no') AS StringComparison;

Output: yes

- p. Simulate the "IF... ELSE" construct in MySQL for a mark and grade setup.

Query: select student_id, marks,
CASE
WHEN marks >= 90 THEN 'S'
WHEN marks >= 80 THEN 'A'
WHEN marks >= 70 THEN 'B'
WHEN marks >= 60 THEN 'D'
ELSE 'F'
END AS Grade FROM students;

Output:

| student_id | marks | Grade |
|------------|-------|-------|
| 1 | 95 | A |
| 2 | 82 | B |
| 3 | 74 | C |

- q. Use IFNULL to check whether a mathematical expression gives a NULL value or not.

Query: select IFNULL(NULL, 'Expression is NULL') AS NullCheck;

Output: Expression is NULL