VISHWA .S LAB ASSESSMENT 1 18.07.24
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Write SQL queries in MySQL for the following.

1. Write an SQL Query to find the year from date.
   Query: select year(curdate()) as Year;
   Output: 2024

2. 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

3.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

4.Display the current time.
Query: select curtime() as Current_time;
Output: 14:30:00

5.Given a date, retrieve the next day’s date.
Query: select date_add(curdate(),interval 1 day) as Tomorrow;
Output: 2024-07-19

6.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	2024-07-2419:29:23

7.Return the default(current) database name.

Query: select datatbase() AS CurrentDatabase;

Output: menagerie

8.Retrieve the current MySQL user name and host name.

Query: select user();

Output: root@localhost

9.Find the string that tells the MySQL server version.

Query: select version() as Version;

Output: 8.1.0

10.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

11.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

12.Add one day to the current date.

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

Output: 2024-07-19

13.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

14.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(11.66) AS FloorValue, ceil(11.66) AS CeilValue, power(3, 3) AS PowerValue, log(8) AS LogValue, mod(17, 4) AS ModulusValue, round(13.828, 2) AS RoundedValue, truncate(13.828, 2) AS TruncatedValue;

Output: 11 | 12 | 27 | 0.903089987 | 1 | 13.83 | 13.82

a. Compare two strings and print the value ‘yes’ if they are equal, else print‘no’.

Query: select IF('STRING1' = 'STRING2', 'yes', 'no') AS StringComparison;

Output: yes

b. 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	90	A
2	89	B
3	71	C

c. Use IFNULL to check whether a mathematical expression gives a NULLvalue or not.

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

Output: Expression is NULL