CSLR 51

DBMS LAB - SESSION 1

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- 1. Write SQL queries in MySQL for the following.
- a. Write an SQL Query to find the year from date.

```
SELECT YEAR('2021-10-15');
Output:
+-----+
| YEAR('2021-10-15') |
```

| 2021 | +-----+

+----+

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

SELECT DATE('2021-15-15');

Output:

```
+-----+
| DATE('2021-15-15') |
+------+
| NULL |
```

c. Find the size of the SCHEMA/USER.

SELECT SUM(ROUND(((DATA_LENGTH + INDEX_LENGTH) / 1024 / 1024), 2)) AS "SIZE IN MB" FROM INFORMATION_SCHEMA.TABLES WHERE TABLE_SCHEMA = "sys";

```
+-----+
| SIZE_IN_MB |
+-----+
| 0.02 |
```

d. Display the current time
SELECT CURRENT_TIME;
Output:
++ CURRENT_TIME +

| 10:26:46 |

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

```
SELECT DATE_ADD('2021-10-15', interval 1 day);
```

Output:

f. Get database's date.

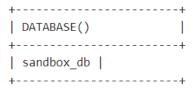
```
SELECT CURRENT_DATE;
```

Output:

```
+----+
| CURRENT_DATE |
+----+
| 2024-07-26 |
+-----
```

g. Returns the default(current) database name.

SELECT DATABASE();



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

SELECT user, host, authentication_string, plugin from mysql.user;

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

```
SELECT VERSION();

Output:

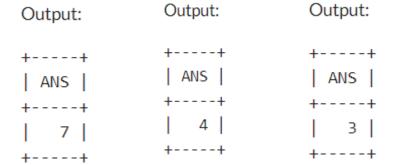
+----+

| VERSION() |
+----+
| 8.0.27 |
```

+----+

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

```
SELECT 5|6 as ANS;
SELECT 5&6 as ANS;
SELECT 5^6 as ANS;
```



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

SELECT DATEDIFF('2020-06-25', '2020-06-15');

Output:

l. Add one day to the current date.

SELECT DATE_ADD('2021-10-15', interval 1 day);

Output:

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

SELECT DATE_ADD(DATE_ADD(NOW(), INTERVAL 2 HOUR), INTERVAL 5000 MINUTE) AS new_date;



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

SELECT floor(2.8) as floor;

SELECT ceil(2.8) as ceil;

SELECT POWER(3,2) AS POW;

SELECT LOG(2.81) AS LOG_VAL;

SELECT MOD(10,5) AS MOD_VAL;

SELECT ROUND(5.4) AS round_off_value;

SELECT TRUNCATE(10.8461561, 2) AS truncate_value;

Output:	Output:	Output:	Output:
++ floor ++	++ ceil ++	POW	++ LOG_VAL
2	3		1.0331844833456545
Output:	Output:	Output:	
++ MOD_VAL ++	+ round_off_value +	trunc	+ cate_value +
0	5	'	10.84

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

SELECT IF('hello' = 'hello', 'yes', 'no') AS result;

```
+----+
| result |
+----+
yes
+----+
p. Simulate the "IF... ELSE" construct in MySQL for a mark and grade setup.
CREATE TABLE students (
 id INT AUTO_INCREMENT PRIMARY KEY,
 name VARCHAR(100),
 marks INT
);
INSERT INTO students (name, marks) VALUES
('Alice', 95),
('Bob', 85),
('Charlie', 75),
('David', 65),
('Eve', 55);
SELECT
 name,
 marks,
 IF(marks >= 90, 'A',
   IF(marks >= 80, 'B',
     IF(marks >= 70, 'C',
      IF(marks >= 60, 'D', 'F')
     )
 ) AS grade
FROM
```

students;

Output:

+	+	+	+
name	•	grade	•
+	+	+	+
Alice	95	A	
Bob	85	В	
Charlie	75	C	
David	65	D	
Eve	55	F	
+	+	+	+

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

SELECT IFNULL(1/NULL, 'Expression is NULL') AS result;

-----* * THANK YOU * * ------