

1. Write SQL queries in MySQL for the following.

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

```
SELECT YEAR('2024-05-17') as year;
```

```
+-----+
```

```
| year |
```

```
+-----+
```

```
| 2024 |
```

```
+-----+
```

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

```
SELECT STR_TO_DATE('2023-05-16', '%Y-%m-%d') as date;
```

```
+-----+
```

```
| date      |
```

```
+-----+
```

```
| 2023-05-16 |
```

```
+-----+
```

```
1 row in set (0.00 sec)
```

```
SELECT STR_TO_DATE('2023/05/16', '%Y-%m-%d') as date;
```

```
+-----+
```

```
| date      |
```

```
+-----+
```

```
| NULL      |
```

```
+-----+
```

c. Find the size of the SCHEMA/USER.

```
SELECT table_schema as "Database", ROUND(SUM(data_length +  
index_length)
```

```
/ 1024 / 1024, 2) AS "Size in MB" FROM information_schema.TABLES GROUP  
BY table_schema;
```

Database	Size in MB
mysql	2.64
information_schema	0.00
sys	0.02
labdb	0.19
excrise	0.06
trivedhi	0.05
procedures	0.03
cool	0.03
model	0.03
shopping_system	0.06
shyam	0.11
performance_schema	0.00
Ronith	0.02
book	0.09
BANK	0.09
EMP3	0.03
EMPLOYEE	0.03
ACC	0.03
EMPLOY	0.05
STUDENT	0.09
lab4	0.03
STUD	0.25
db1	0.03
mydbms	0.02
STU	0.03
dttb	0.05
lab6_dbms	0.03
lab9	0.06
a	0.08
Lab1	0.16

d. Display the current time.

```
SELECT CURDATE() as date;
```

date
2024-07-25

```
+-----+
```

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

```
SELECT DATE_ADD(CURDATE(), INTERVAL 1 DAY) as tom_date;
```

```
+-----+
```

```
| tom_date |
```

```
+-----+
```

```
| 2024-07-26 |
```

```
+-----+
```

f. Get database's date.

```
SELECT CURRENT_TIMESTAMP() as cur_time;
```

```
+-----+
```

```
| cur_time |
```

```
+-----+
```

```
| 2024-07-25 15:25:46 |
```

```
+-----+
```

g. Returns the default(current) database name.

```
SELECT DATABASE();
```

```
+-----+
```

```
| DATABASE() |
```

```
+-----+
```

```
| ab_008 |
```

```
+-----+
```

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

```
SELECT CURRENT_USER() as user;
```

```
+-----+
```

```
| user |
```

```
+-----+
```

```
| root@localhost |
```

```
+-----+
```

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

```
SELECT VERSION() as version;
```

```
+-----+
| version          |
+-----+
| 8.0.37-0ubuntu0.20.04.3 |
+-----+
```

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

```
SELECT (100 | 10) AS bit_or, (100 & 10) AS bit_and, (100 ^ 10) AS bit_xor;
```

```
+-----+-----+-----+
| bit_or | bit_and | bit_xor |
+-----+-----+-----+
| 110    | 0       | 110     |
+-----+-----+-----+
```

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

```
SELECT DATEDIFF('2007-02-20','2007-01-31') as 'diff(days)';
```

```
+-----+
| diff(days) |
+-----+
| 20         |
+-----+
```

- l. Add one day to the current date.

```
SELECT DATE_ADD(CURDATE(), INTERVAL 1 DAY) as plus_one;
```

```
+-----+
| plus_one   |
+-----+
| 2024-07-26 |
+-----+
```

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

```
SELECT DATE_ADD(DATE_ADD(CURRENT_TIMESTAMP(), INTERVAL 50
MINUTE), INTERVAL 2 HOUR) as '+02:50';
```

```
+-----+
| +02:50      |
+-----+
| 2024-07-25 18:58:07 |
+-----+
```

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(6.9) as lb, ceil(6.9) as ub, truncate(6.9999, 2) as digit, LOG(6.9) as
loggy, POW(5, 3) as powers, (234 % 54) as REM;
```

lb	ub	digit	loggy	powers	REM
6	7	6.99	1.9315214116032138	125	18

o. In the first name of the employee, match the following using regular expressions.

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

```
SELECT ("hello" = "bye");
```

0

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

```
mysql> SELECT 65 As marks,
```

```
-> CASE
```

```
-> WHEN 65 >= 90 THEN 'S'
```

```
-> WHEN 65 >= 80 THEN 'A'
```

```
-> WHEN 65 >= 70 THEN 'B'
```

```
-> WHEN 65 >= 60 THEN 'C'
```

```
-> ELSE 'F'
```

```
-> END as grade;
```

marks	grade
65	C

- r. Use IFNULL to check whether a mathematical expression gives a NULL value or not.
SELECT IFNULL(NULL, 7);

IFNULL(NULL, 7)
7