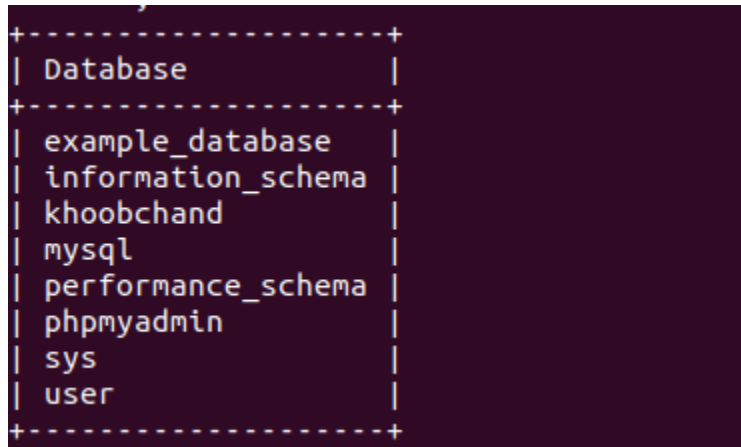


## Assignment -01(Crud Operation)

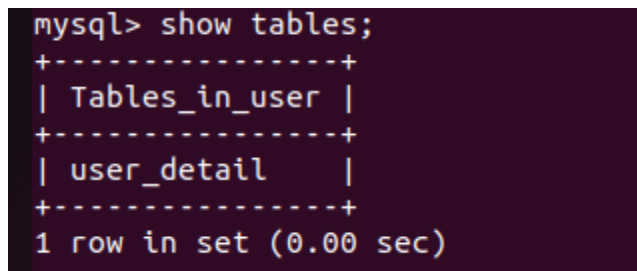
Step1:- Create database user

Step2:Show databases



Database
example_database
information_schema
khoobchand
mysql
performance_schema
phpmyadmin
sys
user

Step3:use user // “It will move to your desire database”



```
mysql> show tables;
```

Tables_in_user
user_detail

1 row in set (0.00 sec)

D) create table user\_detail(

First name,  
Last name,  
Username,  
Gender,  
Email,  
Nationality,  
Phone,  
Date of birth,  
Profile image,  
)

Describe user\_detail

```
mysql> describe user_detail;
```

Field	Type	Null	Key	Default	Extra
firstname	varchar(20)	YES		NULL	
lastname	varchar(20)	YES		NULL	
username	varchar(20)	YES		NULL	
gender	varchar(10)	YES		NULL	
email	varchar(20)	YES		NULL	
Nationality	varchar(10)	YES		NULL	
phone	int	YES		NULL	
image	longblob	YES		NULL	



Add Entries in the table using Insert command

```
mysql> insert into
user_detail(firstname,lastname,username,gender,email,Nationalit
y,phone,image) values("Andy","Rose","Andy
rose","female","Andy@gmail.com","uk",123456789,"http1.jpeg");
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into
user_detail(firstname,lastname,username,gender,email,Nationalit
y,phone,image) values("Ben","Anderson","Ben
Anderson","female","Benanderson@gmail.com","USA",12345678
9,"http2.jpeg");
ERROR 1406 (22001): Data too long for column 'email' at row 1
```

```
mysql> insert into
user_detail(firstname,lastname,username,gender,email,Nationalit
y,phone,image) values("Ben","Anderson","Ben
Anderson","female","Ben@gmail.com","USA",123456789,"http2.jp
eg");
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into
user_detail(firstname,lastname,username,gender,email,Nationalit
y,phone,image) values("jessie","willsie","jessie
willsie","female","jessie@gmail.com","USA",123456789,"http3.jp
eg");
Query OK, 1 row affected (0.01 sec)
```

```
mysql> insert into
```

```
user_detail(firstname,lastname,username,gender,email,Nationality,phone,image) values("john","doe","john doe","male","john@gmail.com","canada",91123456789,"http4.jpeg");
```

```
mysql> insert into
```

```
user_detail(firstname,lastname,username,gender,email,Nationality,phone,image) values("john","doe","john doe","male","john@gmail.com","canada",911456789,"http4.jpeg");  
Query OK, 1 row affected (0.01 sec)
```

```
mysql> select *from user_detail  
-> ;
```

firstname	lastname	username	gender	email	Nationality	phone	image
Andy	Rose	Andy rose	female	Andy@gmail.com	uk	123456789	0x68747470312E6A70656
Ben	Anderson	Ben Anderson	female	Ben@gmail.com	USA	123456789	0x68747470322E6A70656
jessie	willsie	jessie willsie	female	jessie@gmail.com	USA	123456789	0x68747470332E6A70656
john	doe	john doe	male	john@gmail.com	canada	911456789	0x68747470342E6A70656
kampara	tension	ben tense	male	bentension@gmail.com	India	91576789	0x68747470342E6A70656

```
5 rows in set (0.00 sec)
```

## Update command

```
mysql> update user_detail set firstname="Rohit",  
lastname="Sharma", username="Rohit sharma", gender="male",
```

email="rohit@gmail.com", Nationality="India", phone=7684865,  
image="http3.jpeg" where firstname="Ben" ;

```
mysql> select *from user_detail
-> ;
```

firstname	lastname	username	gender	email	Nationality	phone	image
Andy	Rose	Andy rose	female	Andy@gmail.com	uk	123456789	0x68747470312E6A706567
Rohit	Sharma	Rohit sharma	male	rohit@gmail.com	India	7684865	0x68747470332E6A706567
jessie	willsie	jessie willsie	female	jessie@gmail.com	USA	123456789	0x68747470332E6A706567
john	doe	john doe	male	john@gmail.com	canada	911456789	0x68747470342E6A706567
kampara	tension	ben tenseione	male	bentension@gmail.com	India	91576789	0x68747470342E6A706567

```
5 rows in set (0.00 sec)
```

Delete command

mysql> delete from user\_detail where firstname="jessie";

```
mysql> select *from user_detail
-> ;
```

firstname	lastname	username	gender	email	Nationality	phone	DOB	image
Andy	Rose	Andy rose	female	Andy@gmail.com	uk	123456789	NULL	0x68747470312E6A706567
Rohit	Sharma	Rohit sharma	male	rohit@gmail.com	India	7684865	NULL	0x68747470332E6A706567
john	doe	john doe	male	john@gmail.com	canada	911456789	NULL	0x68747470342E6A706567
kampara	tension	ben tenseione	male	bentension@gmail.com	India	91576789	NULL	0x68747470342E6A706567

```
4 rows in set (0.00 sec)
```

Assignment -02

A) From the following table, write a SQL query to find the unique nationality of the student. Return nationality.

mysql> select distinct Nationality from user\_detail

```
mysql> select distinct Nationality from user_detail
-> ;
+-----+
| Nationality |
+-----+
| Indian      |
| usa         |
+-----+
2 rows in set (0.01 sec)

-> ;
```

B) From the following table, write a SQL query to find those students whose age is below 30. Return complete information about the student.

QUERY:-mysql> select \*from user\_detail where  
(year(curdate())-year(DOB))<30;

## Assignment -03

### INNER JOIN:-

A.1) Show the detail of both the table using an inner join

```
Query:mysql> select user_detail.firstname  
,user_detail.lastname,user_detail.username,user_detail  
.gender,user_detail.email,user_detail.phone,user_detail  
.nationality,user_detail.image ,student_detail.Rollno,  
student_detail.maths ,student_detail.physics from  
user_detail inner join student_detail on  
user_detail.Id=student_detail.ID;
```

ALTERNATE method:-mysql> select user\_detail.\*,  
student\_detail.\* from user\_detail inner join  
student\_detail on user\_detail.Id=student\_detail.ID;

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| firstname | lastname | username | gender | email | phone | nationality | image | Rollno | maths | physics |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Rohit | Sharma | Rohit sharma | male | rohit@gmail.com | 7684865 | Indian | 0x68747470332E6A706567 | 674 | 76 | 87 |
| john | doe | john doe | male | john@gmail.com | 911456789 | usa | 0x68747470342E6A706567 | 684 | 72 | 80 |
| kampara | tension | ben tense | male | bentension@gmail.com | 91576789 | usa | 0x68747470342E6A706567 | 644 | 92 | 32 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
3 rows in set (0.00 sec)

mysql>
```

A.2)Show the detail of the table using an inner join.

Show the first name,  
last name, and roll no.

Query:-mysql> select user\_detail.firstname  
,user\_detail.lastname,student\_detail.Rollno from



user\_detail inner join student\_detail on  
user\_detail.Id=student\_detail.ID;

```
mysql> select user_detail.firstname ,user_detail.lastname,student_detail.Rollno from user_detail inner join student_detail on user_detail.Id=student_detail.ID;
+-----+-----+-----+
| firstname | lastname | Rollno |
+-----+-----+-----+
| Rohit     | Sharma   | 674    |
| john      | doe      | 684    |
| kampara   | tension  | 644    |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

LEFT JOIN:-

B)Write an SQL statement that will select all students, and any grade they might have. Show the first name, last name, and roll no.

QUERY:mysql> select

user\_detail.firstname,user\_detail.lastname,student\_detail.Rollno  
from user\_detail left join student\_detail on  
user\_detail.Id=student\_detail.ID;

```
|  firstname  |  lastname  |  Rollno  |
+-----+-----+-----+
| Rohit      | Sharma     | 674      |
| john       | doe        | 684      |
| kampara    | tension    | 644      |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

RIGHT JOIN:

C)Write an SQL statement that will select all grade values, belonging to any student. Show the first name, last name, and roll no.

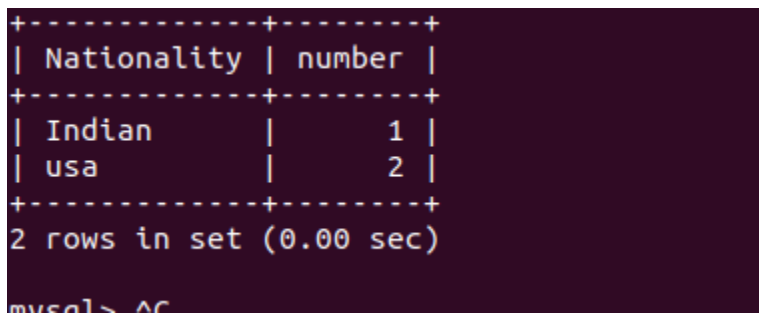
QUERY:user\_detail.firstname,user\_detail.lastname,student\_detail.Rollno from user\_detail right join student\_detail on user\_detail.Id=student\_detail.ID;

```
|  firstname  |  lastname  |  Rollno  |
+-----+-----+-----+
| Rohit      | Sharma     | 674      |
| john       | doe        | 684      |
| kampara    | tension    | 644      |
+-----+-----+-----+
3 rows in set (0.00 sec)
```

## Assignment -04

i)List the number of students in each country.

```
mysql> select user_detail. Nationality,count(*) as number from  
        user_detail group by Nationality ;
```



```
+-----+-----+  
| Nationality | number |  
+-----+-----+  
| Indian      |      1 |  
| usa         |      2 |  
+-----+-----+  
2 rows in set (0.00 sec)
```

The screenshot shows a MySQL terminal window with a dark background. The output of the query is displayed in a table format with two columns: 'Nationality' and 'number'. The first row shows 'Indian' with a count of 1, and the second row shows 'usa' with a count of 2. Below the table, it indicates '2 rows in set (0.00 sec)'. The prompt 'mysql>' is visible at the bottom left.

2 rows in set (0.00 sec)

ii)List the number of students in each country, ordered by the country with the most student first

```
QUERY:mysql> select user_detail. Nationality,count(*) as number  
        from user_detail group by  Nationality order by count(*) desc ;
```

```

+-----+-----+
| Nationality | number |
+-----+-----+
| usa        |      2 |
| Indian     |      1 |
+-----+-----+
2 rows in set (0.00 sec)

```

iii) When displaying the student's table, refer to the table as Users instead of students.

```

mysql> select *from student_detail as user_detail;
+-----+-----+-----+-----+-----+
| ID    | userid | Rollno | maths | physics |
+-----+-----+-----+-----+-----+
| 1     | 331    | 674    | 76    | 87    |
| 2     | 451    | 684    | 72    | 80    |
| 3     | 431    | 644    | 92    | 32    |
+-----+-----+-----+-----+-----+
3 rows in set (0.01 sec)

```

iv) Select all the records where the Country is either "UK" or "USA".

QUERY:-mysql> select \*from user\_detail where Nationality="usa" or "india";

```

ERROR 1064 (42000): You have an error in your SQL syntax; check the manual that corresponds to your MySQL server version for the right syntax to use near 'line 1' at line 1
mysql> select *from user_detail where Nationality="usa" or"india";
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Id | firstname | lastname | username | gender | email | Nationality | phone | DOB | image |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2 | john | doe | john doe | male | john@gmail.com | usa | 911456789 | 2022-09-10 | 0x68747470342E6A706567 |
| 3 | kampara | tension | ben tense | male | bentension@gmail.com | usa | 91576789 | 2022-09-10 | 0x68747470342E6A706567 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
2 rows in set, 1 warning (0.00 sec)

```

## Assignment-05

i) Select the record with the smallest Grade value in the Physics column.

QUERY:-mysql> select \*from student\_detail where physics=(select min(physics) from student\_detail);

```

+-----+-----+-----+-----+-----+
| ID | userid | Rollno | maths | physics |
+-----+-----+-----+-----+-----+
| 3 | 431 | 644 | 92 | 32 |
+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)

mysql> ^C
mysql>

```

ii) Select the record with the Greatest Grade value in the Physics column.

QUERY:-mysql> select \*from student\_detail where physics=(select max(physics) from student\_detail);

```
mysql> select *from student_detail where physics=(select max(physics) from student_detail);
+-----+-----+-----+-----+-----+
| ID   | userid | Rollno | maths | physics |
+-----+-----+-----+-----+-----+
| 1    | 331    | 674    | 76    | 87      |
+-----+-----+-----+-----+-----+
1 row in set (0.01 sec)

mysql>
```

iii)Calculate the average Grade value in Maths of all students.

QUERY:-mysql> select avg(maths) from student\_detail;

```
mysql> select avg(maths) from student_detail;
+-----+
| avg(maths) |
+-----+
| 80.0000    |
+-----+
1 row in set (0.00 sec)

mysql> ^C
mysql> █
```

iv)Return the number of records with the Maths grade value greater than 75.

QUERY:-mysql> select \*from student\_detail where maths>75;

```
mysql> select *from student_detail where maths>75;
+-----+-----+-----+-----+-----+
| ID    | userid | Rollno | maths | physics |
+-----+-----+-----+-----+-----+
| 1     | 331    | 674    | 76    | 87      |
| 3     | 431    | 644    | 92    | 32      |
+-----+-----+-----+-----+-----+
2 rows in set (0.01 sec)

mysql> 
```

## Assignment -06

A)Select all records where the second letter of the last name (lname) is an "o".

QUERY:-mysql> select \*from user\_detail where lastname like "\_o%"

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| Id   | firstname | lastname | username | gender | email           | Nationality | phone   | DOB       | image |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
| 2    | john      | doe      | john doe | male   | john@gmail.com | usa        | 911456789 | 2022-09-10 | 0x68747470342E6A706567 |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
1 row in set (0.00 sec)
```

B)Select all records where the first letter of the first name (fname) starts with anything from an "a" to an "f".

Query:-mysql> select \*from user\_detail where regexp\_like (firstname,'[a-b]');

```
mysql> select *from user_detail where regexp_like (firstname,'[a-b]');
```

Id	firstname	lastname	username	gender	email	Nationality	phone	DOB	image
3	kampara	tension	ben tense	male	bentension@gmail.com	usa	91576789	2022-09-10	0x68747470342E6A706567

1 row in set (0.00 sec)

C)Select all records where the Phone number column is empty.

QUERY:-mysql> select \*from user\_detail where phone is null;

Id	firstname	lastname	username	gender	email	Nationality	phone	DOB	image
2	john	doe	john doe	male	john@gmail.com	usa	NULL	2022-09-10	0x68747470342E6A706567

1 row in set (0.00 sec)

```
mysql>
```



D)Select all records and sort the result in ascending order by the column dob.

QUERY:-mysql> select \*from user\_detail order by DOB asc;

```
mysql> select *from user_detail order by DOB asc;
```

Id	firstname	lastname	username	gender	email	Nationality	phone	DOB	image
1	Rohit	Sharma	Rohit sharma	male	rohit@gmail.com	Indian	7684865	2001-09-10	0x68747470332E6A706567
2	john	doe	john doe	male	john@gmail.com	usa	911456789	2022-09-10	0x68747470342E6A706567
3	kampara	tension	ben tense	male	bentension@gmail.com	usa	91576789	2022-09-10	0x68747470342E6A706567

```
3 rows in set (0.00 sec)
```