

Name: - Shivangi

Roll no: - 21229CMP010.

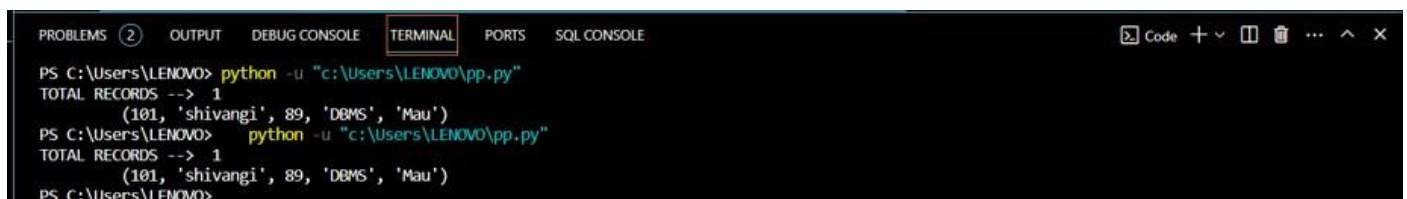
Q:-1 Connecting database by using a programming Script.

```
import mysql.connector as ms
import random

con=ms.connect(host="localhost",user="root",password="periodic",
charset='utf8',database="student")
cur=con.cursor()
cur.execute('select * from info where name="Shivangi"')

rec=cur.fetchall()
records=cur.rowcount
print('TOTAL RECORDS --> ',records)
for i in rec:
    print('\t',i)
# Close the connection
con.close()
```

Output: -



```
PROBLEMS 2 OUTPUT DEBUG CONSOLE TERMINAL PORTS SQL CONSOLE
PS C:\Users\LENOVO> python -u "c:\Users\LENOVO\pp.py"
TOTAL RECORDS --> 1
(101, 'shivangi', 89, 'DBMS', 'Mau')
PS C:\Users\LENOVO> python -u "c:\Users\LENOVO\pp.py"
TOTAL RECORDS --> 1
(101, 'shivangi', 89, 'DBMS', 'Mau')
PS C:\Users\LENOVO>
```

Q:-2 Select query which include Where, Group by, Having and Order by clause. Also includes 'like', 'between' and 'In' operator.

```
create database student;
```

```
use student;
```

```
create table info
```

```
(
```

```
id int primary key,
```

```
name varchar(49),
```

```
marks int,
```

```
subject varchar(20),
```

```
city varchar(20)
```

```
);
```

```
insert into info
```

```
(id , name , marks , subject, city)
```

```
values
```

```
(110, "shivangi", 89 ,"DBMS","Mau"),
```

```
(111, "Priyanka", 90, "DBMS", "Varanasi"),
```

```
(112, "Sapna", 79, "DBMS", "Varanasi"),
```

```
(113, "Sakshi", 72, "SAT", "Varanasi"),  
(114, "Varsha", 82, "DBMS", "RAMPUR");  
select city,avg(marks)  
from info  
where subject="DBMS"  
group by city  
having avg(marks)>80  
order by city;
```

```
select name,marks from info where marks between 80  
and 90;
```

```
select name from info where marks like '8%';
```

```
select distinct name from info where city  
in("mau","Rampur");
```

sql1*

```
12 (id , name , marks , subject, city)
13 values
14 (110, "shivangi", 90 , "DBMS", "Mau"),
15 (111, "Priyanka", 90, "DBMS", "Varanasi"),
16 (112, "Sapna", 79, "DBMS", "Varanasi"),
17 (113, "Sakshi", 72, "SAT", "Varanasi"),
18 (114, "Varsha", 82, "DBMS", "RAMPUR");
19 • select city,avg(marks)
20 from info
21 where subject="DBMS"
22 group by city
23 having avg(marks)>80
24 order by city;
25
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

city	avg(marks)
Mau	89.5000
RAMPUR	82.0000
Varanasi	88.1667

Result 2 x | Read Only

Output

Action Output

#	Time	Action	Message
1	10:55:33	select city,avg(marks) from info where subject="DBMS" group by city having avg(marks)>80	... 3 row(s) returned
2	11:03:21	select city,avg(marks) from info where subject="DBMS" group by city having avg(marks)>80	... 3 row(s) returned

‘Between’ operator

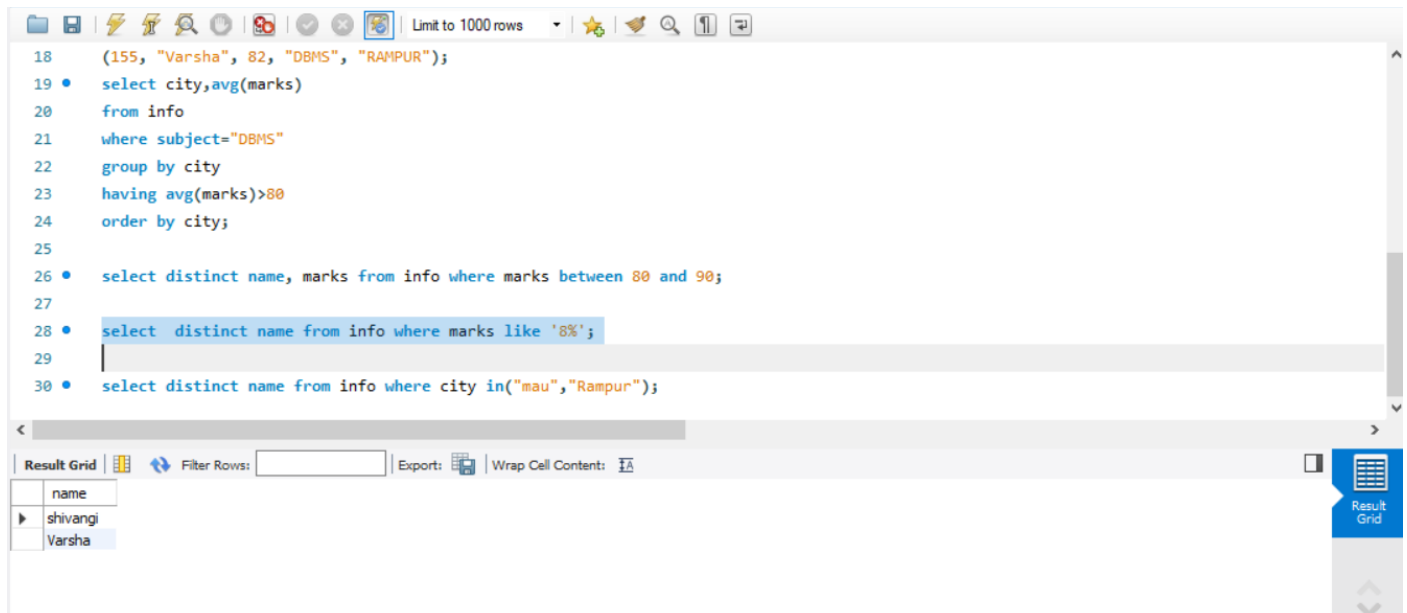
```
18 (155, "Varsha", 82, "DBMS", "RAMPUR");
19 • select city,avg(marks)
20 from info
21 where subject="DBMS"
22 group by city
23 having avg(marks)>80
24 order by city;
25
26 • select distinct name, marks from info where marks between 80 and 89;
27
28 • select distinct name from info where marks like '8%';
29
30 • select distinct name from info where city in("mau","Rampur");
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

name	marks
shivangi	89
Varsha	82

Result Grid

LIKE' operator



The screenshot shows a SQL IDE with a query editor and a result grid. The query editor contains the following SQL code:

```
18 (155, "Varsha", 82, "DBMS", "RAMPUR");
19 • select city,avg(marks)
20 from info
21 where subject="DBMS"
22 group by city
23 having avg(marks)>80
24 order by city;
25
26 • select distinct name, marks from info where marks between 80 and 90;
27
28 • select distinct name from info where marks like '6%';
29 |
30 • select distinct name from info where city in("mau","Rampur");
```

The result grid shows the following data:

name
shivangi
Varsha

'IN' operator



The screenshot shows a SQL IDE with a query editor and a result grid. The query editor contains the following SQL code:

```
18 (155, "Varsha", 82, "DBMS", "RAMPUR");
19 • select city,avg(marks)
20 from info
21 where subject="DBMS"
22 group by city
23 having avg(marks)>80
24 order by city;
25
26 • select distinct name, marks from info where marks between 80 and 89;
27
28 • select distinct name from info where marks like '8%';
29
30 • select distinct name from info where city in("mau","Rampur");
```

The result grid shows the following data:

name
shivangi
Varsha