

Important SQL Queries

1. Create new database named as MarvellousInfo.

Query :

Create Database MarvellousInfo;

Output :

```

marvellous — mysql • sudo — 64x22
MariaDB [(none)]> create database MarvellousInfo;
Query OK, 1 row affected (0.00 sec)

MariaDB [(none)]>

```

2. Create table named as student which contains following fields as Name, Address, Roll number, Marks, Age. Create that table in MarvellousInfo Database.

Query :

Create table Student

```

(
    RollNo int,
    Name varchar(255),
    Address varchar(255),
    Age int,
    Marks int
);

```

Output :

```

marvellous — mysql • sudo — 64x22
MariaDB [(none)]> use MarvellousInfo;
Database changed
MariaDB [MarvellousInfo]> create table Student(RollNo int, Name varchar(255), Address varchar(255), Age int, Marks int);
Query OK, 0 rows affected (0.02 sec)

MariaDB [MarvellousInfo]>

```

3. Display layout of Student table.

Query :

Describe Student;

Output :

```

marvellous — mysql • sudo — 64x22
MariaDB [MarvellousInfo]> Describe Student;
+-----+-----+-----+-----+-----+-----+
| Field | Type | Null | Key | Default | Extra |
+-----+-----+-----+-----+-----+-----+
| RollNo | int(11) | YES | | NULL | |
| Name | varchar(255) | YES | | NULL | |
| Address | varchar(255) | YES | | NULL | |
| Age | int(11) | YES | | NULL | |
| Marks | int(11) | YES | | NULL | |
+-----+-----+-----+-----+-----+-----+
5 rows in set (0.03 sec)

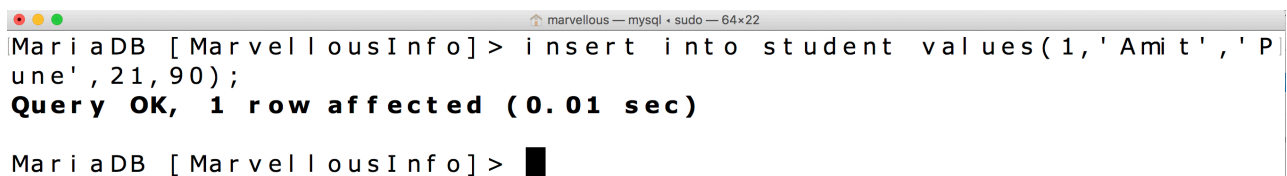
```

4. Insert new entry in table.

Query :

Insert into Student values (1, 'Amit', 'Pune', 21, 90);

Output :



```

marvellous — mysql • sudo — 64x22
MariaDB [MarvellousInfo] > insert into student values(1, 'Amit', 'Pune', 21, 90);
Query OK, 1 row affected (0.01 sec)

MariaDB [MarvellousInfo] >
  
```

5. Display all records from Student table.

Query :

Select * from Student;

Output :



RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
2	Sagar	Mumbai	23	89
3	Sumit	Nasik	23	78
4	Pooja	Nasik	21	89
5	Pooja	Nasik	21	89
6	Pranali	Nasik	24	80
7	Parag	Nagar	20	57
8	Poorva	Nagpur	27	67
9	Ramesh	Pune	20	78
10	Rahul	Pune	26	90
11	Bhavesh	Mumbai	20	98
12	Chetann	Nasik	26	56
13	Deven	Satara	24	90
14	Gaurav	Dhule	23	89
15	Hemant	Mumbai	20	98
16	Radhika	Mumbai	29	67
17	Riya	Sangli	26	50
18	Gautam	Satara	24	45
19	Yuvraj	Aurangabad	30	77
20	Pratik	Shirdi	21	91

6. Display all Students from Nasik.

Query :

Select * from Student where address = 'Nasik';

Output :

RollNo	Name	Address	Age	Marks
3	Sumit	Nasik	23	78
4	Pooja	Nasik	21	89
5	Pooja	Nasik	21	89
6	Pranali	Nasik	24	80
12	Chetann	Nasik	26	56

7. Display all Students from whose age is 21.

Query :

Select * from Student where age = 21;

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
4	Pooja	Nasik	21	89
5	Pooja	Nasik	21	89
20	Pratik	Shirdi	21	91

8. Display all Students from whose obtained Marks are 90.

Query :

Select * from Student where Marks = 90;

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
10	Rahul	Pune	26	90
13	Deven	Satara	24	90

9. Display only names of students who's lives in Mumbai.

Query :

Select Name from Student where Address = 'Mumbai';

Output :

Name

Sagar

Bhavesh

Hemant

Radhika

10. Display only names and Age of students whose Age is greater than 23.

Query :

Select Name, Age from Student where Age > 23;

Output :

Name	Age
Pranali	24
Poorva	27
Rahul	26
Chetann	26
Deven	24
Radhika	29
Riya	26
Gautam	24
Yuvraj	30

11. Display only names and Age of students whose Age is greater than 23 and Address is Pune.

Query :

Select Name, Age from Student where Age > 23 AND Address = 'Pune';

Output :

Name**Age**

Rahul

26

12. Update Address to 'Satara' of student whose Room number is 5 And name is Pooja.

Query :

Update Student Set Address = 'Satara' where RollNo = 5 And Name = 'Pooja';

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
2	Sagar	Mumbai	23	89
3	Sumit	Nasik	23	78
4	Pooja	Nasik	21	89
5	Pooja	Satara	21	89
6	Pranali	Nasik	24	80
7	Parag	Nagar	20	57
8	Poorva	Nagpur	27	67
9	Ramesh	Pune	20	78
10	Rahul	Pune	26	90
11	Bhavesh	Mumbai	20	98
12	Chetann	Nasik	26	56
13	Deven	Satara	24	90
14	Gaurav	Dhule	23	89
15	Hemant	Mumbai	20	98
16	Radhika	Mumbai	29	67
17	Riya	Sangli	26	50
18	Gautam	Satara	24	45
19	Yuvraj	Aurangabad	30	77
20	Pratik	Shirdi	21	91

13. Display contents of Student table order by there names.

Query :

Select * from Student Order by Name;

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
11	Bhavesh	Mumbai	20	98
12	Chetann	Nasik	26	56
13	Deven	Satara	24	90
14	Gaurav	Dhule	23	89
18	Gautam	Satara	24	45
15	Hemant	Mumbai	20	98
7	Parag	Nagar	20	57
5	Pooja	Satara	21	89
4	Pooja	Nasik	21	89
8	Poorva	Nagpur	27	67
6	Pranali	Nasik	24	80
20	Pratik	Shirdi	21	91
16	Radhika	Mumbai	29	67
10	Rahul	Pune	26	90
9	Ramesh	Pune	20	78
17	Riya	Sangli	26	50
2	Sagar	Mumbai	23	89
3	Sumit	Nasik	23	78
19	Yuvraj	Aurangabad	30	77

14. Display contents of Student table in Descending order by there Marks who lives in Pune.

Query :

Select * from Student Where Address = 'Pune' Order by Marks DESC;

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
10	Rahul	Pune	26	90
9	Ramesh	Pune	20	78

15. Display contents of Student table in Descending order by there Marks who lives in Pune and Age is Greater than 20.

Query :

Select * from Student Where Address = 'Pune' AND Age > 20 Order by Marks DESC;

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
10	Rahul	Pune	26	90

16. Display all information of Student whose name is 'Yuvraj'

Query :

Select * from Student Where Name = 'Yuvraj';

Output :

RollNo	Name	Address	Age	Marks
19	Yuvraj	Aurangabad	30	77

17. Display all names of student from Nasik whose age is greater than 20.

Query :

Select Name from Student Where Age > 20 AND Address = 'Nasik';

Output :

Name
Sumit
Pooja
Pranali
Chetann

18. Display names of Cities from Student table.

Query :

Select Distinct Address from Student;

Output :

Address
Pune
Mumbai
Nasik
Satara
Nagar
Nagpur
Dhule
Sangli
Aurangabad
Shirdi

19. Display First 5 records from table.

Query :

Select * From Student LIMIT 5;

Output :

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
2	Sagar	Mumbai	23	89
3	Sumit	Nasik	23	78

20. Display highest marks of student.

Query :

Select MAX(Marks) from Student;

Output :

MAX(Marks)
98

21. Display all information of students whose name starts with 'P'

Query :

Select * from Student where Name like 'P%';

Output :

RollNo	Name	Address	Age	Marks
4	Pooja	Nasik	21	89
5	Pooja	Satara	21	89
6	Pranali	Nasik	24	80
7	Parag	Nagar	20	57
8	Poorva	Nagpur	27	67
20	Pratik	Shirdi	21	91

22. Display number of students in each city.

Query :

Select Address, Count(Address) from Student Group by Address;

Output :

Address	COUNT(Address)
Aurangabad	1
Dhule	1
Mumbai	4
Nagar	1
Nagpur	1
Nasik	4
Pune	3
Sangli	1
Satara	3
Shirdi	1

23. Display Average marks of students from each city.

Query :

Select Address, AVG(Marks) from Student Group by Address;

Output :

Address	AVG(Marks)
Aurangabad	77.0000
Dhule	89.0000
Mumbai	88.0000
Nagar	57.0000
Nagpur	67.0000
Nasik	75.7500
Pune	86.0000
Sangli	50.0000
Satara	74.6667
Shirdi	91.0000

24. Display all names of students whose name starts with 'P' and marks are greater than 90 .

Query :

Select * From Students Where Name LIKE 'P%' and Marks > 90;

Output :

RollNo	Name	Address	Age	Marks
20	Pratik	Shirdi	21	91

25. Display name of student with second maximum marks.

Query :

Select Name ,MAX(Marks) as Marks from Students Where Marks < (Select MAX(Marks) from Students);

Output :

name	Marks
Amit	91

26. Display total number of students from each city.

Query :

```
SELECT Address,COUNT(RollNo) FROM Student GROUP BY Address;
```

Output :

Address	COUNT(RollNo)
Aurangabad	1
Dhule	1
Mumbai	4
Nagar	1
Nagpur	1
Nasik	4
Pune	3
Sangli	1
Satara	3
Shirdi	1

27. Display total number of students from each age group.

Query :

```
SELECT Age,COUNT(RollNo) FROM Student GROUP BY Age;
```

Output :

Age	COUNT(RollNo)
20	4
21	4
23	3
24	3
26	3
27	1
29	1
30	1

28. Display details of student having lowest marks.

Query :

```
Select name, Address, Age, MIN(Marks) from Student;
```

Output :

name	Address	Age	MIN(Marks)
Amit	Pune	21	45

29. Display number of students in each city. Only include such a cities which contains more than one student.

Query :

```
SELECT COUNT(RollNo), Address
FROM Student
GROUP BY Address
HAVING COUNT(RollNo) > 1;
```

Output :

COUNT(RollNo)	Address
4	Mumbai
4	Nasik
3	Pune
3	Satara

29. Display all names of students whose name consist of only 4 letters in it

Query :

```
SELECT Name
FROM Student
where Name LIKE '----';
```

Output :

Name
Amit
Riya

30. Display Maximum obtained marks in each city.

Query :

```
SELECT Max(Marks)
FROM Student
GROUP BY Address;
```

Output :

Address	Max(Marks)
Aurangabad	77
Dhule	89
Mumbai	98
Nagar	57
Nagpur	67
Nasik	89
Pune	90
Sangli	50
Satara	90
Shirdi	01

30. Display Minimum obtained marks in each city.

Query :

```
SELECT MIN(Marks)
FROM Student
GROUP BY Address;
```

Output :

Address	MIN(Marks)
Aurangabad	77
Dhule	89
Mumbai	67
Nagar	57
Nagpur	67
Nasik	56
Pune	78
Sangli	50
Satara	45
Shirdi	91

31. Display all names of students whose age is in between 25 to 30.

Query :

```
Select Name ,Age from student
where Age >=25 AND Age <=30;
```

Output :

Name	Age
Poorva	27
Rahul	26
Chetann	26
Radhika	29
Riya	26
Yuvraj	30

32. Display contents of Student table in Descending order by there Marks.

Query :

Select * from Student Order by Marks DESC;

Output :

RollNo	Name	Address	Age	Marks
11	Bhavesh	Mumbai	20	98
15	Hemant	Mumbai	20	98
20	Pratik	Shirdi	21	91
1	Amit	Pune	21	90
13	Deven	Satara	24	90
10	Rahul	Pune	26	90
2	Sagar	Mumbai	23	89
14	Gaurav	Dhule	23	89
4	Pooja	Nasik	21	89
5	Pooja	Satara	21	89
6	Pranali	Nasik	24	80
9	Ramesh	Pune	20	78
3	Sumit	Nasik	23	78
19	Yuvraj	Aurangabad	30	77
8	Poorva	Nagpur	27	67
16	Radhika	Mumbai	29	67
7	Parag	Nagar	20	57
12	Chetann	Nasik	26	56
17	Riya	Sangli	26	50
18	Gautam	Satara	24	45

33. Increase marks of student by 15% whose name is Pooja.

UPDATE Student SET Marks = Marks * 1.15 WHERE Name = 'Pooja'

RollNo	Name	Address	Age	Marks
1	Amit	Pune	21	90
2	Sagar	Mumbai	23	89
3	Sumit	Nasik	23	78
4	Pooja	Nasik	21	102
5	Pooja	Satara	21	102
6	Pranali	Nasik	24	80
7	Parag	Nagar	20	57
8	Poorva	Nagpur	27	67
9	Ramesh	Pune	20	78
10	Rahul	Pune	26	90
11	Bhavesh	Mumbai	20	98
12	Chetann	Nasik	26	56
13	Deven	Satara	24	90
14	Gaurav	Dhule	23	89
15	Hemant	Mumbai	20	98
16	Radhika	Mumbai	29	67
17	Riya	Sangli	26	50
18	Gautam	Satara	24	45
19	Yuvraj	Aurangabad	30	77
20	Pratik	Shirdi	21	91

34. Increase marks of each student by 2% from Pune and Satara.

Query :

```
UPDATE Student SET Marks = Marks * 1.02 WHERE Address = 'Pune' OR Address = 'Satara';
```

35. Display all names of students that are not from pune, Mumbai and nasik.

Query :

```
SELECT name FROM Student WHERE Address NOT IN ('Pune', 'Mumbai', 'Nasik')
```

