**OUTPUT:**

# mysql> show databases;

+ +

| Database

|

+ +

| information\_schema |

| A |

| Atharva |

| COMPUTER |

| H |

| DPCOE |

| RUTU |

| mysql |

| Sam |

| Saml |

| performance\_schema |

| Rutu |

| sys |

| time |

+ +

14 rows in set (0.21 sec)

# mysql> use Atharva;

Reading table information for completion of table and column names

You can turn off this feature to get a quicker startup with -ADatabase changed

# mysql> show tables;

+ +

| Tables\_in\_Atharva |

+ +

| Employee |

| TE |

| auto |

| c\_master |

| product\_master |

+ +

5 rows in set (0.00 sec)

# mysql> create table \_master(product\_no int,description varchar(20),profit\_per float,unit\_measure varchar(10),quantity int,reorder int,sell\_price float,cost\_price float,primary key(product\_no));

Query OK, 0 rows affected (0.55 sec)

# mysql> create table customer(cust\_no int,cust\_name varchar(20),cust\_add varchar(20),phone\_no int,primary key(cust\_no));

Query OK, 0 rows affected (0.28 sec)

# mysql> create table capital(cap\_no int,cap\_name varchar(20),state\_no int,primary key(cap\_no));

Query OK, 0 rows affected (0.27 sec)

# mysql> create table state(state\_no int,state\_name varchar(20),state\_code int,capital varchar(20),primary key(state\_no));

Query OK, 0 rows affected (0.28 sec)

# mysql> insert into capital values('01','MH','01');

Query OK, 1 row affected (0.12 sec)

# mysql> insert into capital values('02','RAJ','02');

Query OK, 1 row affected (0.04 sec)

# mysql> insert into capital values('03','GOA','03');

Query OK, 1 row affected (0.05 sec)

# mysql> insert into capital values('04','GUJ','04');

Query OK, 1 row affected (0.05 sec)

mysql> insert into capital values('05','KAR','05'); Query OK, 1 row affected (0.04 sec)

# mysql> insert into state values('01','MH','01','MUM');

Query OK, 1 row affected (0.03 sec)

# mysql> insert into state values('02','RAJ','02','JAI');

Query OK, 1 row affected (0.03 sec)

# mysql> insert into state values('03','GOA','03','PAN');

Query OK, 1 row affected (0.04 sec)

# mysql> insert into state values('04','GUJ','04','SUR');

Query OK, 1 row affected (0.04 sec)

# mysql> insert into state values('05','KAR','05','BAN');

Query OK, 1 row affected (0.03 sec)

# mysql> select \* from capital;

+ + + +

| cap\_no | cap\_name | state\_no |

+ + + +| 1 | MH | 1 |

| 2 | RAJ | 2 |

| 3 | GOA | 3 |

| 4 | GUJ | 4 |

| 5 | KAR | 5 |

+ + + +

5 rows in set (0.01 sec)

# mysql> select \* from state;

+ + + + +

| state\_no | state\_name | state\_code | capital |

+ + + + +

| 1 | MH | 1 | MUM |

| 2 | RAJ | 2 | JAI |

| 3 | GOA | 3 | PAN |

| 4 | GUJ | 4 | SUR |

| 5 | KAR | 5 | BAN |

+ + + + +

5 rows in set (0.00 sec)

# mysql> select capital.cap\_no, state.state\_no from capital inner join state on capital.cap\_no=state.state\_no;

+ + +

| cap\_no | state\_no |

+ + +

| 1 | 1 |

| 2 | 2 |

| 3 | 3 |

| 4 | 4 |

| 5 | 5 |

+ + +

5 rows in set (0.06 sec)

# mysql> UPDATE state SET state\_no="78" where state\_no='1';

Query OK, 1 row affected (0.04 sec) Rows matched: 1

Changed: 1

Warnings: 0

# mysql> UPDATE state SET state\_no="58" where state\_no='2';

Query OK, 1 row affected (0.04 sec) Rows matched: 1

Changed: 1

Warnings: 0

# mysql> UPDATE state SET state\_no="46" where state\_no='3';

Query OK, 1 row affected (0.03 sec) Rows matched: 1

Changed: 1

Warnings: 0

# mysql> UPDATE state SET state\_no="489" where state\_no='4';

Query OK, 1 row affected (0.05 sec) Rows matched: 1

Changed: 1

Warnings: 0

# mysql> UPDATE state SET state\_no="458" where state\_no='5';

Query OK, 1 row affected (0.03 sec) Rows matched: 1

Changed: 1

Warnings: 0

# mysql> insert into state values('05','MP','05','BHO');

Query OK, 1 row affected (0.03 sec)

# mysql> select capital.cap\_no, state.state\_no from capital inner join state on capital.cap\_no=state.state\_no;

+ + +

| cap\_no | state\_no |

+ + +

|

5 |

5 |

+ + +

1 row in set (0.00 sec)

# mysql> select capital.cap\_no, state.state\_no from capital left join state on capital.cap\_no=state.state\_no;

+ + +

| cap\_no | state\_no |

+ + +

| 1 | NULL |

| 2 | NULL |

| 3 | NULL |

| 4 | NULL |

| 5 | 5 |

+ + +

5 rows in set (0.00 sec)

# mysql> select capital.cap\_no, state.state\_no from capital left join state on capital.cap\_no=state.state\_name;

+ + +

| cap\_no | state\_no |

+ + +

| 1 | NULL |

| 2 | NULL |

| 3 | NULL |

| 4 | NULL |

| 5 | NULL |

+ + +

5 rows in set, 20 warnings (0.00 sec)

# mysql> select capital.cap\_no, state.state\_no from capital right join state on capital.cap\_no=state.state\_no;

+ + +

| cap\_no | state\_no |

+ + +

|

5 |

5 || NULL | 46 |

| NULL | 58 |

| NULL | 78 |

| NULL | 458 |

| NULL | 489 |

+ + +

6 rows in set (0.00 sec)

# mysql> select \* from capital;

+ + + +

| cap\_no | cap\_name | state\_no |

+ + + +

| 1 | MH | 1 |

| 2 | RAJ | 2 |

| 3 | GOA | 3 |

| 4 | GUJ | 4 |

| 5 | KAR | 5 |

+ + + +

5 rows in set (0.00 sec)

# mysql> select \* from state;

+ + + + +

| state\_no | state\_name | state\_code | capital |

+ + + + +

| 5 | MP | 5 | BHO |

| 46 | GOA | 3 | PAN |

| 58 | RAJ | 2 | JAI |

| 78 | MH | 1 | MUM |

| 458 | KAR | 5 | BAN |

| 489 | GUJ | 4 | SUR |

+ + + + +

6 rows in set (0.00 sec)

# mysql> select \* from capital;

+ + + +

| cap\_no | cap\_name | state\_no |

+ + + +

| 1 | MH | 1 |

| 2 | RAJ | 2 |

| 3 | GOA | 3 |

| 4 | GUJ | 4 |

| 5 | KAR | 5 |

+ + + +

5 rows in set (0.00 sec)

# mysql> select capital.cap\_no, state.state\_no from capital inner join state on capital.cap\_no=state.state\_no;

+ + +

| cap\_no | state\_no |

+ + +

|

5 |

5 |

+ + +

1 row in set (0.00 sec)

# mysql> select capital.cap\_no,capital.cap\_name,state.capital,state.state\_no from capital inner join state on capital.cap\_no=state.state\_no;

+ + + + +

| cap\_no | cap\_name | capital | state\_no |

+ + + + +

|

5 | KAR

| BHO

|

5 |

+ + + + +

1 row in set (0.00 sec)

# mysql> select capital.cap\_no,capital.cap\_name,state.capital,state.state\_no from capital left join state on capital.cap\_no=state.state\_no;

+ + + + +

| cap\_no | cap\_name | capital | state\_no |

+ + + + +

| 1 | MH | NULL | NULL |

| 2 | RAJ | NULL | NULL |

| 3 | GOA | NULL | NULL |

| 4 | GUJ | NULL | NULL |

| 5 | KAR | BHO | 5 |

+ + + + +

5 rows in set (0.00 sec)

# mysql> select capital.cap\_no,capital.cap\_name,state.capital,state.state\_no from capital right join state on capital.cap\_no=state.state\_no;

+ + + + +

| cap\_no | cap\_name | capital | state\_no |

+ + + + +

|

5 | KAR

| BHO | 5 |

| NULL | NULL | PAN | 46 |

| NULL | NULL | JAI | 58 |

| NULL | NULL | MUM | 78 |

| NULL | NULL | BAN | 458 |

| NULL | NULL | SUR | 489 |

+ + + + +

6 rows in set (0.00 sec)

# mysql> select capital.cap\_no,capital.cap\_name,state.capital,state.state\_no from capital left join state on capital.cap\_no=state.state\_no union selectcapital.cap\_no,capital.cap\_name,state.capital,state.state\_no from capital right join state on capital.cap\_no=state.state\_no;

+ + + + +

| cap\_no | cap\_name | capital | state\_no |

+ + + + +

| 1 | MH | NULL | NULL |

| 2 | RAJ | NULL | NULL |

| 3 | GOA | NULL | NULL |

| 4 | GUJ | NULL | NULL |

| 5 | KAR | BHO | 5 |

| NULL | NULL | PAN | 46 |

| NULL | NULL | JAI | 58 |

| NULL | NULL | MUM | 78 |

| NULL | NULL | BAN | 458 |

| NULL | NULL | SUR | 489 |

+ + + + +

10 rows in set (0.00 sec)

# mysql> select \* from capital c1, state s1 where c1.cap\_no=s1.state\_no;

+ + + + +

+ + +

| cap\_no | cap\_name | state\_no | state\_no | state\_name | state\_code | capital |

+ + + + +

+ + +

|

5 | KAR

5 | BHO

|

|

5 |

5 | MP

|

+ + + + +

+ + +

1. row in set (0.00 sec)

# mysql> select \* from capital c1, state s1 where c1.cap\_no! =s1.state\_no;

+ + + + +

+ + +

| cap\_no | cap\_name | state\_no | state\_no | state\_name | state\_code | capital |

+ + + + +

+ + +

|

1. | MH

5 | BHO

| | 1 | 5 | MP |

|

1. | RAJ

5 | BHO

| | 2 | 5 | MP |

|

1. | GOA

5 | BHO

| | 3 | 5 | MP |

|

1. | GUJ
2. | BHO

| | 4 | 5 | MP |

|

1. | MH

3 | PAN

| | 1 | 46 | GOA |

|

1. | RAJ
2. | PAN

| | 2 | 46 | GOA |

|

3 | GOA

3 | PAN

| | 3 | 46 | GOA |

|

4 | GUJ

3 | PAN

| | 4 | 46 | GOA |

|

5 | KAR

3 | PAN

| | 5 | 46 | GOA |

|

1 | MH

2 | JAI

| | 1 | 58 | RAJ |

|

2 | RAJ

2 | JAI

| | 2 | 58 | RAJ |

|

3 | GOA

2 | JAI

| | 3 | 58 | RAJ |

|

4 | GUJ

2 | JAI

| | 4 | 58 | RAJ |

|

5 | KAR

2 | JAI

| | 5 | 58 | RAJ |

|

1 | MH

1 | MUM

| | 1 | 78 | MH |

|

2 | RAJ

1 | MUM

| | 2 | 78 | MH || 3 | GOA

1 | MUM

| | 3 | 78 | MH |

|

4 | GUJ

1 | MUM

| | 4 | 78 | MH |

|

5 | KAR

1. | MUM

| | 5 | 78 | MH |

|

1. | MH

5 | BAN

| | 1 | 458 | KAR |

|

1. | RAJ

5 | BAN

| | 2 | 458 | KAR |

|

1. | GOA

5 | BAN

| | 3 | 458 | KAR |

|

1. | GUJ
2. | BAN

| | 4 | 458 | KAR |

|

5 | KAR

5 | BAN

| | 5 | 458 | KAR |

|

1 | MH

4 | SUR

| | 1 | 489 | GUJ |

|

2 | RAJ

4 | SUR

| | 2 | 489 | GUJ |

|

3 | GOA

4 | SUR

| | 3 | 489 | GUJ |

|

4 | GUJ

4 | SUR

| | 4 | 489 | GUJ |

|

5 | KAR

4 | SUR

| | 5 | 489 | GUJ |

+ + + + +

+ + +

29 rows in set (0.00 sec)

# mysql> select \* from state where state\_no=(select state\_no from state where state\_name='MH');

+ + + + +

| state\_no | state\_name | state\_code | capital |

+ + + + +

|

78 | MH

|

1 | MUM

|

+ + + + +

1 row in set (0.06 sec)

# mysql> select \* from state where state\_no=(select state\_no from state where state\_name='GUJ');

+ + + + +

| state\_no | state\_name | state\_code | capital |

+ + + + +

|

489 | GUJ

|

4 | SUR

|

+ + + + +

1 row in set (0.00 sec)

# mysql> select \* from state where state\_no=(select capital.state\_no from capital where cap\_name='MH');

Empty set (0.00 sec)

# mysql> select \* from state where state\_no=(select capital.state\_no from capital where cap\_name='GUJ');

Empty set (0.00 sec)

# mysql> select \* from state where state\_no=(select capital.state\_no from capital where cap\_name='RAJ');

Empty set (0.00 sec)

# mysql> select \* from state where state\_no=(select capital.state\_no from capital where cap\_name='KAR');

+ + + + +

| state\_no | state\_name | state\_code | capital |

+ + + + +

|

5 | MP

|

5 | BHO

|

+ + + + +

1 row in set (0.00 sec)