Output-

mysql> show databases;

```
+.....+
Database
+.....+
| information schema |
|A|
Abhi |
COMPUTER |
| H |
PVG |
DIVYA |
mysql |
nishant |
nishantl |
performance schema |
divya |
sys |
time |
+.....+
14 rows in set (0.21 sec)
```

mysql> use Divya;

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_Divya |
+....+
| Employee |
```

```
| TE |
auto
c master
| product master |
+.....+
5 rows in set (0.00 \text{ sec})
mysql> create table master(product no int, description varchar(20), profit per
                                                   int.reorder
float, unit measure
                        varchar(10), quantity
                                                                    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)
mysgl>
          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');
              OK.
                           1
                                                 affected
Query
                                    row
                                                                 (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 \text{ 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 \text{ 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 \text{ 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 \text{ 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 \text{ rows in set } (0.00 \text{ 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 \text{ 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 \text{ 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 \text{ 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 \text{ 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 \text{ 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 |
| 3 | GOA | NULL | NULL |
| 4 | GUJ | NULL | NULL |
| 5 | KAR | BHO | 5 |
+.....+
5 rows in set (0.00 \text{ 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 \text{ sec})
mysql> select capital.cap no,capital.cap name,state.capital,state.state no from
               ioin
                      state
                                    capital.cap no=state.state no
                              on
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 \text{ 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 | MP

```
+.....+.....+.....+......
1 row in set (0.00 \text{ 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 |
2 | RAJ
5 | BHO
| | 2 | 5 | MP |
3 | GOA
5 | BHO
| | 3 | 5 | MP |
4 | GUJ
5 | BHO
| | 4 | 5 | MP |
1 | MH
3 | PAN
| | 1 | 46 | GOA |
2 | RAJ
3 | 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 \mid 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 |
2 | RAJ
5 | BAN
| | 2 | 458 | KAR |
3 | GOA
5 | BAN
| | 3 | 458 | KAR |
4 | GUJ
5 | 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 \text{ 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 \text{ 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 \text{ sec})
mysql> select * from state where state no=(select capital.state no from capital
where cap name='RAJ');
Empty set (0.00 \text{ 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
```

