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Machine IP's: 100.66.1.31 and 100.66.2.31

1) The output of the hostname command from both of your machines.

Ans.

```
[ali@ali-swb ~]$ hostname  
ali-swb
```

```
[ali@ali-swbdb ~]$ hostname  
ali-swbdb
```

2) Connect as your name named user on each machine and include the output of the whoami and groups command.

Ans.

```
[ali@ali-swb ~]$ whoami  
ali  
[ali@ali-swb ~]$ groups  
ali wheel
```

```
[ali@ali-swbdb ~]$ whoami  
ali  
[ali@ali-swbdb ~]$ groups  
ali wheel
```

3) Include the output of uname -a on both machines.

Ans.

```
[ali@ali-swb ~]$ uname -a  
Linux ali-swb 4.3.3-300.fc23.x86_64 #1 SMP Tue Jan 5 23:31:01 UTC 2016 x86_64 x86_64  
x86_64 GNU/Linux
```

```
[ali@ali-swbdb ~]$ uname -a  
Linux ali-swbdb 4.3.3-300.fc23.x86_64 #1 SMP Tue Jan 5 23:31:01 UTC 2016 x86_64  
x86_64 x86_64 GNU/Linux
```

4)

a) Create a planetsDB database.

Ans. create DATABASE `planetsDB`;
use planetsDB;

b) Grant ralphie privileges on planets database.

Ans.

```
MariaDB [(none)]> grant select, insert, update, delete on planetsDB.* to 'ralphie'@'localhost';  
Query OK, 0 rows affected (0.00 sec)
```

c) Create a planets table with Columns: id, planet, distance from sun and diameter.
Ans.

```
MariaDB [planetsDB]> CREATE TABLE IF NOT EXISTS `planets` (  
-> `id` INT NOT NULL AUTO_INCREMENT ,  
-> `planet` VARCHAR(20) NULL ,  
-> `distance from sun` FLOAT NULL ,  
-> `diameter` FLOAT NULL ,  
-> PRIMARY KEY (`id`))  
-> ENGINE = InnoDB;
```

Query OK, 0 rows affected (0.02 sec)

d) Include the command output of:

i) Selecting all planets

Ans.

Displaying below all the details of the planets table.

```
MariaDB [planetsDB]> select * from planets;
```

id	planet	distance from sun	diameter
1	Mercury	4879	57.9
2	Venus	12104	108.2
3	Earth	12756	149.6
4	Mars	6792	227.9
5	Jupiter	142984	778.6
6	Saturn	120536	1433.5
7	Uranus	51118	2872.5
8	Neptune	49528	4495.1
9	Pluto	2370	5906.4

9 rows in set (0.00 sec)

ii) Selecting all that contain the letter e

Ans.

Displaying below all the details of the planets table that contain the letter e.

```
MariaDB [planetsDB]> select * from planets where planet like'%e%';
```

id	planet	distance from sun	diameter
1	Mercury	4879	57.9
2	Venus	12104	108.2
3	Earth	12756	149.6
5	Jupiter	142984	778.6
8	Neptune	49528	4495.1

5 rows in set (0.00 sec)

iii) Selecting all sorted by Diameter

Ans.

Displaying below all the details of the planets table order by Diameter in ascending order.

MariaDB [planetsDB]> select * from planets order by diameter;

```
+---+-----+-----+-----+
| id | planet | distance from sun | diameter |
+---+-----+-----+-----+
| 1 | Mercury | 4879 | 57.9 |
| 2 | Venus | 12104 | 108.2 |
| 3 | Earth | 12756 | 149.6 |
| 4 | Mars | 6792 | 227.9 |
| 5 | Jupiter | 142984 | 778.6 |
| 6 | Saturn | 120536 | 1433.5 |
| 7 | Uranus | 51118 | 2872.5 |
| 8 | Neptune | 49528 | 4495.1 |
| 9 | Pluto | 2370 | 5906.4 |
+---+-----+-----+-----+
9 rows in set (0.00 sec)
```

Displaying below all the details of the planets table order by Diameter in descending order.

MariaDB [planetsDB]> select * from planets order by diameter DESC;

```
+---+-----+-----+-----+
| id | planet | distance from sun | diameter |
+---+-----+-----+-----+
| 9 | Pluto | 2370 | 5906.4 |
| 8 | Neptune | 49528 | 4495.1 |
| 7 | Uranus | 51118 | 2872.5 |
| 6 | Saturn | 120536 | 1433.5 |
| 5 | Jupiter | 142984 | 778.6 |
| 4 | Mars | 6792 | 227.9 |
| 3 | Earth | 12756 | 149.6 |
| 2 | Venus | 12104 | 108.2 |
| 1 | Mercury | 4879 | 57.9 |
+---+-----+-----+-----+
9 rows in set (0.00 sec)
```

iv) Selecting all sorted alphabetically

Ans.

Displaying below all the details of the planets table sorted alphabetically.

MariaDB [planetsDB]> select * from planets order by planet;

```
+---+-----+-----+-----+
| id | planet | distance from sun | diameter |
+---+-----+-----+-----+
| 3 | Earth | 12756 | 149.6 |
| 5 | Jupiter | 142984 | 778.6 |
```

4	Mars	6792	227.9
1	Mercury	4879	57.9
8	Neptune	49528	4495.1
9	Pluto	2370	5906.4
6	Saturn	120536	1433.5
7	Uranus	51118	2872.5
2	Venus	12104	108.2

9 rows in set (0.00 sec)

v) Selecting all sorted by distance from the sun
Ans.

Displaying below all the details of the planets table order by distance from sun in ascending order.

MariaDB [planetsDB]> select * from planets order by `distance from sun`;

id	planet	distance from sun	diameter
9	Pluto	2370	5906.4
1	Mercury	4879	57.9
4	Mars	6792	227.9
2	Venus	12104	108.2
3	Earth	12756	149.6
8	Neptune	49528	4495.1
7	Uranus	51118	2872.5
6	Saturn	120536	1433.5
5	Jupiter	142984	778.6

9 rows in set (0.00 sec)

Displaying below all the details of the planets table order by distance from sun in descending order.

MariaDB [planetsDB]> select * from planets order by `distance from sun` DESC;

id	planet	distance from sun	diameter
5	Jupiter	142984	778.6
6	Saturn	120536	1433.5
7	Uranus	51118	2872.5
8	Neptune	49528	4495.1
3	Earth	12756	149.6
2	Venus	12104	108.2
4	Mars	6792	227.9
1	Mercury	4879	57.9
9	Pluto	2370	5906.4

9 rows in set (0.00 sec)

5) Add state capitals and population to statesDB

Ans.

Displaying below all the details of the states table with state capitals and population data.

MariaDB [statesDB]> select * from statesData;

id	state	abbreviation	capital	population
1	Alabama	AL	Montgomery	4779736
2	Alaska	AK	Juneau	710231
3	Arizona	AZ	Phoenix	6392017
4	Arkansas	AR	Little Rock	2915918
5	California	CA	Sacramento	37253956
6	Colorado	CO	Denver	5029196
7	Connecticut	CT	Hartford	3574097
8	Delaware	DE	Dover	897934
9	Florida	FL	Tallahassee	18801310
10	Georgia	GA	Atlanta	9687653
11	Hawaii	HI	Honolulu	1360301
12	Idaho	ID	Boise	1567582
13	Illinois	IL	Springfield	12830632
14	Indiana	IN	Indianapolis	6483802
15	Iowa	IA	Des Moines	3046355
16	Kansas	KS	Topeka	2853118
17	Kentucky	KY	Frankfort	4339367
18	Louisiana	LA	Baton Rouge	4533372
19	Maine	ME	Augusta	1328361
20	Maryland	MD	Annapolis	5773552
21	Massachusetts	MA	Boston	6547629
22	Michigan	MI	Lansing	9883640
23	Minnesota	MN	St. Paul	5303925
24	Mississippi	MS	Jackson	2967297
25	Missouri	MO	Jefferson City	5988927
26	Montana	MT	Helena	989415
27	Nebraska	NE	Lincoln	1826341
28	Nevada	NV	Carson City	2700551
29	New Hampshire	NH	Concord	1316470
30	New Jersey	NJ	Trenton	8791894
31	New Mexico	NM	Santa Fe	2059179
32	New York	NY	Albany	19378102
33	North Carolina	NC	Raleigh	9535483
34	North Dakota	ND	Bismarck	672591
35	Ohio	OH	Columbus	11536504
36	Oklahoma	OK	Oklahoma City	3751351
37	Oregon	OR	Salem	3831074

38	Pennsylvania	PA	Harrisburg	12702379
39	Rhode Island	RI	Providence	1052567
40	South Carolina	SC	Columbia	4625364
41	South Dakota	SD	Pierre	814180
42	Tennessee	TN	Nashville	6346105
43	Texas	TX	Austin	25145561
44	Utah	UT	Salt Lake City	2763885
45	Vermont	VT	Montpelier	625741
46	Virginia	VA	Richmond	8001024
47	Washington	WA	Olympia	6724540
48	West Virginia	WV	Charleston	1852994
49	Wisconsin	WI	Madison	5686986
50	Wyoming	WY	Cheyenne	582658

+---+-----+-----+-----+-----+

50 rows in set (0.00 sec)