

1. Create 'spj' database'. (Database for suppliers, parts and jobs)

2. use spj database;

```
Windows PowerShell
Windows PowerShell
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PS C:\Windows\MySQL> mysql -u root -p1234567890
mysql: [Warning] Using a password on the command line interface can be insecure.

Welcome to the MySQL monitor. Commands end with ; or \g.
Your MySQL connection id is 37
Server version: 8.0.41 MySQL Community Server - GPL

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

root> CREATE DATABASE spj;
Query OK, 1 row affected (0.01 sec)

root> GRANT ALL ON spj.* TO 'H03_Vaishnavi_96224'@'localhost';
Query OK, 0 rows affected (0.01 sec)

root> FLUSH PRIVILEGES;
Query OK, 0 rows affected (0.00 sec)

root>
```

3. Create following tables in spj database.

Note : S denotes the Suppliers Table.

```
CREATE TABLE S (S# CHAR(5) NOT NULL, Sname CHAR(20), status SMALLINT, city  
CHAR(15));
```

Note : P denotes the Parts table.

```
CREATE TABLE P (P# CHAR(6) NOT NULL, Pname CHAR(20), color CHAR(6), weight  
SMALLINT, city CHAR(15));
```

Note : J denotes the Jobs table.

```
CREATE TABLE J (J# CHAR(4) NOT NULL, Jname CHAR(10), City CHAR(15));
```

```
CREATE TABLE sp (S# CHAR(4) NOT NULL, P# CHAR(4) NOT NULL, J# CHAR(4) NOT NULL,  
QTY INT)
```

```
KD3_Vaishnavi_96234> SHOW TABLES;
+-----+
| Tables_in_spj |
+-----+
| j
| p
| s
| sp
+-----+
4 rows in set (0.01 sec)
```

```
KD3_Vaishnavi_96234> SELECT * FROM j;
+---+---+---+
| J# | Jname      | City    |
+---+---+---+
| J1 | Sorter     | Paris   |
| J2 | Punch       | Rome    |
| J3 | Reader      | Athens  |
| J4 | Console     | Athens  |
| J5 | Collator    | London  |
| J6 | Terminal    | Oslo    |
| J7 | Tape        | London  |
+---+---+---+
7 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234> SELECT * FROM p;
+---+---+---+---+---+
| P# | Pname      | color | weight | city   |
+---+---+---+---+---+
| P1 | Nut        | Red   | 12    | London |
| P2 | Bolt       | Green  | 17    | Paris  |
| P3 | Screw      | Blue  | 17    | Rome   |
| P4 | Screw      | Red   | 14    | London |
| P5 | Cam        | Blue  | 12    | Paris  |
| P6 | Cog        | Red   | 19    | London |
+---+---+---+---+---+
6 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234>SELECT * FROM s;
+---+-----+-----+-----+
| S# | Sname | status | city   |
+---+-----+-----+-----+
| S1 | Smith |      20 | London |
| S2 | Jones |      10 | Paris  |
| S3 | Blake |     30 | Paris  |
| S4 | Clark |     20 | London |
| S5 | Adams |     30 | Athens |
+---+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234>SELECT * FROM sp;
+---+---+---+---+
| S# | P# | J# | QTY |
+---+---+---+---+
| S1 | P1 | J1 | 200 |
| S1 | P1 | J4 | 700 |
| S2 | P3 | J1 | 400 |
| S2 | P3 | J2 | 200 |
| S2 | P3 | J2 | 200 |
| S2 | P3 | J3 | 200 |
| S2 | P3 | J4 | 500 |
| S2 | P3 | J5 | 600 |
| S2 | P3 | J6 | 400 |
| S2 | P3 | J7 | 800 |
| S2 | P5 | J2 | 100 |
| S3 | P3 | J1 | 200 |
| S3 | P4 | J2 | 500 |
| S4 | P6 | J3 | 300 |
| S4 | P6 | J7 | 300 |
| S5 | P2 | J2 | 200 |
| S5 | P2 | J4 | 100 |
| S5 | P5 | J5 | 500 |
| S5 | P5 | J7 | 100 |
| S5 | P5 | J7 | 100 |
| S5 | P6 | J2 | 200 |
| S5 | P1 | J4 | 100 |
| S5 | P3 | J4 | 200 |
| S5 | P4 | J4 | 800 |
| S5 | P5 | J4 | 400 |
| S5 | P6 | J4 | 500 |
+---+---+---+---+
26 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234>
```

NOTE – Database Creation and user Creation, assigning privileges is responsibility of Database Administrator (root)

1. Create 'hr' database. Import hr-db.sql.
2. Create 'sales' database. Import sales-db.sql.

```
root> USE hr;
Database changed
root>
root> SOURCE C:\Users\DELL\OneDrive\Desktop\Sunbeam\dbt\ dbs\new-hr-db.sql
Query OK, 0 rows affected (0.00 sec)

root> CREATE DATABASE sales;
Query OK, 1 row affected (0.01 sec)

root> USE sales;
Database changed
root> SOURCE C:\Users\DELL\OneDrive\Desktop\Sunbeam\dbt\ dbs\sales-db.sql
Query OK, 0 rows affected, 1 warning (0.03 sec)
```

3. List all tables in hr database. Display contents of all tables (one by one).

```
KD3_Vaishnavi_96234>use hr;
Database changed
KD3_Vaishnavi_96234>show tables;
+-----+
| Tables_in_hr |
+-----+
| countries      |
| departments    |
| employees      |
| job_history    |
| jobs           |
| locations      |
| regions         |
+-----+
7 rows in set (0.00 sec)
```

KD3_Vaishnavi_96234> SELECT * FROM countries;

COUNTRY_ID	COUNTRY_NAME	REGION_ID
AR	Argentina	20
AU	Australia	40
BE	Belgium	10
BR	Brazil	20
CA	Canada	20
CH	Switzerland	10
CN	China	30
DE	Germany	10
DK	Denmark	10
EG	Egypt	50
FR	France	10
GB	United Kingdom of Great Britain and Nort	10
IL	Israel	30
IN	India	30
IT	Italy	10
JP	Japan	30
KW	Kuwait	30
ML	Malaysia	30
MX	Mexico	20
NG	Nigeria	50
NL	Netherlands	10
SG	Singapore	30
US	United States of America	20
ZM	Zambia	50
ZW	Zimbabwe	50

25 rows in set (0.00 sec)

KD3_Vaishnavi_96234> SELECT * FROM employees;

EMPLOYEE_ID	FIRST_NAME	LAST_NAME	EMAIL	PHONE_NUMBER	HIRE_DATE	JOB_ID	SALARY	COMMISSION_PCT	MANAGER_ID	DEPARTMENT_ID
100	Steven	King	SKING	1.515.555.0100	2013-06-17	AD_PRES	24000.00	NULL	NULL	90
101	Neena	Yang	NYANG	1.515.555.0101	2013-09-21	AD_VP	17000.00	NULL	100	90
102	Lex	Garcia	LGARCIA	1.515.555.0102	2011-01-13	AD_VP	17000.00	NULL	100	90
103	Alexander	James	AJAMES	1.599.555.0103	2016-01-03	IT_PROG	9000.00	NULL	102	60
104	Bruce	Miller	B MILLER	1.599.555.0104	2017-05-21	IT_PROG	6000.00	NULL	103	60
105	David	Williams	DWILLIAMS	1.599.555.0105	2015-06-25	IT_PROG	4800.00	NULL	103	60
106	Valli	Jackson	V JACKSON	1.599.555.0106	2016-02-05	IT_PROG	4800.00	NULL	103	60
107	Diana	Nguyen	DINGUYEN	1.599.555.0107	2017-02-07	IT_PROG	4200.00	NULL	103	60
108	Nancy	Gruenberg	NGRUENBE	1.515.555.0108	2012-08-17	FI_MGR	12000.00	NULL	101	100
109	Daniel	Faviet	DFAVIET	1.515.555.0109	2012-08-16	FI_ACCOUNT	9000.00	NULL	108	100
110	John	Chen	JCHEN	1.515.555.0110	2015-09-28	FI_ACCOUNT	8200.00	NULL	108	100
111	Ismail	Sciarrra	ISCIARRA	1.515.555.0111	2015-09-30	FI_ACCOUNT	7700.00	NULL	108	100
112	Jose Manuel	Urman	JURMAN	1.515.555.0112	2016-03-07	FI_ACCOUNT	7800.00	NULL	108	100
113	Luis	Popp	LPOPP	1.515.555.0113	2017-12-07	FI_ACCOUNT	6900.00	NULL	108	100
114	Den	Li	DLI	1.515.555.0114	2012-12-07	PU_MAN	11000.00	NULL	100	30
115	Alexander	Khoo	AKHOO	1.515.555.0115	2013-05-18	PU_CLERK	3100.00	NULL	114	30
116	Shelli	Baida	SBaida	1.515.555.0116	2015-12-24	PU_CLERK	2900.00	NULL	114	30
117	Sigal	Tobias	STOBIAS	1.515.555.0117	2015-07-24	PU_CLERK	2800.00	NULL	114	30
118	Guy	Hiimuro	GHIMURO	1.515.555.0118	2016-11-15	PU_CLERK	2600.00	NULL	114	30
119	Karen	Colmenares	KCOLMENA	1.515.555.0119	2017-08-10	PU_CLERK	2500.00	NULL	114	30
120	Matthew	Weiss	MWEISS	1.658.555.0120	2014-07-18	ST_MAN	8000.00	NULL	100	50
121	Adam	Fripp	AFRIPP	1.658.555.0121	2015-04-10	ST_MAN	8200.00	NULL	100	50
122	Payam	Kaufling	PKAULIN	1.658.555.0122	2013-05-01	ST_MAN	7900.00	NULL	100	50
123	Shanta	Vollman	SVOLLMAN	1.658.555.0123	2015-10-10	ST_MAN	6500.00	NULL	100	50
124	Kevin	Mourgos	KMOURGOS	1.658.555.0124	2017-11-16	ST_MAN	5800.00	NULL	100	50

107 rows in set (0.00 sec)

```
KD3_Vaishnavi_96234> SELECT * FROM departments;
```

DEPARTMENT_ID	DEPARTMENT_NAME	MANAGER_ID	LOCATION_ID
10	Administration	200	1700
20	Marketing	201	1800
30	Purchasing	114	1700
40	Human Resources	203	2400
50	Shipping	121	1500
60	IT	103	1400
70	Public Relations	204	2700
80	Sales	145	2500
90	Executive	100	1700
100	Finance	108	1700
110	Accounting	205	1700
120	Treasury	NULL	1700
130	Corporate Tax	NULL	1700
140	Control And Credit	NULL	1700
150	Shareholder Services	NULL	1700
160	Benefits	NULL	1700
170	Manufacturing	NULL	1700
180	Construction	NULL	1700
190	Contracting	NULL	1700
200	Operations	NULL	1700
210	IT Support	NULL	1700
220	NOC	NULL	1700
230	IT Helpdesk	NULL	1700
240	Government Sales	NULL	1700
250	Retail Sales	NULL	1700
260	Recruiting	NULL	1700
270	Payroll	NULL	1700

```
27 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234> SELECT * FROM regions;
```

REGION_ID	REGION_NAME
50	Africa
20	Americas
30	Asia
10	Europe
40	Oceania

```
5 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234> SELECT * FROM locations;
```

LOCATION_ID	STREET_ADDRESS	POSTAL_CODE	CITY	STATE_PROVINCE	COUNTRY_ID
1000	1297 Via Cola di Rie	00989	Roma	NULL	IT
1100	93091 Calle della Testa	10934	Venice	NULL	IT
1200	2017 Shinjuku-ku	1689	Tokyo	Tokyo Prefecture	JP
1300	9450 Kamiya-cho	6823	Hiroshima	NULL	JP
1400	2014 Jabberwocky Rd	26192	Southlake	Texas	US
1500	2011 Interiors Blvd	99236	South San Francisco	California	US
1600	2007 Zagora St	50090	South Brunswick	New Jersey	US
1700	2004 Charade Rd	98199	Seattle	Washington	US
1800	147 Spadina Ave	M5V 2L7	Toronto	Ontario	CA
1900	6092 Boxwood St	Y5W 9T2	Whitehorse	Yukon	CA
2000	40-5-12 Laogianggen	190518	Beijing	NULL	CN
2100	1298 Vileparle (E)	490231	Bombay	Maharashtra	IN
2200	12-98 Victoria Street	2901	Sydney	New South Wales	AU
2300	198 Clementi North	540198	Singapore	NULL	SG
2400	8204 Arthur St	NULL	London	NULL	GB
2500	Magdalen Centre, The Oxford Science Park	OX9 9ZB	Oxford	Oxford	GB
2600	9762 Chester Road	09629850293	Stretford	Manchester	GB
2700	Schwanthaleralstr. 7031	80925	Munich	Bavaria	DE
2800	Rua Frei Caneca 1360	01307-002	Sao Paulo	Sao Paulo	BR
2900	20 Rue des Corps-Saints	1730	Geneva	Geneve	CH
3000	Murtenstrasse 921	3095	Bern	BE	CH
3100	Pieter Breughelstraat 837	3029SK	Utrecht	Utrecht	NL
3200	Mariano Escobedo 9991	11932	Mexico City	Distrito Federal	MX

23 rows in set (0.00 sec)

```
KD3_Vaishnavi_96234> SELECT * FROM jobs;
```

JOB_ID	JOB_TITLE	MIN_SALARY	MAX_SALARY
AC_ACCOUNT	Public Accountant	4200	9000
AC_MGR	Accounting Manager	8200	16000
AD_ASST	Administration Assistant	3000	6000
AD_PRES	President	20080	40000
AD_VP	Administration Vice President	15000	30000
FI_ACCOUNT	Accountant	4200	9000
FI_MGR	Finance Manager	8200	16000
HR REP	Human Resources Representative	4000	9000
IT_PROG	Programmer	4000	10000
MK_MAN	Marketing Manager	9000	15000
MK_REP	Marketing Representative	4000	9000
PR REP	Public Relations Representative	4500	10500
PU_CLERK	Purchasing Clerk	2500	5500
PU_MAN	Purchasing Manager	8000	15000
SA_MAN	Sales Manager	10000	20080
SA REP	Sales Representative	6000	12008
SH_CLERK	Shipping Clerk	2500	5500
ST_CLERK	Stock Clerk	2008	5000
ST_MAN	Stock Manager	5500	8500

19 rows in set (0.00 sec)

```
KD3_Vaishnavi_96234> SELECT * FROM job_history;
+-----+-----+-----+-----+-----+
| EMPLOYEE_ID | START_DATE | END_DATE | JOB_ID | DEPARTMENT_ID |
+-----+-----+-----+-----+-----+
| 101 | 2007-09-21 | 2011-10-27 | AC_ACCOUNT | 110 |
| 101 | 2011-10-28 | 2015-03-15 | AC_MGR | 110 |
| 102 | 2011-01-13 | 2016-07-24 | IT_PROG | 60 |
| 114 | 2016-03-24 | 2017-12-31 | ST_CLERK | 50 |
| 122 | 2017-01-01 | 2017-12-31 | ST_CLERK | 50 |
| 176 | 2016-03-24 | 2016-12-31 | SA REP | 80 |
| 176 | 2017-01-01 | 2017-12-31 | SA_MAN | 80 |
| 200 | 2005-09-17 | 2011-06-17 | AD_ASST | 90 |
| 200 | 2012-07-01 | 2016-12-31 | AC_ACCOUNT | 90 |
| 201 | 2014-02-17 | 2017-12-19 | MK REP | 20 |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

4. List all tables in sales database. Display contents of all tables (one by one).

```
KD3_Vaishnavi_96234> USE sales;
Database changed
KD3_Vaishnavi_96234> SHOW TABLES;
+-----+
| Tables_in_sales |
+-----+
| customers      |
| orders         |
| salespeople    |
+-----+
3 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234> SELECT* FROM salespeople;
+-----+-----+-----+-----+
| snum | sname | city | comm |
+-----+-----+-----+-----+
| 1001 | Peel | London | 0.12 |
| 1002 | Serres | San Jose | 0.13 |
| 1004 | Motika | London | 0.11 |
| 1007 | Rifkin | Barcelona | 0.15 |
| 1003 | Axelrod | New York | 0.10 |
+-----+-----+-----+-----+
5 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234> SELECT * FROM orders;
+-----+-----+-----+-----+-----+
| onum | amt      | odate        | cnum | snum |
+-----+-----+-----+-----+-----+
| 3001 | 18.69    | 1990-10-03  | 2008 | 1007 |
| 3003 | 767.19   | 1990-10-03  | 2001 | 1001 |
| 3002 | 1900.10   | 1990-10-03  | 2007 | 1004 |
| 3005 | 5160.45   | 1990-10-03  | 2003 | 1002 |
| 3006 | 1098.16   | 1990-10-03  | 2008 | 1007 |
| 3009 | 1713.23   | 1990-10-04  | 2002 | 1003 |
| 3007 | 75.75     | 1990-10-04  | 2004 | 1002 |
| 3008 | 4723.00   | 1990-10-04  | 2006 | 1001 |
| 3010 | 309.95   | 1990-10-04  | 2004 | 1002 |
| 3011 | 9891.88   | 1990-10-04  | 2006 | 1001 |
+-----+-----+-----+-----+-----+
10 rows in set (0.00 sec)
```

```
KD3_Vaishnavi_96234> SELECT * FROM customers;
+-----+-----+-----+-----+-----+
| cnum | cname    | city       | rating | snum |
+-----+-----+-----+-----+-----+
| 2001 | Hoffman  | London    | 100    | 1001 |
| 2002 | Giovanni | Rome     | 200    | 1003 |
| 2003 | Liu       | San Jose  | 200    | 1002 |
| 2004 | Grass     | Berlin   | 300    | 1002 |
| 2006 | Clemens   | London   | 100    | 1001 |
| 2008 | Cisneros  | San Jose | 300    | 1007 |
| 2007 | Pereira   | Rome    | 100    | 1004 |
+-----+-----+-----+-----+-----+
7 rows in set (0.00 sec)
```

Answer the following questions (by observations only – not queries).

1. How many orders data is present in the database? -->10
2. How many customers are present in the database? -->7
3. How many salespeople are present in the database? -->5
4. On which date order with highest amount is placed? --> 1990-10-04

5. For which order salesman got maximum commission? Hint: you need to refer data of two tables. --> 3006 | 1098.16 | 1990-10-03 | 2008 | 1007
6. Which salesmen are handling more than two customers? Hint: you need to refer data of two tables. --> Peel,Serres
7. Which city have single customer? --> Berlin
8. Which city has multiple salespeople? --> London
9. What is name of customer and salesman of the maximum amount order? --> Clemens, Peel
10. Study relationship between the tables in sales database.