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CREATING TABLES :

CREATING TABLE ZIPCODES

```
mysql> CREATE TABLE ZIPCODES(  
    -> zip int NOT NULL PRIMARY KEY,  
    -> city varchar(30));  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> DESC ZIPCODES;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type          | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| zip   | int(11)       | NO   | PRI | NULL    |       |  
| city  | varchar(30)   | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
2 rows in set (0.00 sec)
```

INSERTING VALUES IN ZIPCODES

```
mysql> INSERT INTO ZIPCODES VALUES (67226,"wichita"),(60606,"fort dodge");  
Query OK, 2 rows affected (0.00 sec)  
Records: 2  Duplicates: 0  Warnings: 0
```

ZIPCODES TABLE after INSERTING VALUES

```
mysql> SELECT * FROM ZIPCODES;  
+-----+-----+  
| zip   | city          |  
+-----+-----+  
| 50302 | kansas city  |  
| 54444 | columbia     |  
| 60606 | fort dodge   |  
| 60706 | patna        |  
| 61111 | fort hays    |  
| 61818 | delhi        |  
| 63111 | kolkata      |  
| 65222 | diamond      |  
| 66006 | liberal      |  
| 67226 | wichita      |  
+-----+-----+  
10 rows in set (0.00 sec)
```

CREATING TABLE EMPLOYEES

```
mysql> CREATE TABLE EMPLOYEES(  
-> eno int PRIMARY KEY,  
-> ename varchar(40),  
-> zip int references ZIPCODES(zip),  
-> hdate DATE );
```

Query OK, 0 rows affected (0.01 sec)

```
mysql> DESC EMPLOYEES;
```

Field	Type	Null	Key	Default	Extra
eno	int(11)	NO	PRI	NULL	
ename	varchar(40)	YES		NULL	
zip	int(11)	YES		NULL	
hdate	date	YES		NULL	

4 rows in set (0.00 sec)

ZIPCODES TABLE after INSERTING VALUES

```
mysql> SELECT * FROM EMPLOYEES;
```

eno	ename	zip	hdate
1000	jones	67226	1995-12-12
1001	smith	60606	1994-09-01
1002	brown	50302	1994-09-01
1003	bapi	54444	1997-11-21
1004	sanjit	54444	1985-02-10
1005	komal	61111	1999-01-05
1006	ramanath	66006	1985-05-07
1007	pasupati	61111	1985-03-03
1008	uttam	65222	1984-09-06
1009	arup	63111	1984-01-31
1010	biplab	60706	1984-03-22
1011	umpa	61818	1991-03-21
1012	mamoni	67226	1988-03-13
1013	anjali	60706	1992-03-23
1014	marium	61818	1993-03-22
1015	falguni	61818	1988-03-11

16 rows in set (0.00 sec)

CREATING TABLE PARTS

```
mysql> CREATE TABLE PARTS(  
-> pno int primary key,  
-> pname varchar(30),  
-> qoh int,  
-> price numeric(6,2),  
-> olevel int );  
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> DESC PARTS;
```

Field	Type	Null	Key	Default	Extra
pno	int(11)	NO	PRI	NULL	
pname	varchar(30)	YES		NULL	
qoh	int(11)	YES		NULL	
price	decimal(6,2)	YES		NULL	
olevel	int(11)	YES		NULL	

5 rows in set (0.00 sec)

PARTS TABLE after INSERTING VALUES

```
mysql> SELECT * FROM PARTS;
```

pno	pname	qoh	price	olevel
10506	land before time 1	200	17.99	20
10507	land before time 2	156	17.99	20
10508	land before time 3	190	17.99	20
10509	land before time 4	60	17.99	20
10601	Nut	300	24.99	30
10602	Bolt	120	17.99	30
10603	Screw	140	13.49	30
10800	Driller	100	24.99	30

8 rows in set (0.00 sec)

CREATING TABLE CUSTOMERS

```
mysql> CREATE TABLE CUSTOMERS(  
-> cno int PRIMARY KEY,  
-> cname varchar(30),  
-> street varchar(30),  
-> zip int REFERENCES ZIPCODES(zip),  
-> phone int );  
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> DESC CUSTOMERS;
```

Field	Type	Null	Key	Default	Extra
cno	int(11)	NO	PRI	NULL	
cname	varchar(30)	YES		NULL	
street	varchar(30)	YES		NULL	
zip	int(11)	YES		NULL	
phone	int(11)	YES		NULL	

5 rows in set (0.00 sec)

CUSTOMERS TABLE after INSERTING VALUES

```
mysql> SELECT * FROM CUSTOMERS;
```

cno	cname	street	zip	phone
1000	dipu	main st. 60706	543	9876543
1111	charles	main st. 67226	123	316636
2222	amina	lane 11 60606	124	24203227
3333	soma	main st. 54444	224	24203270
4444	rita	lane 13 66006	321	24219706
5555	bhaswati	main st. 50302	543	32157654
6666	santu	main st 61111	432	5432167
7777	manas	lane 17 61111	432	5432167
8888	monirul	main st. 65222	765	4321566
9988	barun	lane 12 61818	657	9876543
9999	tapan	lane 19 63111	654	5432156

11 rows in set (0.00 sec)

CREATING TABLE ORDERS

```
mysql> CREATE TABLE ORDERS(  
-> ono int PRIMARY KEY,  
-> cno int REFERENCES CUSTOMERS(cno),  
-> eno int REFERENCES EMPLOYEES(eno),  
-> recived DATE,  
-> shipped DATE );  
Query OK, 0 rows affected (0.00 sec)
```

```
mysql> DESC ORDERS;
```

Field	Type	Null	Key	Default	Extra
ono	int(11)	NO	PRI	NULL	
cno	int(11)	YES		NULL	
eno	int(11)	YES		NULL	
recived	date	YES		NULL	
shipped	date	YES		NULL	

5 rows in set (0.01 sec)

ORDERS TABLE after INSERTING VALUES

```
mysql> SELECT * FROM ORDERS;
```

ono	cno	eno	recived	shipped
1020	1111	1000	1994-12-10	1994-12-12
1021	1111	1000	1995-01-12	1995-01-15
1022	2222	1001	1997-01-20	NULL
1023	3333	1002	1998-04-13	1998-04-29
1024	4444	1003	1996-03-11	1996-03-13
1025	5555	1004	1996-03-11	1996-03-12
1026	5555	1004	1998-05-31	1998-06-08
1027	8888	1006	1995-05-23	1993-03-23
1028	7777	1007	1984-05-17	1993-12-18
1029	3333	1008	1992-12-13	1993-09-18
1030	2222	1010	1983-04-30	1985-09-17
1031	1000	1011	1993-05-26	1985-04-16
1032	1111	1012	1986-04-15	2005-05-31
1033	9988	1013	2000-04-18	2005-04-18
1034	9988	1014	2005-02-08	2005-02-18
1035	1111	1015	2005-04-18	NULL

16 rows in set (0.00 sec)

CREATING TABLE ODETAILS

```
mysql> CREATE TABLE ODETAILS(  
-> ono int REFERENCES ORDERS(ono),  
-> pno int REFERENCES PARTS(pno),  
-> qty int,  
-> PRIMARY KEY(ono,pno) );  
Query OK, 0 rows affected (0.00 sec)  
  
mysql> DESC ODETAILS;  
+-----+-----+-----+-----+-----+-----+  
| Field | Type      | Null | Key | Default | Extra |  
+-----+-----+-----+-----+-----+-----+  
| ono   | int(11)   | NO   | PRI | NULL    |       |  
| pno   | int(11)   | NO   | PRI | NULL    |       |  
| qty   | int(11)   | YES  |     | NULL    |       |  
+-----+-----+-----+-----+-----+-----+  
3 rows in set (0.00 sec)
```

ODETAILS TABLE after INSERTING VALUES

```
mysql> SELECT * FROM ODETAILS;  
+-----+-----+-----+  
| ono  | pno  | qty |  
+-----+-----+-----+  
| 1020 | 10507 | 5 |  
| 1021 | 10800 | 2 |  
| 1022 | 10507 | 6 |  
| 1026 | 10509 | 9 |  
| 1026 | 10801 | 4 |  
| 1028 | 10701 | 7 |  
| 1029 | 10507 | 3 |  
| 1029 | 10508 | 5 |  
| 1031 | 10603 | 1 |  
| 1032 | 10509 | 7 |  
| 1033 | 10602 | 8 |  
| 1034 | 10506 | 7 |  
| 1035 | 10601 | 5 |  
+-----+-----+-----+  
13 rows in set (0.00 sec)
```

QUERIES :

1.

```
mysql> SELECT DISTINCT(pno) FROM ODETAILS;
+-----+
| pno   |
+-----+
| 10507 |
| 10800 |
| 10509 |
| 10801 |
| 10701 |
| 10508 |
| 10603 |
| 10602 |
| 10506 |
| 10601 |
+-----+
10 rows in set (0.00 sec)
```

2.

```
mysql> SELECT * FROM CUSTOMERS WHERE cname LIKE 's%';
+-----+-----+-----+-----+-----+
| cno  | cname | street          | zip  | phone   |
+-----+-----+-----+-----+-----+
| 3333 | soma  | main st. 54444  | 224  | 24203270 |
| 6666 | santu | main st 61111   | 432  | 5432167  |
+-----+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

3.

```
mysql> SELECT pno,pname FROM PARTS
-> WHERE price < 19.99;
+-----+-----+
| pno   | pname                |
+-----+-----+
| 10506 | land before time 1   |
| 10507 | land before time 2   |
| 10508 | land before time 3   |
| 10509 | land before time 4   |
| 10602 | Bolt                 |
| 10603 | Screw                |
+-----+-----+
6 rows in set (0.00 sec)
```

4.

```
mysql> SELECT ono,cname,shipped
-> FROM CUSTOMERS,ORDERS
-> WHERE shipped IS NULL
-> AND CUSTOMERS.cno = ORDERS.cno;
+-----+-----+-----+
| ono  | cname  | shipped |
+-----+-----+-----+
| 1022 | amina  | NULL   |
| 1035 | charles| NULL   |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

5.

```
mysql> SELECT pname,price FROM PARTS
-> WHERE price = (SELECT MIN(price) FROM PARTS);
+-----+-----+
| pname | price |
+-----+-----+
| Screw | 13.49 |
+-----+-----+
1 row in set (0.00 sec)
```

6.

```
mysql> SELECT pname,price FROM PARTS
-> WHERE price < (SELECT MIN(price) FROM PARTS WHERE pname LIKE "%land before time%");
+-----+-----+
| pname | price |
+-----+-----+
| Screw | 13.49 |
+-----+-----+
1 row in set (0.00 sec)
```


7.

```
mysql> SELECT eno FROM EMPLOYEES
      -> WHERE zip = (SELECT zip FROM ZIPCODES WHERE city = "fort dodge");
+-----+
| eno   |
+-----+
| 1001  |
+-----+
1 row in set (0.00 sec)
```

8.

```
mysql> SELECT ename,hdate FROM EMPLOYEES
      -> WHERE hdate = (SELECT MIN(hdate) FROM EMPLOYEES);
+-----+-----+
| ename | hdate      |
+-----+-----+
| arup  | 1984-01-31 |
+-----+-----+
1 row in set (0.00 sec)
```

9.

```
mysql> SELECT pno,pname,price FROM PARTS
      -> WHERE price > 20.00
      -> ORDER BY pno ASC;
+-----+-----+-----+
| pno   | pname    | price |
+-----+-----+-----+
| 10601 | Nut      | 24.99 |
| 10800 | Driller  | 24.99 |
+-----+-----+-----+
2 rows in set (0.00 sec)
```

10.

```
mysql> SELECT PARTS.pno,pname ,price*quant AS TotalSales  
-> FROM PARTS,(SELECT pno,SUM(qty) quant FROM ODETAILS GROUP BY pno) x  
-> WHERE PARTS.pno=x.pno;
```

pno	pname	TotalSales
10506	land before time 1	125.93
10507	land before time 2	251.86
10508	land before time 3	89.95
10509	land before time 4	287.84
10601	Nut	124.95
10602	Bolt	143.92
10603	Screw	13.49
10800	Driller	49.98

8 rows in set (0.00 sec)

11.

```
mysql> SELECT PARTS.pno,pname,price*quant FROM  
-> PARTS,(SELECT pno,SUM(qty) quant FROM ODETAILS GROUP BY pno) x  
-> WHERE PARTS.pno=x.pno AND  
-> price*quant > 100.53;
```

pno	pname	price*quant
10506	land before time 1	125.93
10507	land before time 2	251.86
10509	land before time 4	287.84
10601	Nut	124.95
10602	Bolt	143.92

5 rows in set (0.00 sec)

12.

```
mysql> UPDATE ZIPCODES  
      -> SET city="parth" WHERE city="columbia";  
Query OK, 1 row affected (0.00 sec)  
Rows matched: 1  Changed: 1  Warnings: 0
```

```
mysql> SELECT * FROM ZIPCODES;
```

zip	city
50302	kansas city
54444	parth
60606	fort dodge
60706	patna
61111	fort hays
61818	delhi
63111	kolkata
65222	diamond
66006	libaral
67226	wichita

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

13.

```
mysql> UPDATE ORDERS  
      -> SET shipped = "2022-09-01" WHERE shipped IS NULL;  
Query OK, 2 rows affected (0.00 sec)  
Rows matched: 2  Changed: 2  Warnings: 0
```

```
mysql> SELECT * FROM ORDERS;
```

ono	cno	eno	recived	shipped
1020	1111	1000	1994-12-10	1994-12-12
1021	1111	1000	1995-01-12	1995-01-15
1022	2222	1001	1997-01-20	2022-09-01
1023	3333	1002	1998-04-13	1998-04-29
1024	4444	1003	1996-03-11	1996-03-13
1025	5555	1004	1996-03-11	1996-03-12
1026	5555	1004	1998-05-31	1998-06-08
1027	8888	1006	1995-05-23	1993-03-23
1028	7777	1007	1984-05-17	1993-12-18
1029	3333	1008	1992-12-13	1993-09-18
1030	2222	1010	1983-04-30	1985-09-17
1031	1000	1011	1993-05-26	1985-04-16
1032	1111	1012	1986-04-15	2005-05-31
1033	9988	1013	2000-04-18	2005-04-18
1034	9988	1014	2005-02-08	2005-02-18
1035	1111	1015	2005-04-18	2022-09-01

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

14.

```
mysql> UPDATE PARTS
  -> SET price = (price*0.9) WHERE price < 24.00;
Query OK, 6 rows affected, 6 warnings (0.00 sec)
Rows matched: 6  Changed: 6  Warnings: 6

mysql> SELECT * FROM PARTS;
+-----+-----+-----+-----+-----+
| pno   | pname                | qoh  | price | olevel |
+-----+-----+-----+-----+-----+
| 10506 | land before time 1   | 200  | 16.19 | 20     |
| 10507 | land before time 2   | 156  | 16.19 | 20     |
| 10508 | land before time 3   | 190  | 16.19 | 20     |
| 10509 | land before time 4   | 60   | 16.19 | 20     |
| 10601 | Nut                  | 300  | 24.99 | 30     |
| 10602 | Bolt                 | 120  | 16.19 | 30     |
| 10603 | Screw                | 140  | 12.14 | 30     |
| 10800 | Driller               | 100  | 24.99 | 30     |
+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```

15.

```
mysql> UPDATE PARTS
  -> SET qoh = (SELECT q FROM ( SELECT MAX(qoh) AS q FROM PARTS) y)
  -> WHERE qoh<100;
Query OK, 1 row affected (0.00 sec)
Rows matched: 1  Changed: 1  Warnings: 0

mysql> SELECT * FROM PARTS;
+-----+-----+-----+-----+-----+
| pno   | pname                | qoh  | price | olevel |
+-----+-----+-----+-----+-----+
| 10506 | land before time 1   | 200  | 17.99 | 20     |
| 10507 | land before time 2   | 156  | 17.99 | 20     |
| 10508 | land before time 3   | 190  | 17.99 | 20     |
| 10509 | land before time 4   | 300  | 17.99 | 20     |
| 10601 | Nut                  | 300  | 24.99 | 30     |
| 10602 | Bolt                 | 120  | 17.99 | 30     |
| 10603 | Screw                | 140  | 13.49 | 30     |
| 10800 | Driller               | 100  | 24.99 | 30     |
+-----+-----+-----+-----+-----+
8 rows in set (0.00 sec)
```