

```
mysql>USE classroom;  
database changed
```

```
mysql>SHOW TABLES;
```

```
+-----+  
| Tables_in_classroom |  
+-----+  
| part                |  
| project              |  
| shipment             |  
| supplier             |  
+-----+
```

```
mysql>TRUNCATE TABLE shipment;  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>TRUNCATE TABLE project;  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>TRUNCATE TABLE part;  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>TRUNCATE TABLE supplier;  
Query OK, 0 rows affected (0.01 sec)
```

```
mysql>INSERT INTO supplier (sup_no, sup_name, status, city) VALUES  
(1, 'Manoj', 11, 'Pune'),  
(2, 'Smarth', 121, 'Mysore'),  
(3, 'tanuj', 131, 'Miami'),  
(4, 'tanu', 141, 'MP'),  
(A12, 'Rajesh', 1060, 'pune'),  
(A22, 'Raj', 100, 'ooty'),  
(B33, 'Kiran', 150, 'Delhi'),  
(C44, 'Nisha', 200, 'Chennai'),  
(D55, 'Vikram', 250, 'Bangalore'),  
(E66, 'Sneha', 300, 'Hyderabad'),  
(F77, 'Rakesh', 350, 'Ahmedabad');
```

```
Query OK, 11 rows affected
```

```
mysql>INSERT INTO part (part_no, part_name, color, weight, city) VALUES  
(PO1, 'Bolt', 'Silver', 0, 'Mumbai'),  
(PO2, 'Nut', 'Black', 0, 'Mysore'),  
(PO3, 'Washer', 'grey', 0, 'Miami'),
```

```
('PO4', 'Rod', 'steel', 2, 'pune'),
('PO5', 'Screw', 'Gold', 1, 'Delhi'),
('PO6', 'Pin', 'Silver', 1, 'Chennai'),
('PO7', 'Bracket', 'Black', 3, 'Bangalore'),
('PO8', 'Clamp', 'Red', 2, 'Hyderabad');
```

Query OK, 8 rows affected

```
mysql>INSERT INTO project (pro_no, pro_name, city) VALUES
('PR01', 'Highway project', 'Mumbai'),
('PR02', 'ROAD CONSTRUCTION', 'Pune'),
('PR03', 'Bridge Construction', 'Delhi'),
('PR04', 'Airport Expansion', 'Chennai'),
('PR05', 'Metro Rail Project', 'Bangalore'),
('PR06', 'Water Supply Scheme', 'Hyderabad');
```

Query OK, 6 rows affected

```
mysql>INSERT INTO shipment (part_no, pro_no, quantity, supp_no) VALUES
('PO1', 'PR01', 210, '1'),
('PO2', 'PR02', 200, '3'),
('PO3', 'PR03', 150, '2'),
('PO4', 'PR04', 180, 'A12'),
('PO5', 'PR05', 220, 'B33'),
('PO6', 'PR06', 140, 'C44');
Query OK, 6 rows affected
```

```
mysql> select * from supplier;
```

sup_no	sup_name	status	city
1	Manoj	11	Pune
2	Smarth	121	Mysore
3	tanuj	131	Miami
4	tanu	141	MP
A12	Rajesh	1060	pune
A22	Raj	100	ooty
B33	Kiran	150	Delhi
C44	Nisha	200	Chennai
D55	Vikram	250	Bangalore
E66	Sneha	300	Hyderabad
F77	Rakesh	350	Ahmedabad

11 rows in set (0.00 sec)

```
mysql> select * from part;
```

part_no	part_name	color	weight	city
PO1	Bolt	Silver	0	Mumbai
PO2	Nut	Black	0	Mysore
PO3	Washer	grey	0	Miami
PO4	Rod	steel	2	pune
PO5	Screw	Gold	1	Delhi
PO6	Pin	Silver	1	Chennai
PO7	Bracket	Black	3	Bangalore
PO8	Clamp	Red	2	Hyderabad

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

```
mysql> select * from project;
```

pro_no	pro_name	city
PR01	Highway project	Mumbai
PR02	ROAD CONSTRUCTION	Pune
PR03	Bridge Construction	Delhi
PR04	Airport Expansion	Chennai
PR05	Metro Rail Project	Bangalore
PR06	Water Supply Scheme	Hyderabad

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

```
mysql> select * from shipment;
```

part_no	pro_no	quantity	supp_no
PO1	PR01	210	1
PO2	PR02	200	3
PO3	PR03	150	2
PO4	PR04	180	A12
PO5	PR05	220	B33
PO6	PR06	140	C44

```
6 rows in set (0.01 sec)
```

```
mysql> create view supplier_pune as select * from supplier where city="pune" or city="Pune";
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> select * from supplier_pune;
```

```
+-----+-----+-----+-----+
| sup_no | sup_name | status | city |
+-----+-----+-----+-----+
| 1      | Manoj    | 11     | Pune |
| A12    | Rajesh   | 1060   | pune |
+-----+-----+-----+-----+
2 rows in set (0.00 sec)
```

```
mysql> drop view supplier_pune;
Query OK, 0 rows affected (0.01 sec)
```

```
mysql> create index idx_supp_no on supplier(sup_no);
```

```
Query OK, 0 rows affected (0.03 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> create index idx_sup_name on supplier(sup_name);
```

```
ERROR 1146 (42S02): Table 'classroom.supplier' doesn't exist
```

```
mysql> create index idx_sup_name on supplier(sup_name);
```

```
Query OK, 0 rows affected (0.03 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> show index from supplier;
```

```
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+
| Table   | Non_unique | Key_name   | Seq_in_index | Column_name | Collation | Cardinality |
Sub_part | Packed    | Null      | Index_type   | Comment     | Index_comment | Visible | Expression |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+
| supplier | 0 | PRIMARY   | 1 | sup_no    | A        | 6 | NULL | NULL |
| BTREE    |   |           |   | NULL      |          |    |      |      |
| supplier | 1 | idx_supp_no | 1 | sup_no    | A        | 6 | NULL | NULL |
| BTREE    |   |           |   | NULL      |          |    |      |      |
| supplier | 1 | idx_sup_name | 1 | sup_name  | A        | 6 | NULL | NULL |
| YES | BTREE    |   |           | YES | NULL      |      |      |      |
+-----+-----+-----+-----+-----+-----+-----+-----+-----+-----+
+-----+-----+-----+-----+-----+
```

```
3 rows in set (0.01 sec)
```

```
mysql> drop index idx_sup_name on supplier;
```

```
Query OK, 0 rows affected (0.01 sec)
```

```
Records: 0 Duplicates: 0 Warnings: 0
```

```
mysql> SELECT sup_no, status
FROM supplier
WHERE city = 'Chennai' AND status > 20;
```

```
+-----+-----+
| sup_no | status |
+-----+-----+
| C44    | 200    |
+-----+-----+
```

```
mysql> SELECT sup_name
FROM supplier
WHERE sup_no NOT IN (
    SELECT supp_no
    FROM shipment
    WHERE part_no = 'PO2'
);
```

```
+-----+
| sup_name |
+-----+
| Manoj    |
| Smarth   |
| tanuj    |
| tanu     |
| Rajesh   |
| Raj      |
| Kiran    |
| Nisha    |
| Vikram   |
| Sneha    |
| Rakesh   |
+-----+
```

```
mysql> SELECT s1.supp_no
FROM shipment s1
GROUP BY s1.supp_no
HAVING NOT EXISTS (
    SELECT part_no
    FROM shipment
    WHERE supp_no = '2'
    EXCEPT
    SELECT part_no
    FROM shipment
```

```
WHERE supp_no = s1.supp_no
);
```

```
| PO3 | PR03 | 150 | 2 |
```

```
mysql>SELECT supp_no
FROM shipment
WHERE part_no = 'PO3';
```

```
+-----+
| supp_no |
+-----+
| 2      |
+-----+
```

```
mysql>SELECT A.supp_no AS Supplier1, B.supp_no AS Supplier2
FROM supplier A
JOIN supplier B
ON A.city = B.city AND A.supp_no < B.supp_no;
```

```
+-----+-----+
| Supplier1 | Supplier2 |
+-----+-----+
| 1        | A12       |
+-----+-----+
```

```
mysql>SELECT part_no
FROM shipment
GROUP BY part_no
HAVING COUNT(DISTINCT supp_no) > 1;
```

empty set 0.1

```
mysql>SELECT s.supp_no, s.supp_name, s.city AS supplier_city,
p.part_no, p.part_name, p.city AS part_city
FROM supplier s
JOIN part p ON s.city = p.city;
```

```
+-----+-----+-----+-----+-----+-----+
| supp_no | supp_name | supplier_city | part_no | part_name | part_city |
+-----+-----+-----+-----+-----+-----+
| 1      | Manoj    | Pune        | PO4    | Rod      | pune     |
| A12    | Rajesh   | pune        | PO4    | Rod      | pune     |
+-----+-----+-----+-----+-----+-----+
```

```
mysql>SELECT part_no, SUM(quantity) AS total_quantity  
FROM shipment  
GROUP BY part_no;
```

part_no	total_quantity
PO1	210
PO2	200
PO3	150
PO4	180
PO5	220
PO6	140