

DBMS

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Supplier Database:

The image displays two screenshots of the MySQL Workbench interface, showing the creation and data insertion for a database named 'Supplier_database'.

Top Screenshot: Creating the Database and Tables

The 'SCHEMAS' panel on the left shows a list of databases, including 'supplier'. The 'SQL File 1*' tab is active, displaying the following SQL script:

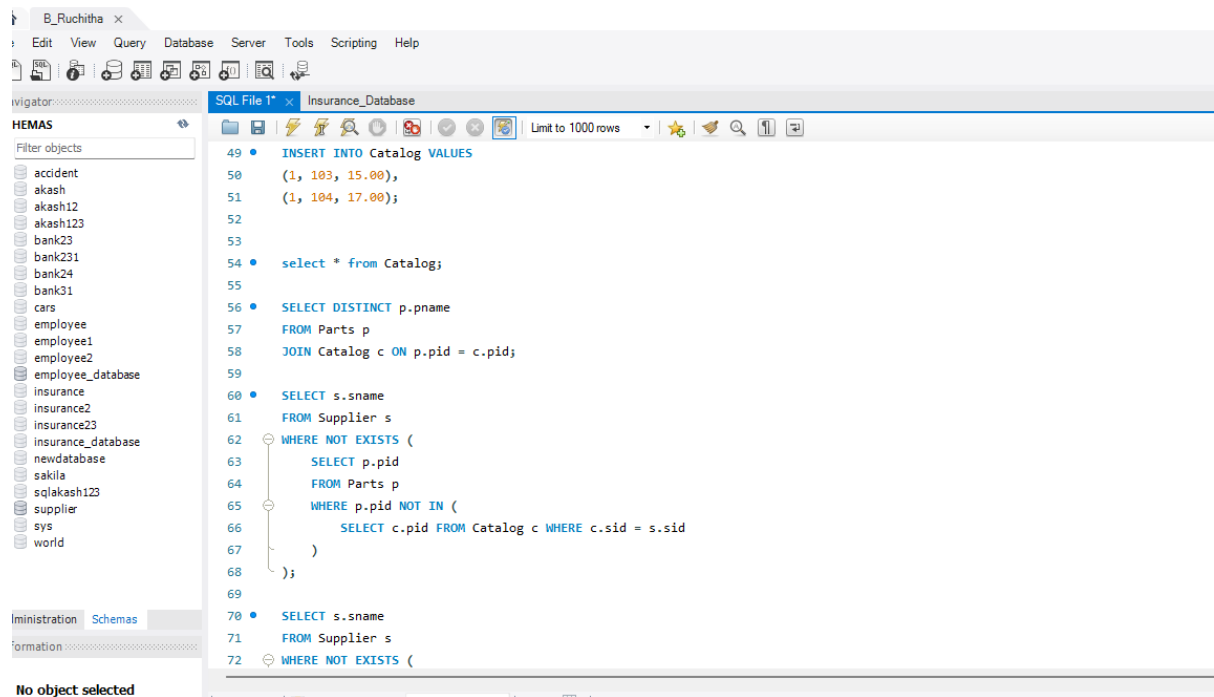
```
1 • create database Supplier_database;
2 • use supplier_database;
3 • CREATE TABLE Supplier (
4     sid INT PRIMARY KEY,
5     sname VARCHAR(50),
6     city VARCHAR(50)
7 );
8
9 • CREATE TABLE Parts (
10    pid INT PRIMARY KEY,
11    pname VARCHAR(50),
12    color VARCHAR(20)
13 );
14
15 • CREATE TABLE Catalog (
16    sid INT,
17    pid INT,
18    cost DECIMAL(10,2),
19    PRIMARY KEY (sid, pid),
20    FOREIGN KEY (sid) REFERENCES Supplier(sid),
21    FOREIGN KEY (pid) REFERENCES Parts(pid)
22 );
23
```

Bottom Screenshot: Inserting Data

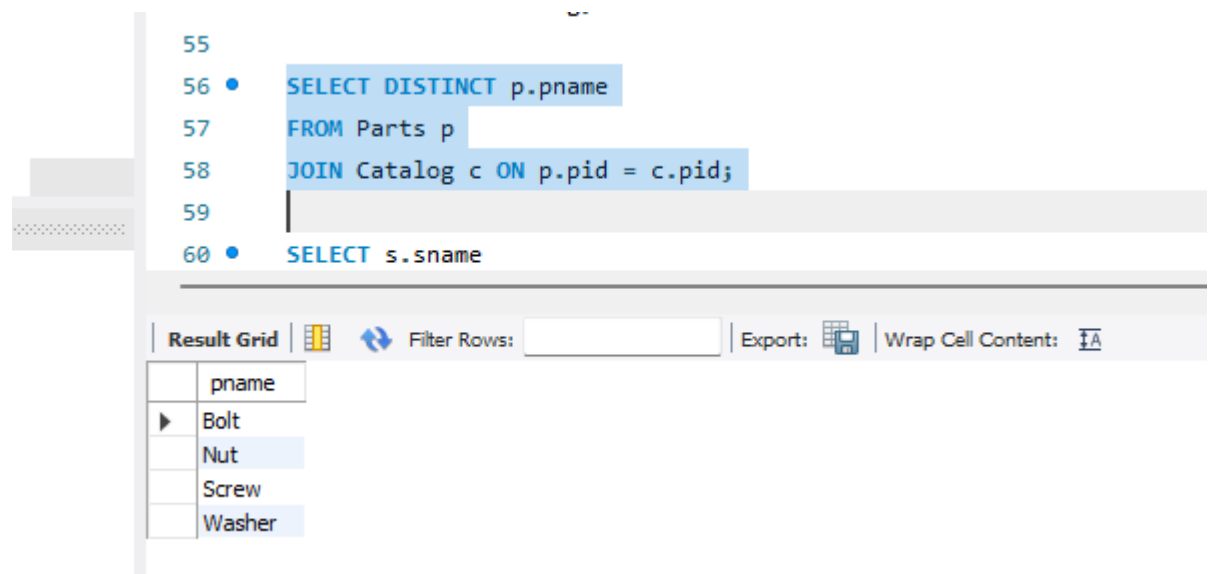
The 'SQL File 1*' tab is active, displaying the following SQL script:

```
25
26 • INSERT INTO Supplier VALUES
27    (1, 'Acme Widget Suppliers', 'London'),
28    (2, 'Best Parts Co', 'Paris'),
29    (3, 'Global Supplies', 'New York');
30
31 • select * from Supplier;
32
33 • INSERT INTO Parts VALUES
34    (101, 'Bolt', 'Red'),
35    (102, 'Nut', 'Green'),
36    (103, 'Screw', 'Red'),
37    (104, 'Washer', 'Blue');
38 • select * from Parts;
39
40
41 • INSERT INTO Catalog VALUES
42    (1, 101, 12.50),
43    (1, 102, 14.00),
44    (2, 101, 10.00),
45    (2, 103, 15.50),
46    (3, 101, 11.00),
47    (3, 104, 16.00);
48
```

The 'SCHEMAS' panel on the left shows a list of databases, including 'supplier'. The 'Administration' tab is selected at the bottom.



OUTPUT:



```

59
60 • SELECT s.sname
61     FROM Supplier s
62     WHERE NOT EXISTS (
63         SELECT p.pid
64         FROM Parts p
65         WHERE p.pid NOT IN (
66             SELECT c.pid FROM Catalog c WHERE c.sid = s.sid
67         )
68     );
69

```





Result Grid   Filter Rows: Export:  Wrap Cell Content: 

	sname
▶	Acme Widget Suppliers

```

68     );
69
70 • SELECT s.sname
71     FROM Supplier s
72     WHERE NOT EXISTS (
73         SELECT p.pid
74         FROM Parts p
75         WHERE p.color = 'Red'
76         AND p.pid NOT IN (
77             SELECT c.pid FROM Catalog c WHERE c.sid = s.sid
78         )
79     );
80
81 • SELECT p.pname

```

Result Grid   Filter Rows: Export:  Wrap Cell Content: 

	sname
▶	Acme Widget Suppliers
	Best Parts Co

```

81 • SELECT p.pname
82 FROM Parts p
83 JOIN Catalog c ON p.pid = c.pid
84 JOIN Supplier s ON s.sid = c.sid
85 WHERE s.sname = 'Acme Widget Suppliers'
86 AND p.pid NOT IN (
87     SELECT c2.pid
88     FROM Catalog c2
89     JOIN Supplier s2 ON s2.sid = c2.sid
90     WHERE s2.sname <> 'Acme Widget Suppliers'
91 );
92
93 • SELECT DISTINCT s.sname

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	pname			
▶	Nut			



```

93 • SELECT DISTINCT s.sname
94 FROM Supplier s
95 JOIN Catalog c ON s.sid = c.sid
96 WHERE c.cost > (
97     SELECT AVG(c2.cost)
98     FROM Catalog c2
99     WHERE c2.pid = c.pid
100 );
101
102
103
104

```

Result Grid		Filter Rows:	Export:	Wrap Cell Content:
	sname			
▶	Acme Widget Suppliers			
	Best Parts Co			

```
104
105 • SELECT p.pname, s.sname, c.cost
106 FROM Catalog c
107 JOIN Supplier s ON s.sid = c.sid
108 JOIN Parts p ON p.pid = c.pid
109 WHERE c.cost = (
110     SELECT MAX(c2.cost)
111     FROM Catalog c2
112     WHERE c2.pid = c.pid
113 );
114
115
116
```

Result Grid   Filter Rows: Export:  Wrap Cell Content: 

	pname	sname	cost
▶	Bolt	Acme Widget Suppliers	12.50
	Nut	Acme Widget Suppliers	14.00
	Washer	Acme Widget Suppliers	17.00
	Screw	Best Parts Co	15.50