✅ Step 1: Create Tables

```
-- Create Suppliers Table
CREATE TABLE Suppliers (
    sid INT PRIMARY KEY,
    sname VARCHAR(50),
    address VARCHAR(60)
);

-- Create Parts Table
CREATE TABLE Parts (
    pid INT PRIMARY KEY,
    pname VARCHAR(50),
    color VARCHAR(20)
);

-- Create Catalog Table
CREATE TABLE Catalog (
    sid INT,
    pid INT,
    cost REAL,
    FOREIGN KEY (sid) REFERENCES Suppliers(sid),
    FOREIGN KEY (pid) REFERENCES Parts(pid)
);
```

✅ Step 2: Insert Sample Data

```
-- Insert data into Suppliers
INSERT INTO Suppliers (sid, sname, address) VALUES
(1, 'Suresh', 'Delhi'),
(2, 'Satish', 'Mumbai'),
(3, 'Anil', 'Pune'),
(4, 'Sandeep', 'Chennai');

-- Insert data into Parts
INSERT INTO Parts (pid, pname, color) VALUES
(101, 'Keyboard', 'Black'),
(102, 'Mouse', 'White'),
(103, 'Monitor', 'Black'),
(104, 'CPU', 'Grey');
```

```
-- Insert data into Catalog
INSERT INTO Catalog (sid, pid, cost) VALUES
(1, 101, 5000),
(2, 102, 1500),
(3, 103, 8000),
(1, 104, 10000),
(4, 101, 4500);
```

1) Find the distinct `pname`s of all parts

```
SELECT DISTINCT pname FROM Parts;
```

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2) Alter the data type of `sname` to `VARCHAR(30)`

```
ALTER TABLE Suppliers MODIFY sname VARCHAR(30);
```

✅ For **MySQL** — use `MODIFY`
✅ For **SQL Server** — use:

```
ALTER TABLE Suppliers ALTER COLUMN sname VARCHAR(30);
```

3) Find the supplier who is supplying part “Keyboard” whose cost is 5000

```
SELECT S.sname
FROM Suppliers S
JOIN Catalog C ON S.sid = C.sid
JOIN Parts P ON C.pid = P.pid
WHERE P.pname = 'Keyboard' AND C.cost = 5000;
```

4) Remove all parts whose name is “Mouse”

```
DELETE FROM Parts WHERE pname = 'Mouse';
```

5) List all suppliers whose name starts with “S” in descending order

```
SELECT * FROM Suppliers
WHERE sname LIKE 'S%'
ORDER BY sname DESC;
```