

UNIVERSITY OF PETROLEUM AND ENERGY STUDIES DEHRADUN

DATABASE SYSTEMS LAB

LAB 5 SQL Constraints

MTECH-COMPUTER SCIENCE ENGINEERING CYBER SECURITY AND FORENSICS

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Title: : To understand and use SQL Sub-Query

Objective: To understand the use of sql subquery.

TASK 1: Create the following table. Supplier-(scode,sname,scity,turnover)
Part-(pcode,weigh,color,cost,sellingprice) Supplier_Part-(scode,pcode,qty)

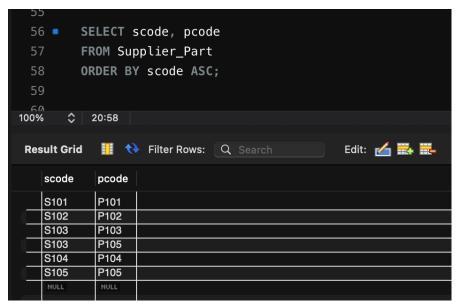
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-- EXPERIMENT-5: SQL SUB-QUERY IMPLEMENTATION
      -- Author: Jigesh Sheoran
      DROP DATABASE IF EXISTS Lab5DB;
      CREATE DATABASE Lab5DB;
      USE Lab5DB;
      SHOW DATABASES;
9 • ○ CREATE TABLE Supplier (
          scode VARCHAR(10) PRIMARY KEY,
          sname VARCHAR(30) NOT NULL,
          scity VARCHAR(30),
          turnover INT
16 • ○ CREATE TABLE Part (
          pcode VARCHAR(10) PRIMARY KEY,
          weigh INT,
          color VARCHAR(10),
           cost DECIMAL(10,2),
           sellingprice DECIMAL(10,2)
24 • ○ CREATE TABLE Supplier_Part (
          scode VARCHAR(10),
           pcode VARCHAR(10),
          qty INT,
           PRIMARY KEY (scode, pcode),
           FOREIGN KEY (scode) REFERENCES Supplier(scode),
          FOREIGN KEY (pcode) REFERENCES Part(pcode)
     ();
```

TASK 2: Populate the table

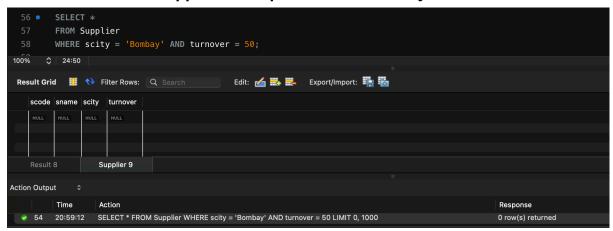
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32
33 • INSERT INTO Supplier VALUES
34 ('S101', 'Sheoran & Sons', 'Bombay', '10000000'),
35 ('S102', 'Hindustan Motors', 'Ahemdabad', '5000000'),
36 ('S103', 'KPMG', 'Abu Dhabi', '7500000'),
37 ('S104', 'Deloitte', 'London', '15000000'),
38 ('S105', 'Oracle', 'New Jersey', '700000000');
39
40 • INSERT INTO Part VALUES
41 ('P101', '25', 'Green', '75', '999'),
42 ('P102', '32', 'Blue', '25', '2199'),
43 ('P103', '78', 'Yellow', '49', '1199'),
44 ('P104', '55', 'Pink', '61', '599'),
45 ('P105', '60', 'White', '80', '1499');
46
47
48 • INSERT INTO Supplier_Part VALUES
49 ('S101', 'P101', '145'),
50 ('S102', 'P102', '89'),
51 ('S103', 'P103', '602'),
52 ('S104', 'P104', '321'),
53 ('S105', 'P105', '11'),
54 ('S103', 'P105', '91');
```

TASK 3: Write appropriate SQL Statement for the following:

1. Get the supplier number and part number in ascending order of supplier number

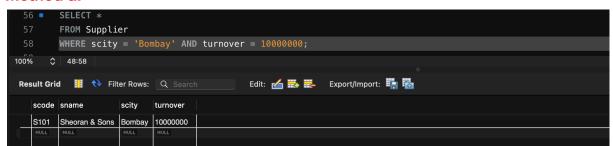


2. Get the details of supplier who operate from Bombay with turnover 50.

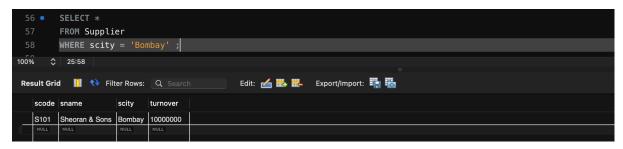


Query returned NULL because we have a supplier who operate from bombay but turnover is not 50. To get a valid result we can modify our query in two ways.

Method a:



Method b:



3. Get the total number of supplier.



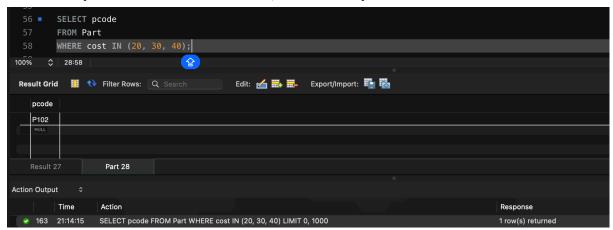
4. Get the part number weighing between 25 and 35.



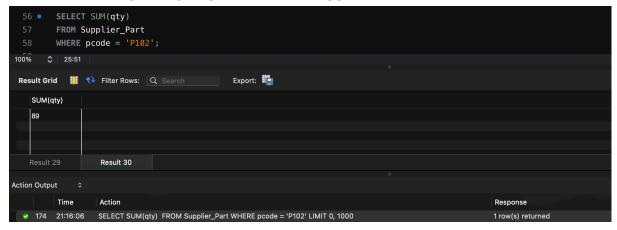
5. Get the supplier number whose turnover is null.



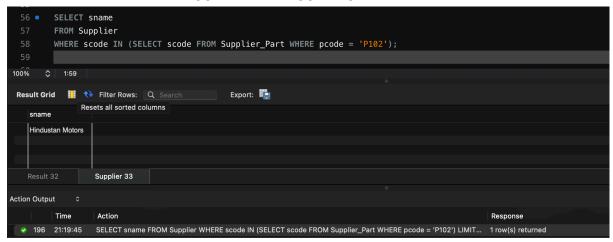
6. Get the part number that cost 20, 30 or 40 rupees.



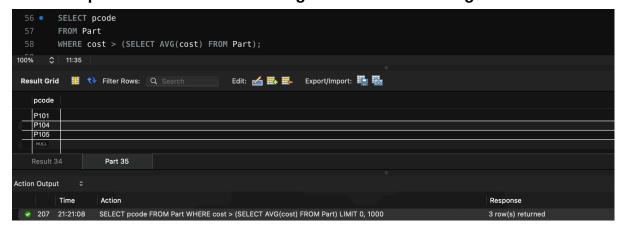
7. Get the total quantity of part 2 that is supplied.



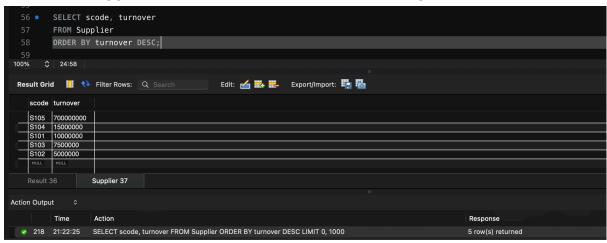
8. Get the name of the supplier who supplies part 2.



9. Get the part number whose cost is greater than the average cost.



10. Get the supplier number and turnover in descending order of turnover.



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