

## Part 0: DB Creation and Population

Use SQL data definition language to create and populate the suppliers-parts-projects database shown in below:

### Suppliers

<u>S#</u>	<u>SNAME</u>	<u>STATUS</u>	<u>CITY</u>
S1	Smith	20	London
S2	Jones	30	Paris
S3	Blake	30	Paris
S4	Clark	20	London
S5	Adams	30	Athens
S6	Johney	20	Ottawa

### SPJ

<u>S#</u>	<u>P#</u>	<u>J#</u>	<u>QTY</u>
S1	P1	J1	200
S1	P1	J4	700
S2	P3	J1	400
S2	P3	J2	200
S2	P3	J3	200
S2	P3	J4	500
S2	P3	J5	600
S2	P3	J6	400
S2	P3	J7	800
S2	P5	J2	100
S3	P3	J1	200
S3	P4	J2	500
S4	P6	J3	300
S4	P6	J7	300
S5	P2	J2	200
S5	P2	J4	100
S5	P5	J5	500
S5	P5	J7	100
S5	P6	J2	200
S5	P3	J4	200
S5	P4	J4	800
S5	P5	J4	400
S5	P6	J4	500

### Parts

<u>P#</u>	<u>PNAME</u>	<u>COLOR</u>	<u>WEIGHT</u>	<u>CITY</u>
P1	Nut	Red	12	London
P2	Bolt	Green	17	Paris
P3	Screw	Blue	17	Rome
P4	Screw	Red	14	London
P5	Cam	Blue	12	Paris
P6	Cog	Red	19	London

### Projects

<u>J#</u>	<u>JNAME</u>	<u>CITY</u>
J1	Scorter	Paris
J2	Display	Rome
J3	OCR	Athens
J4	Console	Athens
J5	RAID	London
J6	EDS	Oslo
J7	Tape	London

## Part 1: PL/SQL

Write a PL/SQL program to list all supplier rows, in supplier number order. Each supplier row should be immediately followed in the listing by all part rows for parts supplied by that supplier, in part number order as follows. Suppliers who do not supply any parts should still be listed. The program should contain a cursor for suppliers and a parameterized cursor for parts.

S#	SNAME	STATUS	CITY
S1	Smith	20	London
...			
S6	Johney	20	Ottawa

  

P#	PNAME	COLOR	WEIGHT	CITY
P1	Nut	Red	12	London
...				
P#	PNAME	COLOR	WEIGHT	CITY

## Part 2: Do Part 1 again using embedded SQL in C

The requirement is the same.

## Part 3: JDBC Programming

Write a java program that uses JDBC to access suppliers-parts-projects database. The program should provide a simple menu to allow the user to either search or manipulate the Suppliers table. For searches, it allows the user to see the whole table or provide some values in some fields to search for part of the table. For manipulations, it allows the user to insert, delete, and update the Suppliers table.

- For Parts 1 and 2, submit the source programs and execution results
- For Part 3, submit the source program and test results of each case.