

## Assignment 4 ERD, Data Insertion, and SQL Queries

This assignment intends to help you understand what you have learned so far.

1. Please create your schema named **assignment4**
2. Please draw the ER diagram for this DB
  - A. 3 DB Tables: Supplier, Part, and Job
  - B. Supplier Table (Primary Key: SID)
    - i. SID: varchar (5) and Not Null
    - ii. SName: varchar (20) and Not Null
    - iii. Status: int and Not Null
    - iv. City: varchar(20) and Not Null
  - C. Part Table (Primary Key: PID)
    - i. PID: varchar (5) and Not Null
    - ii. PName: varchar (20) and Not Null
    - iii. Color: varchar (10) and Not Null
    - iv. Weight: int and Not Null
    - v. City: varchar (20) and Not Null
  - D. Job Table (Primary Key: JID)
    - i. JID: varchar (5) and Not Null
    - ii. JName: varchar (20) and Not Null
    - iii. City: varchar (20) and Not Null
  - E. SPJ Table (Foreign Keys: SID, PID, and JID)
    - i. SID: varchar (5), Null, references Supplier Table (SID)
    - ii. PID: varchar (5), Null, references Part Table (PID)
    - iii. JID: varchar (5), Null, references Job Table (JID)
    - iv. QTY: int and Null

3. Please insert data instances into each DB table shown in the following figures

A. Supplier Table

SID	SName	Status	City
S1	Smith	20	London
S2	Jones	10	Paris
S3	Blake	30	Paris
S4	Clark	20	London
S5	Adams	30	Athens
NULL	NULL	NULL	NULL

B. Part Table

PID	PName	Color	Weight	City
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	Coa	Red	19	London
NULL	NULL	NULL	NULL	NULL

C. Job Table

JID	JName	City
J1	Sorter	Paris
J2	Punch	Rome
J3	Reader	Athens
J4	Console	Athens
J5	Collator	London
J6	Terminal	Oslo
J7	Tape	London
NULL	NULL	NULL

#### D. SPJ Table

Supplier_SID	Part_PID	Job_JID	QTY
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	P1	J4	100
S5	P2	J2	200
S5	P2	J4	100
S5	P3	J4	200
S5	P4	J4	800
S5	P5	J4	400
S5	P5	J5	500
S5	P5	J7	100
S5	P6	J2	200
S5	P6	J4	500
NULL	NULL	NULL	NULL

Once you are done with all the jobs above, please write SQL queries for the following questions.

1. Get supplier names and numbers for all suppliers who supplied P3 and whose name begins with letter A

SName	SID
Adams	S5

2. Get supplier names and numbers for all suppliers whose name begins with letter A and who supplied parts whose name begins with letter S

SName	SID
Adams	S5

3. Get supplier names for suppliers who supplied for J2 (Use a sub query)

SName
Jones
Blake
Adams

4. Get supplier names for suppliers who supplied for jobs in Athens (Use a sub query)

SName
Smith
Jones
Clark
Adams

5. Get part names for parts that are not supplied for J3

PName
Nut
Bolt
Screw
Cam

6. Get supplier numbers for suppliers with status lower than that of S1

SID
S2
NULL

7. Get supplier numbers and names for suppliers whose status is greater than status values of all suppliers in located Paris

SName	SID
NULL	NULL

8. Calculate each supplier's sales quantity and get the sales person's name if the sales person supplies parts more than 1,000 units in total.

SName
Adams
Jones

9. Get job numbers for jobs whose city is first in the alphabetical list of the job cities

JID
J3
J4
NULL

10. Increase the status values of suppliers by 5 who are located in Paris

supplier.Status + 5
15
35

11. Change the name to 'Hammer' of parts that are Red and located in London and whose name was Screw (Use Update & Set operators)

	PID	PName	Color	Weight	City
►	P1	Nut	Red	12	London
	P2	Bolt	Green	17	Paris
	P3	Screw	Blue	17	Rome
	P4	Hammer	Red	14	London
	P5	Cam	Blue	12	Paris
	P6	Cop	Red	19	London
*	NULL	NULL	NULL	NULL	NULL

12. Delete all jobs in Rome and all corresponding part shipments (Use 2 queries)

	JID	JName	City
►	J1	Sorter	Paris
	J3	Reader	Athens
	J4	Console	Athens
	J5	Collator	London
	J6	Terminal	Oslo
	J7	Tape	London
*	NULL	NULL	NULL

	QTY	Supplier_SID	Part_PID	Job_JID
►	200	S1	P1	J1
	700	S1	P1	J4
	400	S2	P3	J1
	200	S2	P3	J3
	500	S2	P3	J4
	600	S2	P3	J5
	400	S2	P3	J6
	800	S2	P3	J7
	200	S3	P3	J1
	300	S4	P6	J3
	300	S4	P6	J7
	100	S5	P1	J4
	100	S5	P2	J4
	200	S5	P3	J4
	800	S5	P4	J4
	400	S5	P5	J4
	500	S5	P5	J5
	100	S5	P5	J7
	500	S5	P6	J4

Due date: By 11:59PM, 02/28/2019

Submission file format: .doc, docx, or .sql