CS 313: Assignment 3

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August 2021

1

```
create user 'lab3'@'localhost' identified by 'iitdh';
create database lab3;
grant all privileges on lab3.* to 'lab3'@'localhost';
```

```
Query OK, 0 rows affected (0.01 sec)

Query OK, 1 row affected (0.00 sec)

Query OK, 0 rows affected (0.00 sec)
```

2

```
use lab3;
create table part (
    part_no int,
    part_name varchar(25),
    color varchar(15),
    weight int,
    primary key (part_no)
);
create table supplier (
    supplier_no int,
    sup\_name varchar(25),
    city varchar (25),
    bank varchar (25),
    primary key (supplier_no)
);
create table shipment (
```

```
shipment_no int,
    part_no int,
    supplier_no int,
    date date,
    quantity int,
    price int,
    primary key (shipment_no),
    foreign key (part_no) references part(part_no),
    foreign key (supplier_no) references supplier(supplier_no)
    );
               Database changed
               Query OK, 0 rows affected (0.02 sec)
               Query OK, 0 rows affected (0.01 sec)
               Query OK, 0 rows affected (0.02 sec)
insert into part values (1, 'screw', 'silver', 12);
insert into supplier values (1, 'Singh_Screw_Co.', 'Delhi', 'SBI');
insert into shipment values (1, 1, 1, '2022-05-15', 100, 10);
               Database changed
               Query OK, 1 row affected (0.01 sec)
               Query OK, 1 row affected (0.01 sec)
               Query OK, 1 row affected (0.00 sec)
-- Parts
insert into part values (2, 'nut', 'black', 16);
insert into part values (3, 'bolt', 'red', 17);
-- Suppliers
insert into supplier values (2, 'Baburao_&_Sons', 'Mumbai', 'ICICI');
insert into supplier values (3, 'Rajesh_Hardware', 'Chennai', 'HDFC');
- Shipments
insert into shipment values (2, 1, 2, '2022-05-21', 200, 20);
insert into shipment values (3, 1, 1, '2021-06-13', 300, 30);
```

3

4

```
insert into shipment values (4, 1, 1, '2018-11-04', 400, 25);
insert into shipment values (5, 2, 1, '2003-02-26', 250, 15);
insert into shipment values (6, 2, 2, '2020-05-18', 650, 10);
insert into shipment values (7, 2, 2, '2019-12-05', 100, 20);
insert into shipment values (8, 2, 2, '2020-03-14', 200, 17);
insert into shipment values (9, 3, 1, '2012-12-30', 130, 20);
insert into shipment values (10, 3, 1, '2019-01-01', 150, 25);
insert into shipment values (11, 3, 1, '2014-11-26', 455, 12);
insert into shipment values (12, 3, 1, '2021-02-22', 120, 20);

— Display Part table
select * from part;

— Display Supplier table
select * from supplier;

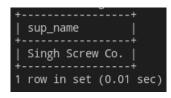
— Display Shipment table
select * from shipment;
```

```
Database changed
Query OK, 1 row affected (0.01 sec)
Query OK, 1 row affected (0.00 sec)
Query OK, 1 row affected (0.01 sec)
Query OK, 1 row affected (0.00 sec)
Query OK, 1 row affected (0.01 sec)
Query OK, 1 row affected (0.00 sec)
```

```
| weight
  part_no | part_name | color
                         silver
            screw
            nut
                         black
                                       16
                         red
            bolt
3 rows in set (0.00 sec)
  supplier_no
                sup_name
                                  | city
                                               bank
                 Singh Screw Co.
                                    Delhi
                                               SBI
                 Baburao & Sons
                                    Mumbai
                                               ICICI
                                               HDFC
                 Rajesh Hardware
                                    Chennai
3 rows in set (0.00 sec)
  shipment_no | part_no | supplier_no |
                                          date
                                                        quantity | price
                                           2022-05-15
                                                              100
            2
3
4
                                           2022-05-21
                                                                       20
                                                              200
                                          2021-06-13
                                                              300
                                                                       30
                                                                       25
15
                                          2018-11-04
                                                              400
                                           2003-02-26
                                                              250
                                           2020-05-18
                                                              650
                                                                       20
17
            7
8
                                           2019-12-05
                                                              100
                                          2020-03-14
                                                              200
            9
                                          2012-12-30
                                                              130
                                                                       20
                                          2019-01-01
                                                              150
                                          2014-11-26
           12
                                          2021-02-22
                                                              120
                                                                       20
12 rows in set (0.00 sec)
```

5

-- a
select distinct sup_name
from supplier
natural join shipment
natural join part
where color = 'red';



-- b
select sup_name, sum(quantity * price) as total
from shipment
natural join supplier
group by sup_name;

-- c
select distinct sup_name
from shipment
natural join supplier;