Practice Problem set # 1

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We will be using the following table.

|  |  |  |
| --- | --- | --- |
| Vehicle | Own |  |
| VRN Ma Mo Color | VRN SSN |  |
|  |  |  |

123  Honda Hawk Red 123 bcd

234  Mazda RX7 Blue 234 abc

345  Ford Taurus Blue 456 def

456  Ford Ranger Green 567 ghi

567  Honda Accord Red 683 def

683  Mazda RX7 Silver 789 abc

789  VW Bug White 901 bcd

890  Suzuki Intruder Black

901  Harley Sportster Black

012 VW Bug Red

Person

SSN Name Addr Phone

abc Dave Birch xxx

bcd Mary Grove yyy

cde Sriram Oak zzz

def Fang Birch www

efg Derek Elm uuu

fgh Joan Elm vvv

ghi Xie Oak sss

hij Gilford Birch ttt

Create Table Query:

1. create table vehicle(VRN int(4) primary key,Ma varchar(20) not null,Mo varchar(20),color varchar(15));
2. create table own(VRN int(6),SSN varchar(10) ,foreign key(VRN) references vehicle(VRN), foreign key(SSN) references person(SSN));
3. create table person(SSN varchar(10) primary key,Name varchar(30),addr varchar(20),phone varchar(20));

Insert Query:

1. insert into vehicle values(123,'honda','hawk','red');
2. insert into person values('abc','dave','birch','xxx');
3. insert into own values('123','abc');

**. First insert all data in vehicle table then in person table and in insert own data into table.**

After creating and inserting run the following query.

Queries:

1. Write a query that returns the Name and Phone of all Persons owning VRN=123.
2. Write a query that returns the Name and Phone of all Persons owning a Ford
3. Write a query that returns the Models and Colors of all vehicles owned by someone on Birch.
4. Write a query to show the VRN and Mo of each owned Vehicle and the Name and Addr of the Person who owns it.
5. Write a query to show the VRN and Mo of each owned Vehicle BY SOMEONE ON 'Birch' and the Name of the Person who owns it. In SQL, write versions of the query that DO and do NOT use a subquery
6. Write a query that returns the VRN and Mo of any vehicle that isn't owned.
7. Write a query that returns pairs of SRNs for **(different)** Persons that live at the same Addr.
8. Write a query that returns pairs of Names for (different) Persons that live at the same Addr.
9. Write a query that lists pairs of Vehicles by Ma and Mo that are owned by the same Person.
10. Write a query that lists pairs of Persons by SSN and Name that own a

Vehicle of the same Ma, Mo and Color

1. Suppose that there was a Price attribute on Vehicle. Write a query in which each car is listed (paired) with each other car that costs less than it does.