Q # 5:

Create database product

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| mysql> use product; |
|  |
| mysql> create table suppliers( |
| -> Sno int(8) primary key, |
| -> Sname varchar(20) not null, |
| -> Status char(20) not null, |
| -> Scity char(30) not null); |
|  |
| mysql> create table Parts( |
| -> PNo int(8) primary key, |
| -> Pname varchar(20) not null, |
| -> Colour varchar(20) not null, |
| -> Weight int(4) not null, |
| -> City char(20) not null); |
|  |
| mysql> create table Project( |
| -> Jno int(8) Primary key, |
| -> Jname char(20) not null, |
| -> Jcity char(20) not null); |
|  |
| mysql> create table Shipment( |
| -> Sno varchar(20) not null, |
| -> Pno int(8) not null, |
| -> Jno int(8) not null, |
| -> Quantity int(8) not null, |
| -> foreign key(Sno) references suppliers(Sno), |
| -> foreign key(Pno) references Parts(Pno), |
| -> Foreign key(Jno) references Project(Jno)); |
|  |
| mysql> insert into suppliers values("101","S1",30,"London"); |
| mysql> insert into suppliers values("102","S2",19,"New York"); |
| mysql> insert into suppliers values("103","S1",22,"Paris"); |
| mysql> insert into suppliers values("104","S2",70,"Los Angeles"); |
| mysql> insert into suppliers values("104","S2",70,"Los Angeles"); |
|  |
| mysql> insert into parts values( "501","P1","Black",16,"Paris"); |
| mysql> insert into parts values( "502","P2","Red",40,"London"); |
| mysql> insert into parts values( "503","P3","Gray",20,"London"); |
| mysql> insert into parts values( "503","P2","Green",60,"Singapore"); |
| mysql> insert into parts values( "505","P2","Black",10,"New York"); |
|  |
| mysql> insert into project values(1001,"J1","London"); |
| mysql> insert into project values(1002,"J2","New York"); |
| mysql> insert into project values(1003,"J3","New York"); |
| mysql> insert into project values(1004,"J4","Singapore"); |
| mysql> insert into project values(1005,"J4","Delhi"); |
|  |
| mysql> insert into shipment values(101,504,1002,250); |
| mysql> insert into shipment values(103,505,1003,100); |
| mysql> insert into shipment values(105,502,1003,500); |
| mysql> insert into shipment values(101,503,1001,300); |
| mysql> insert into shipment values(102,501,1005,750); |
| mysql> insert into shipment values(101,501,1002,100); |
|  |
| (a) Primary Key- Sno in table Suppliers |
| Pno in table Parts |
| Jno in table Project |
|  |
| Foreign Key- Sno in table Shipment |
| Pno in table Shipment |
| Jno in table Shipment |
|  |
| (b) mysql> select Sno from suppliers where scity="Paris" and Status>20; |
|  |
| (c) mysql> Select \* from suppliers where Sno in(select Sno from shipment where Pno in(select Pno from parts where Pname="P2")) Order by sno; |
|  |
| (d) mysql> Select Sname from suppliers where Sno in(Select distinct sno from shipment where Pno in(select Pno from parts where Pname!="P2")); |
|  |
| (e) mysql> select s.Sno, s.Pno, s.Jno, s.Quantity, s.quantity\*p.weight as "Total\_shipment\_weight" from shipment as s, parts as p where s.pno=p.pno; |
|  |
| (f) mysql> Select \* from shipment where quantity between 300 and 750; |
|  |
| (g) mysql> select Pno from parts where weight>16 or pno in(select pno from shipment where sno in(select s.sno from shipment as s, suppliers as su where s.sno=su.sno and su.sname="S2")); |
|  |
| (h) mysql> select city from parts where colour="Red" and Pno in(select pno from shipment where quantity>5); |
|  |
| (i) mysql> select \* from parts where pno in(select Pno from shipment where sno in(select sno from suppliers where Scity="London")); |
|  |
| (j) mysql> select Pno from shipment where sno in(select sno from suppliers where scity="London") and Jno in(Select jno from project where Jcity="London"); |
|  |
| (k) mysql> select count(distinct(Jno)) as "No. of Project Supplied by supplier S1" from shipment where sno in(select sno from suppliers where Sname="S1"); |
|  |
| (l) mysql> select count(\*) from parts where Pno in(Select Pno from shipment where sno in(select Sno from suppliers where sname ="S1")) and Pname="P1"; |