

Q.3 Create the following tables and answer the queries given below:

Customer (CustID, email, Name, Phone, ReferrerID) Bicycle (BicycleID, DatePurchased, Color, CustID, ModelNo) BicycleModel (ModelNo, Manufacturer, Style) Service (StartDate, BicycleID, EndDate)

a) Identify primary and foreign keys. Create the tables and insert at least 5 records in each table.

b) List all the customers who have the bicycles manufactured by manufacturer "Honda".

c) List the bicycles purchased by the customers who have been referred by customer "C1".

d) List the manufacturer of red colored bicycles.

e) List the models of the bicycles given for service.

ANSWER 3

```
create table Customer(  
CustID varchar(10) primary key,  
email varchar(20) not null,  
Name varchar(30) not null,  
Phone varchar(10) not null,  
ReferrerID varchar(10) not null);
```

```
create table Bicycle(  
BicycleID varchar(10) primary key,  
DatePurchased date,  
Color varchar(20),  
CustID varchar(10) not null,  
ModelNo varchar(10),  
foreign key(CustID) references Customer(CustID));
```

```
create table BicycleModel(  
ModelNo varchar(10) primary key,  
Manufacturer varchar(20) not null,  
Style varchar(10) not null);
```

```
create table service(  
BicycleID varchar(10) primary key,  
startdate date,
```

enddate date,  
foreign key(BicycleID) references Bicycle(BicycleID));

alter table Bicycle  
add constraint foreign key(ModelNo) references BicycleModel(ModelNO);

(a)

Primary keys

Customer: CustID

Bicycle: BicycleID

BicycleModel: ModelNo

Service: BicycleID

Foreign keys

Bicycle: CustID, ModelNo

Service: BicycleID

Insert into customer values ('ANK123', 'ankit@gmail.com', 'Ankit', '8825394198', '256');  
Insert into customer values ('SAH564', 'sahil@gmail.com', 'Sahil', '9832015040', '256');  
Insert into customer values ('RAM698', 'ram@gmail.com', 'Ram', '9321456856', '2368');  
Insert into customer values ('SON999', 'sohan@gmail.com', 'sohan', '8965475695', '998');  
Insert into customer values ('PIY699', 'piyush@gmail.com', 'Piyush', '9654789569', '1456');

Insert into BicycleModel values ('9969', 'Hero', 'sprint');  
Insert into BicycleModel values ('9586', 'Honda', 'Classic');  
Insert into BicycleModel values ('6144', 'Suzuki', 'Access');  
Insert into BicycleModel values ('2345', 'Honda', 'mountain');  
Insert into BicycleModel values ('7687', 'Suzuki', 'Classic');

Insert into Bicycle values ('78669', '2019-03-23', 'Red', 'RAN123', '9333');  
Insert into Bicycle value ('12345', '2020-01-29', 'Blue', 'Ran123', '5234');  
Insert into Bicycle valued ('22222', '2018-02-15', 'White', 'Roh698', '2577');  
Insert into Bicycle values ('23654', '2019-12-12', 'black', 'pra564', '8569');  
Insert into Bicycle values ('56743', '2015-03-26', 'Red', 'MUJ699', '9966');

```
Insert into Service values ('78669', '2019-03-23', '2020-03-23');
Insert into Service values ('22222', '2015-03-26', '2016-03-26');
Insert into Service values ('23654', '2019-12-12', '2020-12-12');
Insert into Service values ('12345', '2018-02-15', '2019-02-15');
Insert into Service values ('56743', '2020-01-29', '2021-01-29');
```

(b)

```
select * from customer where CustID in(select CustID from Bicycle
where ModelNo in(select ModelNo from BicycleModel where
Manufacturer="Honda"));
```

(c)

```
select * from Bicycle where CustID in(
select CustID from Customer where
ReferrerID="256");
```

(d) select distinct(Manufacturer) from BicycleModel where  
ModelNo in(select ModelNo from Bicycle  
where color="Red");

(e)

```
select modelNo from Bicycle where BicycleID in(
select bicycleID from Service);
```