به نام خدا

محمدمهدی آقاجانی 9331056

1.

CREATE TABLE CountryLookup (

CountryID INTEGER PRIMARY KEY AUTOINCREMENT ,

Name CHAR (40)

);

CREATE TABLE AddressUsageLookup (

AddressUsageCode INTEGER PRIMARY KEY,

AddressUsageDescription CHAR (40)

);

CREATE TABLE Customer (

CustomerNumber INTEGER PRIMARY KEY,

SocialSecurityNumber CHAR (10),

FirstName CHAR (20),

Surname CHAR (20),

Salutation CHAR (5),

PhoneNumber CHAR (20)

);

CREATE TABLE StateLookup (

StateID INTEGER PRIMARY KEY,

CountryID INTEGER REFERENCES CountryLookup (CountryID),

Name CHAR (40)

);

CREATE TABLE Address (

AddressID INTEGER PRIMARY KEY,

Street CHAR (40),

City CHAR (20),

StateID INTEGER REFERENCES StateLookup (StateID),

CountryID INTEGER REFERENCES CountryLookup (CountryID),

ZipCode CHAR (20)

);

CREATE TABLE CustomerHasAddress (

CustomerNumber INTEGER REFERENCES Customer (CustomerNumber),

AddressID INTEGER REFERENCES Address (AddressID),

AddressUsageCode INTEGER REFERENCES AddressUsageLookup (AddressUsageCode),

PRIMARY KEY (

CustomerNumber,

AddressID

)

);

2.

insert into CountryLookup VALUES(1 , 'Iran');

insert into CountryLookup VALUES(2 , 'Iraq');

insert into CountryLookup VALUES(3 , 'Turkey');

insert into AddressUsageLookup VALUES(1 , NULL);

insert into AddressUsageLookup VALUES(2 , NULL);

insert into AddressUsageLookup VALUES(3 , NULL);

insert into Customer VALUES( 1 ,

'1119331056' ,

'mohammad' ,

'aghajani' ,

'salam' ,

'0912500231');

insert into Customer VALUES( 2 ,

'1119331057' ,

'arman' ,

'pasha' ,

'salam' ,

'0912400231');

insert into Customer VALUES( 3 ,

'1119331032' ,

'iman' ,

'tabrizian' ,

'salam' ,

'0912200231');

INSERT into StateLookup VALUES( 2 , 2 , 'second') ;

INSERT into StateLookup VALUES( 1 , 1 , 'second') ;

INSERT into StateLookup VALUES( 3 , 2 , 'third') ;

INSERT into Address VALUES( 1 , 'azadi' , 'tehran' , 1 , 1 , '0098' ) ;

INSERT into Address VALUES( 2 , 'AL Tahrir' , 'Baqdad' , 2 , 2 , '0097' ) ;

INSERT into Address VALUES( 3 , 'baghesh' , 'Ankara' , 2 , 3 , '0095' ) ;

INSERT INTO CustomerHasAddress VALUES ( 1 , 1 , 1);

INSERT INTO CustomerHasAddress VALUES ( 2 , 2 , 1);

INSERT INTO CustomerHasAddress VALUES ( 3 , 2 , 2);

3.

**Add a column :**

ALTER TABLE Customer ADD COLUMN PersonalID integer ;

**Delete PersonalID Column from customer table :**

ALTER TABLE Customer RENAME TO temp\_table;

CREATE TABLE Customer (

CustomerNumber INTEGER PRIMARY KEY,

SocialSecurityNumber CHAR (10),

FirstName CHAR (20),

Surname CHAR (20),

Salutation CHAR (5),

PhoneNumber CHAR (20)

);

INSERT INTO Customer (

CustomerNumber,

SocialSecurityNumber,

FirstName,

Surname,

Salutation,

PhoneNumber

)

SELECT CustomerNumber,

SocialSecurityNumber,

FirstName,

Surname,

Salutation,

PhoneNumber

FROM temp\_table;

DROP TABLE temp\_table;

نکته : در این بخش نتوانستم از query مستقیم استفاده کنم و با ارور مواجه میشدم و مجبور شدم از این دستور استفاده کنم.

**Drop table :**

DROP TABLE CustomerHasAddress;

نکته: جداولی که ستون های آن ها کلید های خارجی ما بقی جداول هستند نمیتوانند حذف شوند

**Drop database :**

DROP DATABASE company;

4.

SELECT \* from Address WHERE AddressID > 1 ;

SELECT \* from AddressUsageLookup WHERE AddressUsageCode > 1 ;

SELECT \* from CountryLookup WHERE Name = 'Iran' ;

SELECT \* from Customer WHERE CustomerNumber > 1 and Salutation = 'salam' ;

SELECT \* from CustomerHasAddress WHERE AddressUsageCode > 2 ;

SELECT name from StateLookup WHERE StateID > 1 ;

5.

UPDATE Customer SET Salutation = 'by' WHERE Salutation = 'salam' ;

DELETE from Customer WHERE FirstName = 'ali' ;

نکته : اگر داده در جدولی دیگر کلید خارجی باشد حذف نمی شود.

a)

SELECT FirstName , Surname , AddressUsageDescription From (

SELECT \* From (

SELECT FirstName , Surname , AddressUsageCode FROM (

SELECT \* From Customer NATURAL JOIN CustomerHasAddress

)

) NATURAL JOIN AddressUsageLookup

GROUP BY FirstName )

b)

SELECT count(\*) FROM CustomerHasAddress GROUP by CustomerNumber ;

c)

SELECT StateLookup.Name , CountryLookup.Name From (SELECT \* FROM StateLookup , CountryLookup Where CountryLookup.CountryID = StateLookup.CountryID)

d)

SELECT \* From Address WHERE CountryID = 1 and ( StateID = 5 Or StateID = 6 ) ;

e)

SELECT \* from Customer WHERE length(SocialSecurityNumber) = 5 ;

f)

SELECT \* from Customer WHERE substr(SocialSecurityNumber,1 , 1) = '3' or substr(SocialSecurityNumber , 1 , 1 ) = '4' ;

g)

SELECT \* From StateLookup where StateID not in ( SELECT StateID From Address);

h)

SELECT CountryLookup.Name From (SELECT \* from Address , CountryLookup where Address.CountryID = CountryLookup.CountryID) where Street = 23

i)

Select CustomerNumber , FirstName , Surname FROM Customer where FirstName = 'ali' and substr(PhoneNumber , 1 , 4 ) = '0912' ;

j)

SELECT Street From Address where CountryID = 1 ;