/\* 1 Re-create the Customers and Orders tables, enhancing their definition with all primary and foreign keys constraints \*/

--Drop Existing Table

DROP TABLE Orders

DROP TABLE Customers

CREATE TABLE Customers(

CustomerId char(5) not null constraint customer\_id\_pk primary key

, CompanyName varchar(40) not null

, ContactName char(30) not null

, Address varchar(60) null

, City char(15) null

, Phone char(24) null

, Fax char(24) null

,

)

Go

CREATE TABLE Orders(

OrderId int not null constraint order\_id\_pk primary key

, CustomerId char(5) not null constraint customer\_id\_fk foreign key REFERENCES Customers(CustomerId)

, Orderdate datetime null

, Shippeddate datetime null

, Frieght Money null

, Shipname varchar(40) null

, Shipaddress varchar(60) null

, Quantity integer null

)

Go

/\* 2 Using the ALTER TABLE statement, create an integrity constraint that limits the possible values of the quantity column in the Orders table to values between 1 and 30 \*/

Alter table Orders Add Constraint quantity\_ck check (Quantity>1 OR Quantity<30)

Go

/\* 3 With the help of the corresponding system procedures and the Transact-SQL statements CREATE DEFAULT and CREATE RULE,

create the alias data type “Western Countries”. The possible values for the new data type are CA(for California), WA( for

Washington), OR( for Oregon), and NM( for New Mexico). The default value is CA.

Finally, create a table called Regions with the columns City and Country using the new data type for the later \*/

sp\_addType @typename='WesternCountries',@phystype='Varchar(2)',@nulltype='NULL',@owner='Fsddeveloper'

Go

CREATE DEFAULT Default\_Countries

AS 'CA'

Go

CREATE Rule rule\_Countries

AS

@Country IN ('CA','WA','OR','NM')

Go

exec sp\_bindefault 'Default\_Countries','WesternCountries'

Go

exec sp\_bindrule 'rule\_Countries','WesternCountries'

Go

/\* 4 Display all integrity constraints for the Orders table\*/

select \* from information\_schema.table\_constraints where table\_name='Orders';

Go

/\* 5 Delete the primary key of the Customers table. Why isn’t that working? \*/

Alter table Customers Drop constraint customer\_id\_pk

/\*Error(s), warning(s):

Msg 3725, Level 16, State 0, Line 1

The constraint 'customer\_id\_pk' is being referenced by table 'Orders', foreign key constraint 'customer\_id\_fk'.

Msg 3727, Level 16, State 0, Line 1

Could not drop constraint. See previous errors.

There is already a foreign key constraint available in Orders table so only after dropping that we can drop the Primary key

\*/

Go

/\* 6 Delete the integrity constraint defined in Step-2 \*/

Alter table Orders Drop constraint quantity\_ck

Go

/\* 7 Write a function that will return the age of the person given his or her date of birth \*/

CREATE FUNCTION CalculateAge(@in\_dDob datetime)

RETURNS INT

AS

BEGIN

DECLARE @Age int

SELECT @Age=Datediff(year,@in\_dDob,Getdate());

Return @Age

END

Go

--Go

/\* 8 Write a procedure that accepts name and data of birth of the student and inserts the data in the student table with the date computed. The SID should be largest sid in the table +1. \*/

CREATE TABLE Student(

SId Int

, Sname varchar(40)

, Dob datetime

)

Go

CREATE PROC SP\_Student\_Insert(

@in\_sSname varchar(40)

, @in\_dDob datetime

)

AS

BEGIN

Declare @sSname varchar(40)=@in\_sSname, @dDob datetime=@in\_dDob,@iId INT

SELECT @iId=Max(Sid) FROM Student

INSERT INTO Student(Sid,Sname,Dob) Values(ISNULL(@iId,0)+1,@sSname,@dDob)

END

Go