**IST 278 Unit 5 Lab**

Name: Ramon Rodriguez Date: 5/30/2024

# **Lab Instructions**

1. Type your name and the date in the spaces provided.
2. Use the SQL Server Management Studio and the IST278EagleCorp database.
3. Complete all eleven exercises in this lab
4. Upload and submit a completed copy of this lab sheet before the due date.

**Trigger Lab**

# **1. Unit 5 Lab Exercise 1**

Use the IST278EagleCorp database and create a new table named ShippingLabelsXX where the XX are your initials. Create this table with the following columns:

DeliverToName varchar(40),

Address varchar(40),

City varchar(20),

State varchar(2),

PostalCode varchar(10)

Hint: Work page 508 exercise #8 before attempting Lab 1 exercise.

**--- Paste below this line the create table code you wrote and executed for this exercise --**

Paste here

USE [IST278EagleCorp13-1]

GO

DROP TABLE IF EXISTS ShippingLabelsRR;

GO

CREATE TABLE ShippingLabelsRR(

DeliverToName VARCHAR(40),

[Address] VARCHAR(40),

City VARCHAR(20),

[State] CHAR(2),

PostalCode VARCHAR(10)

);

GO

# **2. Unit 5 Lab Exercise 2**

Use the IST278EagleCorp database and create a trigger named TRCustOrderShippingXX where the XX are your initials. Code this trigger so that it automatically inserts the customer’s name, address, city, state, and postal code into the ShippingLabelsXX table that you created in exercise 1. This trigger should fire every time a record is inserted in the CustOrder table.

**---** **Paste below this line the Trigger you wrote and executed for this exercise –**

Paste here

DROP TRIGGER IF EXISTS TRCustOrderShippingRR;

GO

CREATE TRIGGER TRCustOrderShippingRR

ON CustOrder

AFTER INSERT

AS

BEGIN

INSERT INTO ShippingLabelsRR (DeliverToName, Address, City, State, PostalCode)

SELECT

CONCAT(c.CustFirstName, ' ', c.CustLastName) AS DeliverToName,

c.Address,

c.City,

c.State,

c.PostalCode

FROM

Inserted i

JOIN

Customer c ON i.CustomerID = c.CustomerID;

END;

GO

**---** **Paste below this line the completion status messages from executing your create trigger code-**

Paste here

Commands completed successfully.

Completion time: 2024-05-30T17:32:32.6476976-04:00

# **3. Unit 5 Lab Exercise 3**

Use the IST278EagleCorp database and Insert into the Customer Table a new record. **Use your real name for the CustFirstName, and CustLastName**. Use ‘I-300260’ for the CustomerID. An example insert that you can modify, and use is provided below:

INSERT INTO dbo.Customer (CustomerID, CompanyName, CustFirstName, CustLastName, CustTitle, [Address], City, [State], PostalCode, Phone, Fax, EmailAddr)

VALUES

('I-300260', NULL, 'Your First Name', 'Your Last Name', NULL, '222 Happy Street', 'South Land', 'SC', '22222', NULL, NULL, NULL)

**--- Paste below this line the Insert you wrote and executed for this exercise –**

Paste here

INSERT INTO dbo.Customer (CustomerID, CompanyName, CustFirstName, CustLastName, CustTitle, [Address], City, [State], PostalCode, Phone, Fax, EmailAddr)

VALUES

('I-300260', NULL, 'Ramon', 'Rodriguez', NULL, '222 Happy Street', 'South Land', 'SC', '22222', NULL, NULL, NULL)

**---** **Paste below this line the completion status messages from executing your insert table code-**

Paste here

(1 row affected)

Completion time: 2024-05-30T17:35:30.9669589-04:00

# **4. Unit 5 Lab Exercise 4**

Use the IST278EagleCorp database and Insert into the CustOrder Table a new record. Use ‘I-300260’ for the CustomerID. An insert statement that you can use is provided below:

INSERT INTO dbo.CustOrder (OrderID, CustomerID, OrderDate, RequiredDate)

VALUES ('2000000810', 'I-300260', GetDate(), GetDate() + 7)

**---** **Paste below this line the completion status messages from executing the exercise 4 insert table code-**

Paste here

(1 row affected)

(1 row affected)

Completion time: 2024-05-30T18:12:53.6691698-04:00

# **5. Unit 5 Lab Exercise 5**

Use the IST278EagleCorp database and code a select \* from the ShippingLabelsXX table you created in this lab. When you execute this select \* from ShippingLabelsXX you should see a record in the result set. A record should have been inserted into your ShippingLabelsXX table when you ran the exercise 4 insert because it should have caused the trigger you created in exercise 2 to fire and it should have inserted a record in your ShippingLablesXX table.

**--- Paste below this line the select statement you wrote you wrote for exercise 5 –**

Paste here

select \* from ShippingLabelsRR

**---** **Paste below this line the run results from executing the exercise 5 select--**

Paste here

A screenshot of a computer

Description automatically generated

# **6. Unit 5 Lab Exercise 6**

Use the IST278EagleCorp database and create a new table named SalesLeadsXX where the XX are your initials. Create this table with the following columns:

LeadID varchar(10) Primary Key,

CompanyName varchar(40) NULL,

CustFirstName varchar(15) NOT NULL,

CustLastName varchar(20) NOT NULL,

CustTitle varchar(5) NULL,

Address varchar(40) NULL,

City varchar(20) NULL,

State varchar(2) NULL,

PostalCode varchar(10) NULL,

Phone varchar(12) NOT NULL,

Fax varchar (12) NULL,

EmailAddr varchar(50) NULL

**--- Paste below this line the create table code you wrote and executed for this exercise --**

Paste here

DROP TABLE IF EXISTS SalesLeadsRR;

GO

CREATE TABLE SalesLeadsRR (

LeadID VARCHAR(10) PRIMARY KEY,

CompanyName VARCHAR(40) NULL,

CustFirstName VARCHAR(15) NOT NULL,

CustLastName VARCHAR(20) NOT NULL,

CustTitle VARCHAR(5) NULL,

Address VARCHAR(40) NULL,

City VARCHAR(20) NULL,

State CHAR(2) NULL,

PostalCode VARCHAR(10) NULL,

Phone VARCHAR(12) NOT NULL,

Fax VARCHAR(12) NULL,

EmailAddr VARCHAR(50) NULL

);

GO

# **7. Unit 5 Lab Exercise 7**

Use the IST278EagleCorp database and create a trigger named TRStopDupCompNamesXX where the XX are your initials. Code this trigger so that it prohibits duplicate values except for nulls in the SalesLeadsXX table’s CompanyName column. Code this trigger to roll back the statement and return an error message if an INSERT or UPDATE statement creates a duplicate value in the SalesLeadsXX table’s CompanyName column.

Hint: Work page 508 exercise #9 before attempting Lab 7 exercise.

**--- Paste below this line the Trigger you wrote and executed for this exercise –**

Paste here

DROP TRIGGER IF EXISTS TRStopDupCompNamesRR;

GO

CREATE TRIGGER TRStopDupCompNamesRR

ON SalesLeadsRR

AFTER INSERT, UPDATE

AS

BEGIN

IF EXISTS (SELECT CompanyName FROM SalesLeadsRR WHERE CompanyName IS NOT NULL GROUP BY CompanyName HAVING COUNT(CompanyName) > 1)

BEGIN

ROLLBACK TRANSACTION;

RAISERROR ('Duplicate names for company column are not allowed.', 16, 1);

END

END;

GO

# **8. Unit 5 Lab Exercise 8**

Use the IST278EagleCorp database and code and execute an insert statement to insert a record into the SalesLeadsXX table that you created in exercise 6. Use the following values for this insert statement:

**Column Name Value to assign**

LeadID L-0000001

CompanyName NULL

CustFirstName Use Your First Name

CustLastName Use Your Last Name

CustTitle NULL

Address 224 Happy Street

City South Land Park

State SC

PostalCode 22222

Phone 864 222-2222

Fax NULL

EmailAddr NULL

**--- Paste below this line the Insert you wrote and executed for this exercise –**

Paste here

INSERT INTO SalesLeadsRR (LeadID, CompanyName, CustFirstName, CustLastName, CustTitle, Address, City, State, PostalCode, Phone, Fax, EmailAddr)

VALUES ('L-0000001', NULL, 'Ramon', 'Rodriguez', NULL, '224 Happy Street', 'South Land Park', 'SC', '22222', '864 222-2222', NULL, NULL);

**---** **Paste below this line the completion status messages from executing the exercise 8 insert table code-**

Paste here

(1 row affected)

Completion time: 2024-05-30T21:04:24.8444418-04:00

# **9. Unit 5 Lab Exercise 9**

Use the IST278EagleCorp database and code and execute an insert statement to insert a record into the SalesLeadsXX table that you created in exercise 6. Use the following values for this insert statement:

**Column Name Value to assign**

LeadID L-0000002

CompanyName NULL

CustFirstName Bill

CustLastName Smith

CustTitle NULL

Address 333 Green Street

City South Land Park

State SC

PostalCode 22222

Phone 864 222-3333

Fax NULL

EmailAddr NULL

**--- Paste below this line the Insert you wrote and executed for this exercise –**

Paste here

INSERT INTO SalesLeadsRR (LeadID, CompanyName, CustFirstName, CustLastName, CustTitle, Address, City, State, PostalCode, Phone, Fax, EmailAddr)

VALUES ('L-0000002', NULL, 'Bill', 'Smith', NULL, '333 Green Street', 'South Land Park', 'SC', '22222', '864 222-3333', NULL, NULL);

**---** **Paste below this line the completion status messages from executing the exercise 9 insert table code-**

Paste here

(1 row affected)

Completion time: 2024-05-30T21:12:29.1636263-04:00

# **10. Unit 5 Lab Exercise 10**

Use the IST278EagleCorp database and code and execute an insert statement to insert a record into the SalesLeadsXX table that you created in exercise 6. Use the following values for this insert statement:

**Column Name Value to assign**

LeadID L-0000003

CompanyName Peachy Auto

CustFirstName Sue

CustLastName Smith

CustTitle NULL

Address 444 River Road

City South Land Park

State SC

PostalCode 22222

Phone 864 222-4444

Fax NULL

EmailAddr NULL

**--- Paste below this line the Insert you wrote and executed for this exercise –**

Paste here

INSERT INTO SalesLeadsRR (LeadID, CompanyName, CustFirstName, CustLastName, CustTitle, Address, City, State, PostalCode, Phone, Fax, EmailAddr)

VALUES ('L-0000003', 'Peachy Auto', 'Sue', 'Smith', NULL, '444 River Road', 'South Land Park', 'SC', '22222', '864 222-4444', NULL, NULL);

**---** **Paste below this line the completion status messages from executing the exercise 10 insert table code-**

Paste here

(1 row affected)

Completion time: 2024-05-30T21:15:11.0708257-04:00

# **11. Unit 5 Lab Exercise 11**

Use the IST278EagleCorp database and code and execute an insert statement to insert a record into the SalesLeadsXX table that you created in exercise 6. Use the following values for this insert statement:

**Column Name Value to assign**

LeadID L-0000004

CompanyName Peachy Auto

CustFirstName Tom

CustLastName Smith

CustTitle NULL

Address 444 River Road

City South Land Park

State SC

PostalCode 22222

Phone 864 222-4444

Fax NULL

EmailAddr NULL

Note: The trigger you wrote for exercise 7 should stop this insert from happening. You should see the duplicate value message appear when you execute this trigger since the company used on this insert is the same as the company name used in the insert you did for the prior exercise.

**--- Paste below this line the Insert you wrote and executed for this exercise –**

Paste here

INSERT INTO SalesLeadsRR (LeadID, CompanyName, CustFirstName, CustLastName, CustTitle, Address, City, State, PostalCode, Phone, Fax, EmailAddr)

VALUES ('L-0000004', 'Peachy Auto', 'Tom', 'Smith', NULL, '444 River Road', 'South Land Park', 'SC', '22222', '864 222-4444', NULL, NULL);

**---** **Paste below this line the completion status messages from executing the exercise 11 insert table code-**

Paste here

Msg 50000, Level 16, State 1, Procedure TRStopDupCompNamesRR, Line 10 [Batch Start Line 21]

Duplicate names for company column are not allowed.

Msg 3609, Level 16, State 1, Line 22

The transaction ended in the trigger. The batch has been aborted.

Completion time: 2024-05-30T21:16:54.3592392-04:00