**1) Write the code to create a computed column DONOR.DonationTotal that reflects the lifetime contribution dollar amount for each donor.**

CREATE FUNCTION fn\_LifetimeDonation(@ContactID int)

RETURNS MONEY

AS

BEGIN

DECLARE @ret money

SET @ret = (SELECT SUM(d.DonationAmount) AS sum FROM DONATION d GROUP BY d.ContactID HAVING d.ContactID = @ContactID)

RETURN @ret

END

ALTER TABLE DONOR

ADD TotalDonation

AS dbo.fn\_LifetimeDonation(ContactID)

**2) Write the code to CREATE a stored procedure with the following:**

* **Takes in 6 parameters (FirstName, LastName, IncidentName, IncidentTypeName, IncidentDate, IncidentDescr)**
* **Inserts a new row into INCIDENT and CONTACT\_INCIDENT in a single explicit transaction**

CREATE PROCEDURE usp\_Incidents (

@FName varchar(50),

@LName varchar(50),

@IncName varchar(50),

@IncTypeName varchar(50),

@IncDate date,

@IncDescr varchar(50)

)

AS

DECLARE @ContactID int = (SELECT c.ContactID FROM CONTACT c WHERE c.FirstName = @FName, AND c.LastName = @LName)

BEGIN TRAN T1

INSERT INTO INCIDENT (IncidentName, IncidentTypeName, IncidentDate, IncidentDescr) VALUES (@IncName, @IncTypeName, @IncDate date, @IncDescr)

DECLARE @IncidentID int = SCOPE\_IDENTITY()

INSERT INTO CONTACT\_INCIDENT (IncidentID, ContactID) VALUES (@ContactID)

IF @@error <> 0

ROLLBACK TRAN T1

ELSE

COMMIT TRAN T1

EXEC usp\_Incidents @FName = ‘Johnny’, @LName = ‘Johnson’, @IncName = ‘Johnny Stubs His Toe Again, @IncTypeName = ‘minor’, @IncDate = ‘1998-04-23’, @IncDescr = ‘Johnny stubbed his toe on a treadmill’

**3) Write the code to return the first and last names of contacts considered experts in 3+ skills.**

CREATE VIEW Expert\_Names AS

SELECT FirstName, LastName

FROM CONTACT

WHERE (SELECT count(\*) FROM CONTACT\_SKILL cs GROUP BY cs.ContactID) > 2 ;

**4) Write the code to return the 6 most-recent events held at ‘Seattle Waterfront’ that were considered ‘academic support’**

CREATE VIEW Recent\_Events\_Waterfront AS

SELECT EventName

FROM EVENT

WHERE (SELECT TOP 6 e.EventType FROM EVENT e JOIN LOCATION l ON e.LocationID = l.LocationID WHERE l.LocationName = ‘Seattle Waterfront’ ORDER BY e.EventDate asc) = ‘academic support’;