MSFT 115 Assignment 3: Transact-SQL Programming (30%)

Instructions

In this lab you will use MyGuitarShop database to create a stored procedure, two functions, and a trigger. You will prepare a Word document that contains your Transact-SQL statements and screenshots that prove that the programming modules work as intended.

Requirements

1. [10 points] Create a stored procedure named spInsertProduct that inserts a row into the Products table. This stored procedure should accept five parameters. One parameter for each of these columns: CategoryID, ProductCode, ProductName, ListPrice, and DiscountPercent. (Note that ProductID is an identity column.) This stored procedure should set the Description column to an empty string, and it should set the DateAdded column to the current date. If the value for the ListPrice column is a negative number, the stored procedure should raise an error that indicates that this column doesn't accept negative numbers. Similarly, the procedure should raise an error if the value for the DiscountPercent column is a negative number. Code at least two EXEC statements that test this procedure, one with correct parameters, and one that causes an error. Run SELECT query that shows the inserted row(s). In the Word document include all your statements and screenshots from the execution.
2. [10 points] Create two functions:
    a. The first function is named fnDiscountPrice that calculates the discount price of an item in the OrderItems table (discount amount subtracted from item price). To do that, this function should accept one parameter for the item ID, and it should return the value of the discount price for that item.
    b. The second function is named fnItemTotal and calculates the total amount of an item in the OrderItems table (discount price multiplied by quantity). To do that, this function should accept one parameter for the item ID, it should use the fnDiscountPrice function that you just created, and it should return the value of the total for that item.

    Call both functions, and include in the Word document all Transact-SQL statements and execution screenshots.

3. [10 points] Create a trigger named Products_UPDATE that checks the new value for the DiscountPercent column of the Products table. This trigger should raise an appropriate error if the discount percent is greater than 100 or less than 0. If the new discount percent is between 0 and 1, this trigger should modify the new discount percent by multiplying it by 100. That way, a discount percent of .2 becomes 20. Test this trigger with an appropriate UPDATE statement.

Submit

Upload your Word document to the Assignment 3 on Brightspace before the due time.

Evaluation

This assessment is graded out of 30 points.

Learners may receive partial scores or a zero for unacceptable work.