DBAS 4002 – Stored Procedures Exercise

The following exercise walks you through building a series of stored procedures. It is intended to give you practice writing stored procs and building some programmatic aspects into your database.

This exercise offers practice of the following concepts:

* CREATE and ALTER PROCEDURE statements
* Calling stored procedures
* Using stored procs with parameters
* Using TSQL variables and conditional statements
* Using the ISNULL function

# Using the Chinook database, and building on the previous exercise’s series of store procs, complete the following steps:

1. Create a new stored procedure, called **spOrdersByYearAndCountryAndArtistAndAlbum**, which will be used to query the vwOrderData view created in the previous exercise. The stored proc should accept a year as a mandatory parameter, and should also have optional parameters for Country, Artist and Album. The AlbumName parameter should do a wildcard search (using LIKE).

The stored proc should return a result set with the following fields: InvoiceYear, Total, BillingCountry, ArtistName, AlbumName. When executed, the stored proc should return all records that match the combination of whichever parameters the user enters.

1. Test your proc! Add statements to run the stored proc from step 1 four times:
   1. With only a year of 2010 (~422 records returned)
   2. With year 2010 and country of “United Kingdom” (~28 records returned)
   3. With year 2010, country of “Canada” and artist of “Led Zeppelin” (4 records)
   4. With year 2010, country of “Canada” and artist of “Led Zeppelin” and album of “IV” (2 records)
2. Create a new proc named **spOrdersByYearAndCountryAndArtistAndAlbum\_SUMMARY** that is the same as the SP from step 1, except that it aggregates the data to display the Sum Total by year, country, artist and album.
3. Test your proc! Add statements to run the stored proc from step 3 four times, with the same testing values as step 2:
   1. With only a year of 2010 (~235 records returned)
   2. With year 2010 and country of “United Kingdom” (~14 records returned)
   3. With year 2010, country of “Canada” and artist of “Led Zeppelin” (2 records)
   4. With year 2010, country of “Canada” and artist of “Led Zeppelin” and album of “IV” (1 record)
4. Create a new proc named **spOrdersByYear\_SUMMARYByCountryOrArtistOrAlbum** that is the same as the SP from step 3, except that it returns only the invoice year, sum total and the selected country , artist, or year. In other words, the non-selected fields will not be displayed. You can assume users will enter a year and only one other parameter of their choice. If no parameters besides the year is entered, display a printed message similar to “No country, artist or album parameters were entered”.
5. Test your proc! Add statements to run the stored proc from step 5 four times:
   1. With only a year of 2010 (Custom error message should be printed)
   2. With year 2010 and country of “United Kingdom” (1 record, SumTotal of **$297.99**)
   3. With year 2010, artist of “Led Zeppelin” (1 record, SumTotal of **$132.66**)
   4. With year 2010, album of “Big” (1 record, SumTotal of **$26.73**)