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IT FDN 130A Foundations of Databases

Assignment07

SQL User Defined Function

Introduction

SQL or Structured Query Language is a programming language to manage data in a database. SQL is a language used to build the database. In this assignment I am going to talk about User Defined Function or UDF.

UDF

UDF or User Defined Functions are custom functions. There are 2 types of functions: functions that return a table or values and functions that return a single value. You can use UDF to create a certain function or parameter once, store it in the database, and then call upon it multiple times. There are three different ways of classifying user defined functions: Scaler, inline and multi statement. UDFs can be created with schemebinding or not.

SCALAR

This is a user defined function that returns a single value. It could be an integer, date or any other value. They are the simplest to make. Using the CREATE FUNCTION statement you can return the single value you are looking for.

INLINE

An Inline table value function is an expression that can accept parameters, perform an action, and provide as its return value, a table. You can update date in underlying tables. Returns a table based on a single SELECT statement. Inline can return a list of records or individual values- name, gender, age of employees in a department.

MULTI-STATEMENT FUNCTION

Like the Inline function but can contain more than one statement. You can specify how many columns, their names, data types and other specifications. You cannot update date in underlying tables.

Conclusion

There are three types of functions: Scalar, Inline, and multi-statement. There are advantages and disadvantages of using both. You can say the same thing about Stored Procedures. You need to evaluate the work you are doing and the results you want to see when running queries. Return values can be a single scalar value or a set of values. UDFs cannot be altered once they are created. It is a good tool to reduce the amount of data that is sent to the client or customer.