Introduction to SQL Trigger

Summary: in this tutorial, we will give you a brief overview of **SQL trigger**, its advantages and disadvantages.

A SQL trigger is a set of SQL statements stored in the database catalog. A SQL trigger is executed or fired whenever an event associated with a table occurs e.g., insert, update or delete.

A SQL trigger is a special type of stored procedure. It is special because it is not called directly like a stored procedure. The main difference between a trigger and a stored procedure is that a trigger is called automatically when a data modification

event is made against a table whereas a stored procedure must be called explicitly.

It is important to understand SQL trigger's advantages and disadvantages so that you can use it appropriately. In the following sections, we will discuss about the advantages and disadvantages of using SQL triggers.

Advantages of using SQL triggers

- SQL triggers provide an alternative way to check the integrity of data.
- SQL triggers can catch errors in business logic in the database layer.
- SQL triggers provide an alternative way to run scheduled tasks. By using SQL triggers, you don't have to wait to run the scheduled tasks because the triggers are invoked automatically *before* or *after* a change is made to the data in the tables.
- SQL triggers are very useful to audit the changes of data in tables.

Disadvantages of using SQL triggers

- SQL triggers only can provide an extended validation and they cannot replace all the validations. Some simple validations have to be done in the application layer. For example, you can validate user's inputs in the client side by using JavaScript or in the server side using server side scripting languages such as JSP, PHP, ASP.NET, Perl, etc.
- SQL triggers are invoked and executed invisibly from client-applications therefore it is difficult to figure out what happen in the database layer.
- SQL triggers may increase the overhead of the database server.

Triggers or stored procedures? It is recommended that if you have no way to get the work done with stored procedure, think

about SQL trigger.

In the next tutorials, we will show how triggers work in MySQL and how to create triggers for your databases.

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