

SQL Server Tutorial

Part 92 - DDL Triggers in SQL Server

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In this session we will learn

- DDL Triggers in SQL Server

Link to Dot Net Basics, ASP.NET, C#, ADO.NET and SQL Server video series

<http://www.youtube.com/user/kudvenkat/playlists>

Suggested Videos

Part 89 - Intersect operator in SQL Server

Part 90 - Difference between union intersect and except in SQL Server

Part 91 - Cross apply and outer apply in SQL Server

DDL Triggers in SQL Server

If you are in need of the DVD with all the videos and PPT's, please visit
<http://pragimtech.com/order.aspx>

In SQL Server there are 4 types of triggers

1. DML Triggers - Data Manipulation Language. Parts 43 to 47 (SQL Server Tutorial)
2. DDL Triggers - Data Definition Language
3. CLR triggers - Common Language Runtime
4. Logon triggers

What are DDL triggers

DDL triggers fire in response to DDL events - CREATE, ALTER, and DROP (Table, Function, Index, Stored Procedure etc...). For the list of all DDL events please visit
<https://msdn.microsoft.com/en-us/library/bb522542.aspx>

Certain system stored procedures that perform DDL-like operations can also fire DDL triggers.

Example - sp_rename system stored procedure

DDL Triggers in SQL Server

What is the use of DDL triggers

- If you want to execute some code in response to a specific DDL event
- To prevent certain changes to your database schema
- Audit the changes that the users are making to the database structure

DDL trigger Syntax

```
CREATE TRIGGER [Trigger_Name]
ON [Scope (Server|Database)]
FOR [EventType1, EventType2, EventType3, ...],
AS
BEGIN
    -- Trigger Body
END
```

DDL triggers scope : DDL triggers can be created in a specific database or at the server level

DDL Triggers Example

This trigger fires whenever a table is created

```
-- Trigger that fires in response to a single DDL event
CREATE TRIGGER trMyFirstTrigger
ON Database
FOR CREATE_TABLE
AS
BEGIN
    Print 'New table created'
END
```

This trigger fires whenever a table is created, altered or dropped

```
-- Trigger that fires in response to a multiple DDL
-- events
ALTER TRIGGER trMyFirstTrigger
ON Database
FOR CREATE_TABLE, ALTER_TABLE, DROP_TABLE
AS
BEGIN
    Print 'You just created, modified or deleted a table'
END
```

DDL Triggers in SQL Server

```
-- DDL trigger to prevent users from creating,  
-- altering or dropping tables  
ALTER TRIGGER trMyFirstTrigger  
ON Database  
FOR CREATE_TABLE, ALTER_TABLE, DROP_TABLE  
AS  
BEGIN  
    Rollback  
    Print 'You cannot create, alter or drop a table'  
END
```

DDL Triggers in SQL Server

Certain system stored procedures that perform DDL-like operations can also fire DDL triggers

```
CREATE TRIGGER trRenameTable
ON DATABASE
FOR RENAME
AS
BEGIN
    Print 'You just renamed something'
END
```

The trigger will be fired when ever you rename a database object using **sp_rename** system stored procedure

```
-- Renaming table - Fires the trigger
sp_rename 'TestTable', 'NewTestTable'

-- Renaming table column - Fires the trigger
sp_rename 'NewTestTable.Id' , 'NewId', 'column'
```

Additional Resources

PRAGIM Home Page:

www.PragimTech.com

Resources:

C#, ADO.NET, ASP.NET, SQL Server & MVC youtube Playlists

<http://www.youtube.com/user/kudvenkat/playlists>

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