

SQL Server Tutorial

Part 95 - Audit table changes

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In this session we will learn

- How to audit table changes in SQL Server using a DDL trigger

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 92 - DDL Triggers in SQL Server

Part 93 - Server-scoped DDL triggers

Part 94 - SQL Server DDL trigger execution order

Audit Table Changes 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>

DatabaseName	TableName	EventType	LoginName	SQLCommand	AuditDateTime
SampleDB	MyTable	CREATE_TABLE	VENKAT-PC\Tan	Create Table MyTa	2015-09-11 16:02:24.240
SampleDB	MyTable	DROP_TABLE	VENKAT-PC\Tan	Drop Table MyTabl	2015-09-11 16:02:57.430
SampleDB	MyTable	CREATE_TABLE	VENKAT-PC\Tan	Create Table MyTa	2015-09-11 16:06:07.037
SampleDB	MyTable	ALTER_TABLE	VENKAT-PC\Tan	Alter Table MyTabl	2015-09-11 16:06:11.610

EventData() function returns event data in XML format

```
<EVENT_INSTANCE>
  <EventType>CREATE_TABLE</EventType>
  <PostTime>2015-09-11T16:12:49.417</PostTime>
  <ServerName>VENKAT-PC</ServerName>
  <LoginName>VENKAT-PC\Tan</LoginName>
  <DatabaseName>SampleDB</DatabaseName>
  <ObjectName>MyTable</ObjectName>
  <TSQLCommand>
    <CommandText>
      Create Table MyTable(Id int,Name nvarchar(50),Gender nvarchar(50))
    </CommandText>
  </TSQLCommand>
</EVENT_INSTANCE>
```

Audit Table Changes in SQL Server

```
CREATE TRIGGER tr_AuditTableChanges
ON ALL SERVER
FOR CREATE_TABLE, ALTER_TABLE, DROP_TABLE
AS
BEGIN
    DECLARE @EventData XML
    SELECT @EventData = EVENTDATA()

    INSERT INTO SampleDB.dbo.TableChanges
    (DatabaseName, TableName, EventType, LoginName, SQLCommand, AuditDateTime)
    VALUES
    (
        @EventData.value('(/EVENT_INSTANCE/DatabaseName)[1]', 'varchar(250)'),
        @EventData.value('(/EVENT_INSTANCE/ObjectName)[1]', 'varchar(250)'),
        @EventData.value('(/EVENT_INSTANCE/EventType)[1]', 'nvarchar(250)'),
        @EventData.value('(/EVENT_INSTANCE/LoginName)[1]', 'varchar(250)'),
        @EventData.value('(/EVENT_INSTANCE/TSQLCommand)[1]', 'nvarchar(2500)'),
        GetDate()
    )
END
```

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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