

Part 32 – Multi-Statement Table Valued Functions

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In this session we will learn

- Creating Multi-Statement Table Valued Function
- Difference between inline and multi-statement Table Valued Functions

Pre-requisite

Part 30 – User Defined Functions

Part 31 – Inline Table Valued Functions

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Multi-Statement Table Valued Functions

Multi statement table valued functions are very similar to Inline Table valued functions, with a few differences.

Id	Name	DateOfBirth	Gender	DepartmentId
1	Sam	1980-12-30 00:00:00.000	Male	1
2	Pam	1982-09-01 12:02:36.260	Female	2
3	John	1985-08-22 12:03:30.370	Male	1
4	Sara	1979-11-29 12:59:30.670	Female	3
5	Todd	1978-11-29 12:59:30.670	Male	1

Id	Name	DOB
1	Sam	1980-12-30
2	Pam	1982-09-01
3	John	1985-08-22
4	Sara	1979-11-29
5	Todd	1978-11-29

```
--Inline Table Valued Function
Create Function fn_ILTVF_GetEmployees()
Returns Table
as
Return (Select Id, Name, Cast(DateOfBirth as Date) as DOB From tblEmployees)
```

```
--Multi-statement Table Valued Function
Create Function fn_MSTVF_GetEmployees()
Returns @Table Table (Id int, Name nvarchar(20), DOB Date)
as
Begin
    Insert into @Table
    Select Id, Name, Cast(DateOfBirth as Date) From tblEmployees

    Return
End
```

Differences

1. In an Inline Table Valued function, the RETURNS clause cannot contain the structure of the table, the function returns. Where as, with the multi-statement table valued function, we specify the structure of the table that gets returned
2. Inline Table Valued function cannot have BEGIN and END block, where as the multi-statement function can have.
3. Inline Table valued functions are better for performance, than multi-statement table valued functions. If the given task, can be achieved using an inline table valued function, always prefer to use them, over multi-statement table valued functions.
4. It's possible to update the underlying table, using an inline table valued function, but not possible using multi-statement table valued function.

Reason for improved performance of an inline table valued function:

Internally, SQL Server treats an inline table valued function much like it would a view and treats a multi-statement table valued function similar to how it would a stored procedure.

Additional Resources

- PRAGIM Home Page:

- <http://www.PragimTech.com>

- Resources:

- ASP.NET Interview Questions
 - <http://www.VenkatASPInterview.Blogspot.com>
 - C# Interview Questions
 - <http://www.VenkatCSharpInterview.Blogspot.com>

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