

## Part 20 - Stored procedure output parameters or return values

Venkat

PRAGIM Technologies

[kudvenkat@gmail.com](mailto:kudvenkat@gmail.com)

<http://csharp-video-tutorials.blogspot.com>

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# In this session we will learn

- Understand what are stored procedure return values
- Difference between stored procedure return values and output parameters
- When to use output parameters over return values

## **Pre-requisite:**

Part 18 – Stored procedures in SQL Server

Part 19 – Stored procedures with output parameters

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# Output Parameters or Return Values

Whenever, you execute a stored procedure, it returns an integer status variable. Usually, zero indicates success, and non-zero indicates failure.

Id	Name	Gender	DepartmentId
1	Sam	Male	1
2	Ram	Male	1
3	Sara	Female	3
4	Todd	Male	2
5	John	Male	3
6	Sana	Female	2
7	James	Male	1
8	Rob	Male	2
9	Steve	Male	1
10	Pam	Female	2

```
Create Procedure spGetTotalCountOfEmployees1
@TotalCount int output
as
Begin
    Select @TotalCount = COUNT(ID) from tblEmployee
End
```

```
Declare @TotalEmployees int
Execute spGetTotalCountOfEmployees @TotalEmployees Output
Select @TotalEmployees
```

```
Create Procedure spGetTotalCountOfEmployees2
as
Begin
    return (Select COUNT(ID) from Employees)
End
```

```
Declare @TotalEmployees int
Execute @TotalEmployees = spGetTotalCountOfEmployees2
Select @TotalEmployees
```

So, we are able to achieve what we want, using output parameters as well as return values.

Now, let's look at example, where return status variables cannot be used, but Output parameters can be used.

# Output Parameters or Return Values

Id	Name	Gender	DepartmentId
1	Sam	Male	1
2	Ram	Male	1
3	Sara	Female	3
4	Todd	Male	2
5	John	Male	3
6	Sana	Female	2
7	James	Male	1
8	Rob	Male	2
9	Steve	Male	1
10	Pam	Female	2

```
Create Procedure spGetNameById1
@Id int,
@Name nvarchar(20) Output
as
Begin
    Select @Name = Name from tblEmployee Where Id = @Id
End
```

```
Declare @EmployeeName nvarchar(20)
Execute spGetNameById1 3, @EmployeeName out
Print 'Name of the Employee = ' + @EmployeeName
```

```
Create Procedure spGetNameById2
@Id int
as
Begin
    Return (Select Name from tblEmployee Where Id = @Id)
End
```

```
Declare @EmployeeName nvarchar(20)
Execute @EmployeeName = spGetNameById2 1
Print 'Name of the Employee = ' + @EmployeeName
```

Executing spGetNameById2 returns an error stating 'Conversion failed when converting the nvarchar value 'Sam' to data type int.'

# Output Parameters or Return Values

Id	Name	Gender	DepartmentId
1	Sam	Male	1
2	Ram	Male	1
3	Sara	Female	3
4	Todd	Male	2
5	John	Male	3
6	Sana	Female	2
7	James	Male	1
8	Rob	Male	2
9	Steve	Male	1
10	Pam	Female	2

```
Create Procedure spGetNameById1
@Id int,
@Name nvarchar(20) Output
as
Begin
    Select @Name = Name from tblEmployee Where Id = @Id
End
```

```
Declare @EmployeeName nvarchar(20)
Execute spGetNameById1 3, @EmployeeName out
Print 'Name of the Employee = ' + @EmployeeName
```

```
Create Procedure spGetNameById2
@Id int
as
Begin
    Return (Select Name from tblEmployee Where Id = @Id)
End
```

```
Declare @EmployeeName nvarchar(20)
Execute @EmployeeName = spGetNameById2 1
Print 'Name of the Employee = ' + @EmployeeName
```

Executing spGetNameById2 returns an error stating 'Conversion failed when converting the nvarchar value 'Sam' to data type int.'

# Output Parameters or Return Values

Return Staus Value	Output Parameters
Only Integer Datatype	Any Datatype
Only one value	More than value
Use to convey success or failure	Use to return values like name, count etc..

# 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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