

SQL Server Tutorial

Part 91 - Cross Apply and Outer Apply in SQL Server

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In this session we will learn

- Cross apply and Outer apply 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 88 - Difference between except and not in SQL Server

Part 89 - Intersect operator in SQL Server

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

Cross apply & Outer apply 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>

Department Table		Employee Table				
Id	DepartmentName	Id	Name	Gender	Salary	DepartmentId
1	IT	1	Mark	Male	50000	1
2	HR	2	Mary	Female	60000	3
3	Payroll	3	Steve	Male	45000	2
4	Administration	4	John	Male	56000	1
5	Sales	5	Sara	Female	39000	2

DepartmentName	Name	Gender	Salary
IT	Mark	Male	50000
Payroll	Mary	Female	60000
HR	Steve	Male	45000
IT	John	Male	56000
HR	Sara	Female	39000

DepartmentName	Name	Gender	Salary
IT	Mark	Male	50000
IT	John	Male	56000
HR	Steve	Male	45000
HR	Sara	Female	39000
Payroll	Mary	Female	60000
Administration	NULL	NULL	NULL
Sales	NULL	NULL	NULL

- The **APPLY** operator introduced in SQL Server 2005, is used to join a table to a table-valued function
- The Table Valued Function on the right hand side of the APPLY operator gets called for each row from the left (also called outer table) table
- **Cross Apply** returns only matching rows (semantically equivalent to Inner Join)
- **Outer Apply** returns matching + non-matching rows (semantically equivalent to Left Outer Join). The unmatched columns of the table valued function will be set to NULL

Cross Apply Example

Department Table

Id	DepartmentName
1	IT
2	HR
3	Payroll
4	Administration
5	Sales

Employee Table

Id	Name	Gender	Salary	DepartmentId
1	Mark	Male	50000	1
2	Mary	Female	60000	3
3	Steve	Male	45000	2
4	John	Male	56000	1
5	Sara	Female	39000	2

`Select D.DepartmentName, E.Name, E.Gender, E.Salary
from Department D
Cross Apply fn_GetEmployeesByDepartmentId(D.Id) E`

DepartmentName	Name	Gender	Salary
IT	Mark	Male	50000
Payroll	Mary	Female	60000
HR	Steve	Male	45000
IT	John	Male	56000
HR	Sara	Female	39000

Outer Apply Example

Department Table

Id	DepartmentName
1	IT
2	HR
3	Payroll
4	Administration
5	Sales

Employee Table

Id	Name	Gender	Salary	DepartmentId
1	Mark	Male	50000	1
2	Mary	Female	60000	3
3	Steve	Male	45000	2
4	John	Male	56000	1
5	Sara	Female	39000	2



```
Select D.DepartmentName, E.Name, E.Gender, E.Salary  
from Department D  
Outer Apply fn_GetEmployeesByDepartmentId(D.Id) E
```



DepartmentName	Name	Gender	Salary
IT	Mark	Male	50000
IT	John	Male	56000
HR	Steve	Male	45000
HR	Sara	Female	39000
Payroll	Mary	Female	60000
Administration	NULL	NULL	NULL
Sales	NULL	NULL	NULL

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>

Code samples and text version of all the videos on my blog

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