

* Looking With Stored Procedures in ADO .net?

→ When We Work With Parameterized Queries in ADO .net We find following drawbacks.

1. In Parameterized Query though Query Compilation result stored in cache. Cache will have limited Memory and cache is Maintained using LRU (Least Recently used) Algorithm. So, After few requests cache Result will be deleted.
2. Queries do not provide reusability facility.

To Overcome these drawbacks We used stored procedures.

* Stored procedure:-

→ A Stored Procedure is a database object. Which stores pre compiled set of queries.

Advantages Using Stored Procedures:-

1. As Stored procedure will store queries with pre-compilation. Unnecessary compilation will be avoided. Which will reduce burden on the database and will improve application Performance.
2. Stored procedures will provide reusability facility.

3. There is no possibility of sql injection attacks.

Example to create a stored procedure without Parameters:-

Syntax:-

```
Create Procedure ProcedureName  
As  
Begin  
    Statement 1  
    Statement 2  
End
```

Creating stored procedure in sql server:-

→ Goto sql server take a new query window
type the following code.

Syntax:-

```
Create Procedure Delete Emp
```

```
As
```

```
Begin
```

```
    Delete Empdetails Where EmpId=111
```

```
End
```

→ Click on Execute button this will create a stored procedure Delete Emp

→ To Execute the stored procedure Type following.

* Execute Delete Emp

* Exec Delete Emp

Calling the stored procedure from C# Windows Forms Application :-

Delete

Code

using System.Data.SqlClient;

Private void btnDelete_Click(object sender, EventArgs e)

{

String sqlConString = "Server = ; User Id = ;

SqlConnection Con = new SqlConnection(sqlConString);

Con.Open();

SqlCommand Cmd;

Cmd = new SqlCommand("deleteEmp", Con);

Cmd.CommandType = CommandType.StoredProcedure;

int Rows = Cmd.ExecuteNonQuery();

Con.Close();

MessageBox.Show(Rows + "Record(s) deleted");

}

Working With parameters With stored procedure :-

Syntax :-

Create Procedure ProcedureName

Param 1 data-type[(size)], Param 2 data-type[(size)], ...

AS

Begin

stmt
stmt

End

Code to Create stored Procedure

Create Procedure DeleteEmp1

@PEmpId int

AS

begin

Delete Emp details Where EmpId = @PEmpId

End;

* To Execute a stored procedure at database side
He can use following command :-

Exec deleteEmp1 108

Example to call stored procedure With parameters
from front end.

Enter EmpId

Code

Using system.data.SqlClient;

Private void btnDelete_Click (Object sender, EventArgs e)

{

String SqlConnectionString = "Server = ; User Id = ;"

SqlConnection con = new SqlConnection (SqlConnectionString);

con.Open();

SqlCommand cmd;

cmd = new SqlCommand ("delete Emp1", con);

cmd.CommandType = CommandType.StoredProcedure;

```
Sql parameter p1 = new sql parameter ("@pEmpId",  
                                         SqlDbType.Int);
```

```
p1.Value = txtEmpId.Text;
```

```
cmd.Parameters.Add(p1);
```

```
Int Rows = cmd.ExecuteNonQuery();
```

```
con.close();
```

```
Message box.show (Rows + " Record(s) deleted");  
}
```