

ADO.NET

What is ADO.NET?

ADO.NET is not a different technology. In simple terms, we can think of ADO.NET, as a set of **classes (Framework), that can be used to interact with data sources like Databases and XML files.** This data can, then be consumed in any.NET application. **ADO stands for Microsoft ActiveX Data Objects.**

The following are, a few of the different types of.NET applications that use ADO.NET to connect to a database, execute commands, and retrieve data.

- ASP.NET Web Applications
- Windows Applications
- Console Applications

Dot Net Data Providers:

- Data Provider for SQL Server-System.Data.SqlClient
- Data Provider for Oracle - System.Data.OracleClient
- Data Provider for OLEDB-System.Data.OleDb
- Data Provider for ODBC-System.Data.Odbc

All the required classes are residing inside the Namespaces.

Steps

1. Need to established an **SqlConnection con**.
2. Need an **SqlCommand cmd**, with the connection object **con**.
3. Need to open the connection
4. Need **ExecuteReader** that will execute the **SqlCommand** and retrieve the data. This will return the data as a SQL data format. So, we may need an **SqlDataReader** object get the data in the for of datatable.
5. Do the work/ create Dataset/ etc.
6. Close Connection
7. Dispose the connection

```
using System.Data.SqlClient;
```

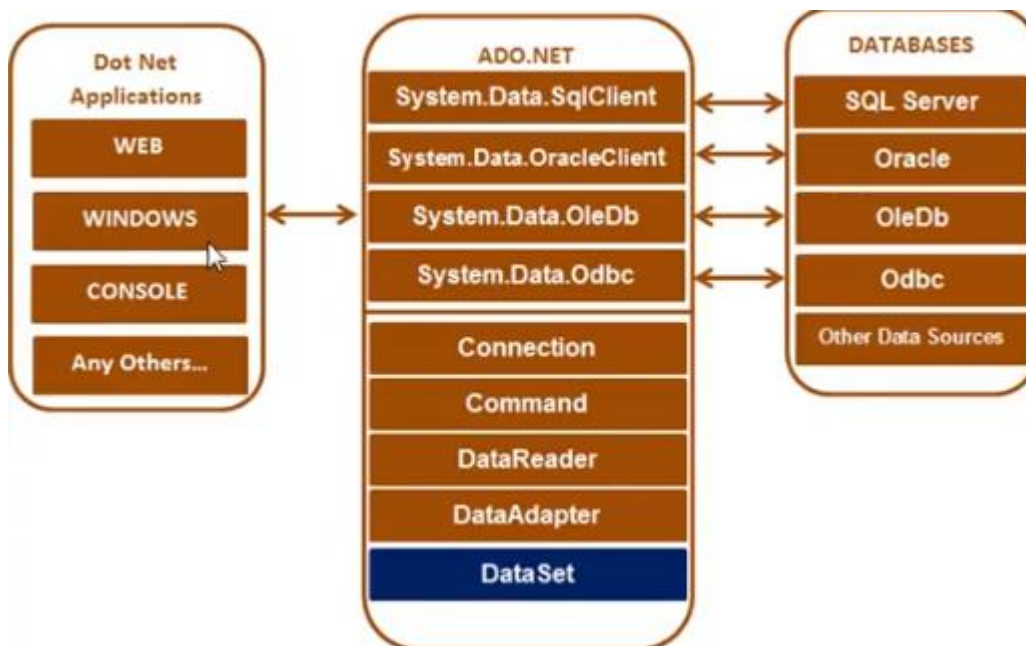
```
        SqlConnection con = new SqlConnection("data source=.;  
database=MySQLDB; integrated security=SSPI");  
        SqlCommand cmd = new SqlCommand("Select * from tmp_costing_data",  
con);  
  
        con.Open();  
        SqlDataReader rdr=cmd.ExecuteReader();  
        GridView1.DataSource = rdr;  
        GridView1.DataBind();  
        con.Close();  
        con.Dispose();
```

```

using System.Data.OracleClient;

        OracleConnection con = new OracleConnection("Data
Source=TMCTEST;User ID=tmclive;pwd=tmclive;integrated security = no");
        OracleCommand cmd = new OracleCommand("Select * from
tmp_costing_data", con);
        con.Open();
        OracleDataReader rdr = cmd.ExecuteReader();
        GridView1.DataSource = rdr;
        GridView1.DataBind();
        con.Close();
        con.Dispose();

```



SqlConnection objects