
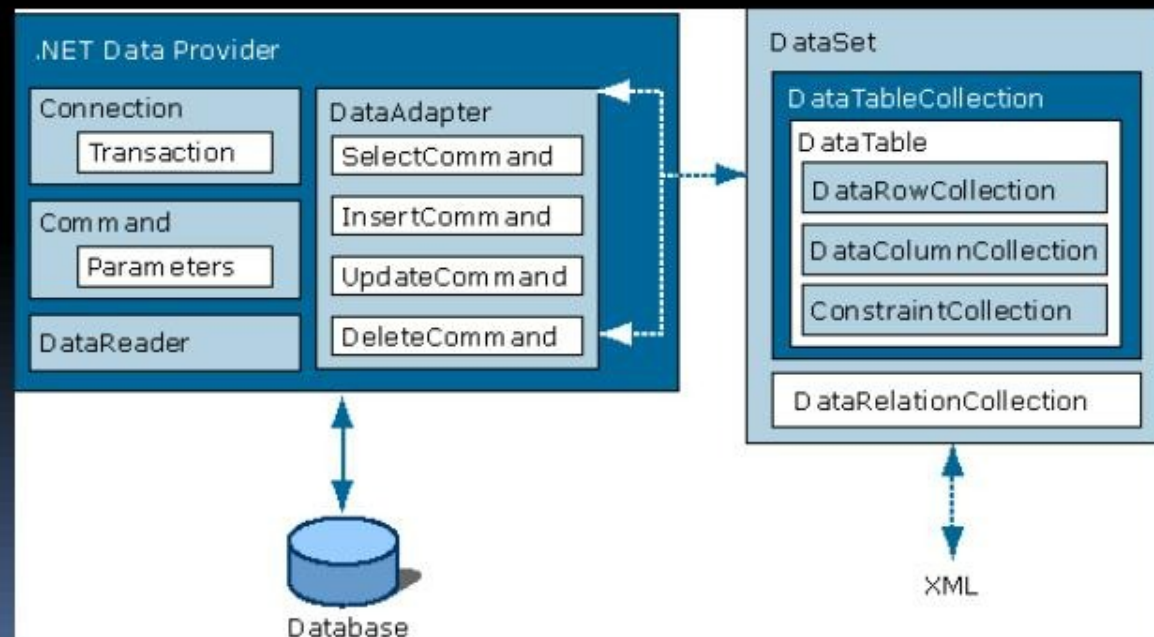




ADO.NET ARCHITECTURE

- 
- The .Net Data Provider act as a bridge between the application and the data source to execute commands and retrieve result.
 - 1) Connection Object
 - 2) Command Object
 - 3) DataReader Object
 - 4) DataAdapter Object


- There are two main components in ADO.NET
 - The .Net Data Provider
 - The Dataset





■ 1)Connection Object

- It is useful to make a connection between your application and database
- Method :
 - 1) Open()
 - 2)Close()
 - 3)Dispose()


- 
- Connection String provides information like data provider, data source, database name, Integrated Security and so on.


For instance,

- Provider=Providename like oracle oledb
 - Data Source=SqlServer path
 - Initial Catalog= Database Name
 - Username
 - Password
- 



■ 3)DataReader

- DataReader is useful to Read data in sequential mode.
 - The whole process is Read-only Process.
 - DataReader object allows only one row of data to be stored in the memory at any point of time
- 



■ 2) Command Object

- We can use command object for processing request in the form of command and returning the result of those request from the database.
- It also provide the functionality of updating records of the database
- Command object works in connected architecture mode.

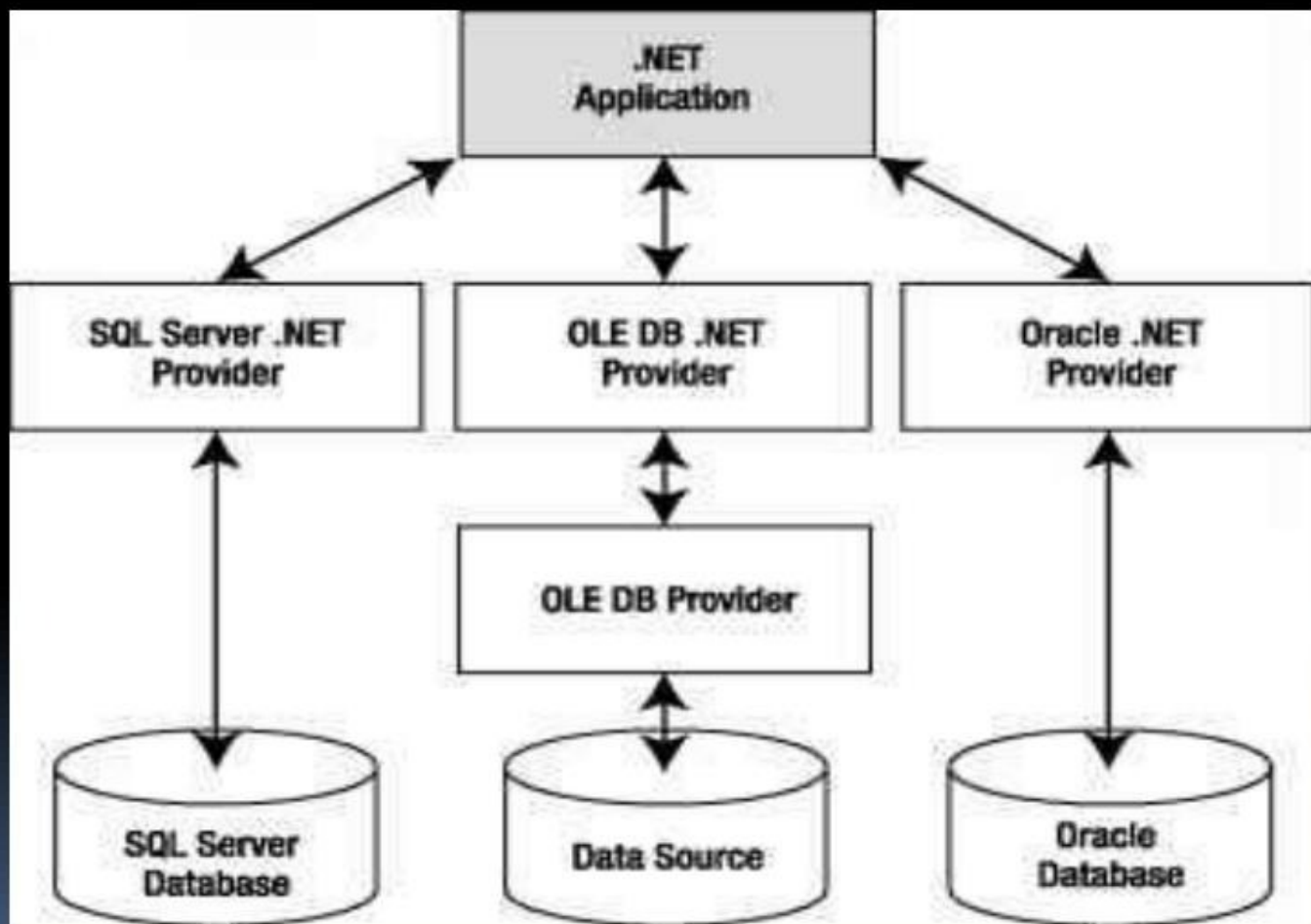
Types of .Net data Provider

- `System.Data.SqlClient` - Contains classes for connecting to Microsoft SQL Server.

`System.Data.OleDb` - Contains classes for connecting to a data source that has an OleDb provider.


`System.Data.Odbc` - Contains classes for connecting to a data source that has an ODBC driver.

`System.Data.OracleClient` - Contains classes for connecting to an Oracle database server.





■ 4)DataAdapter

- DataAdapter is used to Communicate between datasource and dataset
 - It is used to communicate between both vice versa
 - Fetch the value from datasouce and asign to DataTable or DataSet and also make Final Changes from DataTable or Dataset to Database
- 

ADO.NET

Data Provider

