By OnlineInterviewQuestions.com

ADO.Net Interview Questions

Many multinational companies and big organizations have a constant need to access a large amount of data at one point when different applications might be running. To help such companies ease their workload, ADO.net frameworks are used. Therefore, companies are looking for software engineers, who can provide them with fast yet efficient solutions for such problems. Companies are mainly looking for capable candidates who have an educational background for working with ADO.net and those who have adequate hands-on training. Some of the main responsibilities looked for include good communication skills and most importantly, the ability to convey the problems and identify the right solution at the right time.

People who are thriving to get a job in the software sector must prepare a good amount of interview questions that would help them ace their dream job. Apart from providing solutions to software problems, those who answer well the **ADO.net interview questions** are also expected to build codes and configure systems from scratch that can completely fit in the framework for customers. They are also expected to revise, refactor, debug and update codes whenever required. The ability to improve already existing software using the ADO.net framework will definitely land the candidate his/her dream job.

Finally, Practice here the top 15+ **ADO.Net Interview Questions**, that are mostly asked during ADO.Net Interviews. These interview Questions are very helpful to crack the ADO.Net Interview/Exam.

Q1. Describe ADO.net?

ADO.net is an acronym for ActiveX Data Objects, which is commonly used as a part of the .net framework. ADO.net framework describes the set of categories that are utilized to manage data access by connecting to different databases such as Oracle, SQL, etc.

Q2. List the two important objects of ADO.net and also list the namespaces that are commonly used in ADO.net to aid in connection to a database.

Two of the most important objects of ADO.net are the DataReader and DataSet. Some of the commonly used namespaces that can help in connecting to a database are:

- System.Data.OleDb namespace
- System.Data.SQLClient namespace
- System.Data namespace

Q3. List some of the common data providers for ADO.net framework.

Some of the common data providers for ADO.net framework include:

- The .net framework data provider for Oracle
- The .net framework data provider for OLE DB
- The .net framework data provider for ODBC
- The .net framework data provider for SQL server

Q4. What do you understand by the terms DataReader Object and DataSet Object?

DataReader is object-specific to ADO.net that aims in providing quality access to data from a particular and specified source of data. It is mainly composed of classes that are sequentially read from one data source such as Access, SQL, or Oracle. While on the other hand, **DataSet** is different sets of the collection of data that are arranged in a tabular representation where each column represents a variable and each row represents a value assigned to the variable.

Q5. What do you mean by Object Pooling in ADO.net?

Object pooling in terms of ADO.net framework is a repository of objects stored in memory cells that are can be used later. The benefit of using object pooling is that it reduced the load of the creation of new objects each time when required. When the user required any object, the manager of the object pool considers a request and processes it accordingly.

Q6. What is Connection Pooling in Ado.Net?

Connection pooling is a set of database connections that are used or reused when required after processing a request. The merit of utilizing a connection pooling database is that it increases the performance of execution of database commands. It also decreases the time and effort taken to carry out operations.

Q7. Differentiate between DataSet and DataReader

S.No	DataSet	DataReader
1.	Works on loops	Works on forward only
2.	Has disconnected recordsets	Has ample of connected recordsets
3.	Can carry out both addition and deletion	Can perform only read-only activities
4.	Can store XML data	There is no facility for storage of XML data
5.	There are multiple tables involved	Only requires a single table
6.	There must be a relationship between the tables	No relationship between the tables required
7.	Requires more memory space	Requires only less memory space

Q8. Enlist all the components of an ADO.net framework?

The components of an ADO.net framework include:

- **Connection object:** It is a representation of the connection to the databases
- **DataReader:** It performs only forward and read-only activities on the record set
- **DataAdapter:** It acts as a bridge between the database and dataset
- **Command object:** It is used to execute and store procedures and commands that are required on a database
- **ExecuteNonQuery:** This component is used to execute commands but it does not return any value
- **ExecuteScalar:** Performs execution and returns of single value
- **ExecuteReader:** Performs execution and returns result sets

Q9. Differentiate between SQLClient OLEDB and providers

SQLClient providers are used by ADO.net in order to access the SQL server database and because it provides excellent performance in comparison to other providers.

OLEDB providers are used in order to access any database that provides flexibility in changing the database at any given time. SQLClient providers are preferred over OLEDB providers as it gives a better connection with SQL database servers.

Q10. List some of the classes used by System.Data Namespace.

Some of the classes available in System.Data Namespace include Constraint, Dataset, DataColumn, DataRow, DataTable, and DataRelation

Q11. What are some of the commonly used commands in SQLCommand in ADO.net?

Some of the commonly used commands in SQL command in ADO.net framework include:

- **Cancel:** used when the user wants to cancel a request
- **ExecuteScalar:** used to execute and return a set of single values
- **ResetCommandTimeout:** used in order to reset any timeout property
- **ExecuteReader:** used for execution and returning data back into the DataReader
- **ExecuteNotQuery:** this command is used by the user in order to execute and does not require any result set in return
- **ExecuteXMLReader:** used when the user requires the execution and requires the resultant data in the XMLDataReader object

Q12. Differentiate between Response.Expires and Response.ExpiresAbsolute?

Response.Expires is a property that is specific to the minutes that a particular page has in caches right from the time of the request that has been placed from the server. While on the other hand, Response.ExpiresAbsolute is a property that helps in providing the exact time at which a particular page cache has expired.

For instance:

- Response.Expires is set to 10 minutes and the page is directed to stay in cache for 10 minutes from the time it has been requested.
- Response.ExpiresAbsolute gives information like 13 January 15:48:30. This time specifies when the page was in cache.

Q13. What is the importance of closing an ADO.net application?

Closing an application in the ADO.net framework is essential because it can negatively affect the reliability and scalability of the network. In case of open connection, there is always the possibility of attack from various sources of other open connections.

Q14. Describe two uses of the "using" statement during the operation of C#

The "using" statement in C# is used to import a namespace.

The following coding is coded:

```
using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Threading, Tasks;
using System.Windows. Forms;
using System.Data.OLEDB;
```

To close a running connection efficiently. The following coding is used:

```
using System;
using System. Collections.Generic;
using System. ComponentModel;
using System. Data;
using System. Drawing;
using System. Linq;
using System. Text;
```

```csharp
using System. Threading, Tasks;
using System. Windows. Forms;
using System. Data. OLEDB;

namespace WindowsFormsApp1
{
   public partial class Form1: Form
    {
    public Form1()
    {
      InitializeComponent();
     }
      private void Form1_Load(object sender, EventArgs e)
    {
        String constr = "Provider=Microsoft.ACE.OLEDB.12.0;} +
         "Data Source=***" +
          "Jet OLEDB: Database Password=***";
        using (OLEDBConnection con = new OLEDBConnection (constr))
    {
      con.Open();
       MessageBox.Show("Connection is Opened!);
     }
    }
   }
 }
```

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