Day17 Assignment

By

Narala Praveen

15-Feb-2022

Question1:
Research and Write What is Assembly in c#?

Assembly:

An Assembly is a basic building block of .Net framework application. It is a compile code that can be executed by the CLR (Common language Runtime). An assembly is a collection of types and resources that are built to work together and form a logical unit of functionality.

An Assembly can be dll or exe depending upon the project that we choose.

Assembly are basically two types :

1. **Private Assembly: Single application.**
2. **Shared Assembly: More than one application.**

Question 2:
In a tabular format write the Access modifiers and explain (create two assemblies with 3 classes in first assembly , 2 classes in other assembly)

First Assembly				Second Assembly	
Variables types	Base class	Derived class	Other class	Public derived class	Public Other class
public	yes	yes	yes	yes	yes
private	yes	no	no	no	no
protect	yes	yes	no	yes	no
internal	yes	yes	yes	no	no
Protected internal	yes	yes	yes	yes	no

Example Code:

Praveen Library assembly with 3 classes:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace PraveenLibrary
{       //*************************************************************\\
        //Author:Narala Praveen
        //Purpose:To check access modifiers
        //*************************************************************\\
    public  class PraveenBase
    {
        /// <summary>
        /// Declaring varibles of different types
        /// </summary>
        public int a;
        private int b;
        protected int c;
        internal int d;
        protected internal int e;

        /// <summary>
        /// This method is used for Readdata from Base class
        /// </summary>
        public void ReadData()
        {
```

```
            //***********All Variables are accepted same class*************\\
            a = 1;
            b = 2;
            c = 3;
            d = 4;
            e = 5;
        }

    }

    public class PraveenDerived:PraveenBase
    {
        /// <summary>
        /// This method is used to ReadData from Derived class
        /// </summary>
        public void ReadDerivedData()
        {
            //************Except Private variable all variables are accepted in
Derived same assembly**********\\
            a = 1;
            b = 2;
            c = 3;
            d = 4;
            e = 5;
        }

    }
    public class PraveenOther
    {
        /// <summary>
        /// This method is used to readdata from other class
        /// </summary>
        public void ReadOtherData()
        {
            //********Private and Protected variables are not accepted in Other
class in same assembly*****\\
            PraveenBase pb=new PraveenBase();
            pb.a = 1;
            pb.b = 2;
            pb.c = 3;
            pb.d = 4;
            pb.e = 5;

        }

    }
}
```

Public Assembly with classes:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;
using PraveenLibrary;

namespace PublicLibrary
{   //*********************************************************\\
    //Other Assembly class
    public class PraveenPublic:PraveenBase
    {
```

```
        /// <summary>
        /// This method is used to Readdata from basederived class
        /// </summary>
        public void ReadPublicData()
        {
            //***Except Private and Internal variables all other variables are
accepted in other assembly class\\

            a = 1;
            b = 2;
            c = 3;
            d = 4;
            e = 5;
        }
    }
    public class PraveenPublicOther
    {
        /// <summary>
        /// This method is used to Readdata from Public other class
        /// </summary>
        public void ReadPublicOtherData()
        {
            //*****Except public variable All other variables are accepted in
other assembly other class\\
            PraveenBase p=new PraveenBase();
            p.a = 1;
            p.b = 2;
            p.c = 3;
            p.d = 4;
            p.e = 5;


        }
    }
}
```