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**SID:10040**

## **DP ASSIGNMENT 02**

### **STRATEGY**

#### **CODE:**

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

namespace DPaSS02_10040
{
    public interface ICompression
    {
        void CompressFolder(string compressedArchiveFileName);
    }
    public class RarCompression : ICompression
    {
        public void CompressFolder(string compressedArchiveFileName)
        {
            Console.WriteLine("Folder is compressed using Rar approach: '" +
compressedArchiveFileName + ".rar' file is created");
        }

    }
    public class ZipCompression : ICompression
    {
        public void CompressFolder(string compressedArchiveFileName)
        {
            Console.WriteLine("Folder is compressed using zip approach: '" +
compressedArchiveFileName + ".zip' file is created");
        }
    }
    public class CompressionContext
    {
        private ICompression Compression;

        public CompressionContext(ICompression Compression)
        {
            this.Compression = Compression;
        }
        public void SetStrategy(ICompression Compression)
        {
            this.Compression = Compression;
        }
        public void CreateArchive(string compressedArchiveFileName)
        {
            Compression.CompressFolder(compressedArchiveFileName);
        }
    }
}
```

```

class Program
{
    static void Main(string[] args)
    {
        CompressionContext ctx = new CompressionContext(new ZipCompression());
        ctx.CreateArchive("muhammadHamza10040");
        ctx.SetStrategy(new RarCompression());
        ctx.CreateArchive("muhammadHamza10040");
        Console.ReadLine();
    }
}

```

#### OUTPUT:

```

Folder is compressed using zip approach: 'muhammadHamza10040.zip' file is created
Folder is compressed using Rar approach: 'muhammadHamza10040.rar' file is created

```

## SINGLETON

#### CODE

```

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

namespace Singleton
{
    sealed class Singleton
    {
        private Singleton()
        {
        }

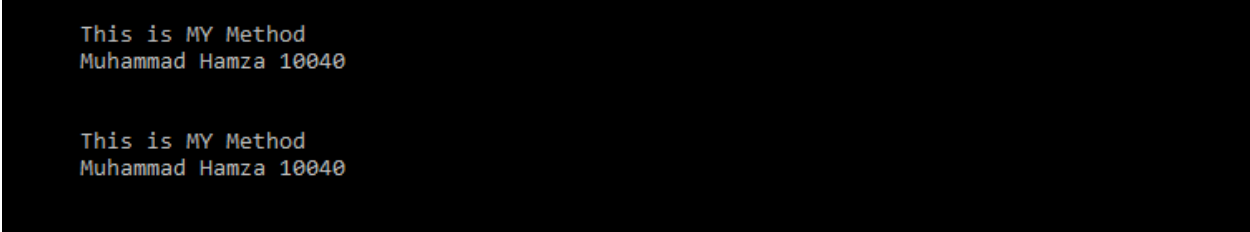
        public static Singleton getInstance = null;
        public static Singleton myObject()
        {
            if (getInstance==null)
            {
                return new Singleton();
            }
            return getInstance;
        }
        public void myMethod()
        {
            Console.WriteLine("This is MY Method \n Muhammad Hamza 10040 \n");
        }
    }
}

class Program
{
    static void Main(string[] args)

```

```
    {  
        Singleton obj1 = Singleton.myObject();  
        obj1.myMethod();  
        Singleton obj2 = Singleton.myObject();  
        obj2.myMethod();  
        Console.ReadLine();  
    }  
}
```

**SS**



```
This is MY Method  
Muhammad Hamza 10040
```

```
This is MY Method  
Muhammad Hamza 10040
```