

Assignments-07

Write a console application which will read text files from mentioned file system location. And list subdirectories from mentioned folder on file system using System.IO namespace and use DirectoryInfo, Directory, File and FileInfo Classes with all the methods present in these classes.

Solution:

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

namespace File_hand
{
    class File_hand_q1
    {
        static void Main()
        {
            var lines = File.ReadAllLines("f:\\file_handling.txt");
            for (var i = 0; i < lines.Length; i += 1)
            {
                var line = lines[i];
                Console.WriteLine(line);
            }
            Console.WriteLine("\nFolders in This Drive : \n\n");
            DirectoryInfo di = new DirectoryInfo("c:\\");
            DirectoryInfo[] diArr = di.GetDirectories();
            foreach (DirectoryInfo dri in diArr)
            {
                Console.WriteLine(dri.Name);
                Console.ReadKey();
            }
        }
    }
}
```

- 1) Create a simple user interface to accept account related information of a customer.[Account class from Lab session on Delegates and Events can be used]. Save the information about the customers in a file using StreamWriter and retrieve the information using StreamReader.**

Solution:

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

```

namespace File_hand
{
    class File_hand_q2
    {
        static void Main(string[] args)
        {
            int ch;
            string name, branch;
            int acc_no;
            void insert()
            {
                FileStream fs = new FileStream("e:\\sec_asmngt.txt", FileMode.Append,
FileAccess.Write);
                StreamWriter w = new StreamWriter(fs);
                Console.WriteLine("Enter Your Name:");
                name = Console.ReadLine();
                w.Write(name + " ");
                Console.WriteLine("Enter Your Branch Name:");
                branch = Console.ReadLine();
                w.Write(branch + " ");
                Console.WriteLine("Enter Your Account Number:");
                acc_no = Convert.ToInt32(Console.ReadLine());
                w.Write(acc_no + " ");
                w.WriteLine(Environment.NewLine);
                Console.WriteLine("Record Inserted Succesfully.");
                w.Flush();
                fs.Close();
            }
            void show()
            {
                Console.WriteLine("\n\n File Content:\n");
                var lines = File.ReadAllLines("e:\\sec_asmngt.txt");
                for (var i = 0; i < lines.Length; i += 1)
                {
                    var line = lines[i];
                    Console.WriteLine(line);
                }
                // Console.ReadKey();
            }
            while(true)
            {
                Console.WriteLine("\n-----Menu-----\n");
                Console.WriteLine("1) Press 1 To insert New Record into file:");
                Console.WriteLine("2) Press 2 For Show Content in File:");
                Console.WriteLine("3) Press 3 To Exit From Menu:");
                Console.WriteLine("Enter Your Choice :");
                ch = Convert.ToInt32(Console.ReadLine());
                switch (ch)
                {

```

```

        case 1:
            insert();
            break;
        case 2:
            show();
            break;

        case 3:
            Environment.Exit(0);
            break;
    }

}

}

}

```

2) Make the Employee, MarketingExecutive and Manager class as Serializable created in LitwareLib.dll .

Solution:

```

using System;
using System.IO;
using System.Runtime.Serialization.Formatters.Binary;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

```

```

namespace File_hand
{
    [Serializable]
    abstract class Employee
    {
        public abstract void getdetails();
        public abstract void showdetails();
    }
    [Serializable]
    class manager:Employee
    {
        public int empid;
        public string empname;

        public override void getdetails()
    }
}

```

```

    {
        Console.WriteLine("Enter Your Employess Id:");
        empid = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter Your Employess Name:");
        empname = Console.ReadLine();
        //Console.ReadKey();
    }
    public override void showdetails()
    {
        Console.WriteLine("Your Employee Id is {0}", empid);
        Console.WriteLine("Your Employee Name is {0}", empname);
        //Console.ReadKey();
    }
}
[Serializable]
class marketexe : Employee
{
    public int empid;
    public string empname;

    public override void getdetails()
    {
        Console.WriteLine("Enter Your Employess Id:");
        empid = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("Enter Your Employess Name:");
        empname = Console.ReadLine();
        //Console.ReadKey();
    }
    public override void showdetails()
    {
        Console.WriteLine("Your Employee Id is {0}", empid);
        Console.WriteLine("Your Employee Name is {0}", empname);
        //Console.ReadKey();
    }
}

```

```

class File_hand_q3
{
    static void Main()
    {
        manager mg = new manager();
        marketexe mk = new marketexe();
        FileStream stream = new FileStream("e:\\sss.txt", FileMode.OpenOrCreate);
        BinaryFormatter formatter = new BinaryFormatter();

        formatter.Serialize(stream, mg);
        Console.WriteLine();
    }
}

```

```

        formatter.Serialize(stream, mk);

        stream.Close();
    }
}
}

```

- 3) Create a user interface to accept information about Manager(For simplicity accept only employee id , name and basic salary). Serialize the object using Binary Serialization and retrieve its information by deserializing the object.**

Solution:

```

using System;
using System.IO;
using System.Runtime.Serialization.Formatters.Binary;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace File_hand
{
    [Serializable]
    class Manager
    {
        public int empid;
        public string empname;
        public int salary;
        public Manager(int empid, string empname, int salary)
        {
            this.empid = empid;
            this.empname = empname;
            this.salary = salary;
        }
    }

    class Program
    {
        static void Main()
        {
            FileStream stream = new FileStream("e:\\new2.txt", FileMode.OpenOrCreate);

```

```
BinaryFormatter formatter = new BinaryFormatter();

Manager mg = new Manager(101, "sonoo", 25000);
formatter.Serialize(stream, mg);

stream.Close();

Console.WriteLine("Serialize Done.\n");

FileStream st = new FileStream("e:\\new2.txt", FileMode.OpenOrCreate);
BinaryFormatter form = new BinaryFormatter();

Manager s = (Manager)form.Deserialize(st);
Console.WriteLine("Rollno: " + s.empid);
Console.WriteLine("Name: " + s.empname);
Console.WriteLine("Name: " + s.salary);
Console.WriteLine("Serialize Done.\n");
stream.Close();
Console.ReadKey();

    }
}
}
```