Assignment 3

1.Openable Inferface

Code:

Progam.cs

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

namespace Gift
{
   class Program
   {
      static void Main(string[] args)
      {
         Char c;

         Console.WriteLine("Enter the letter found in the paper");
         c = Convert.ToChar(Console.ReadLine());


         if (c == 'T' || c == 't')
         {
            TreasureBox t = new TreasureBox();
            Console.WriteLine( t.openSesame());

         }
         else if( c=='p' || c=='P' )
         {
            Parachute p = new Parachute();
              Console.WriteLine( p.openSesame());
         }

         Console.ReadKey();
```

```
        }

    }
}
```

TreasureBox.cs

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

namespace Gift
{
    class TreasureBox :IOpenable
    {
        public  string openSesame()
        {
            return "Congratulation ,Here is your lucky win";
        }


    }
}
```

Parachute.cs

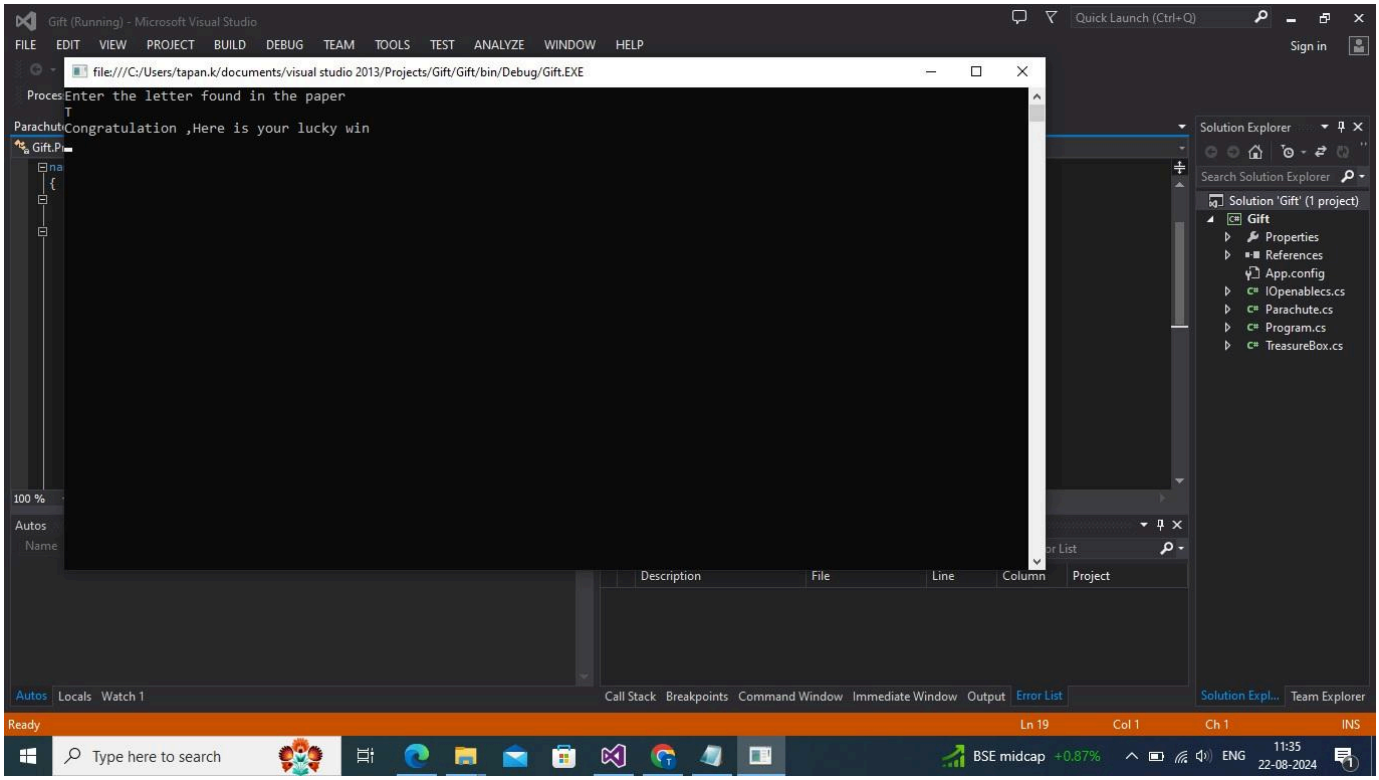
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Gift
{
```

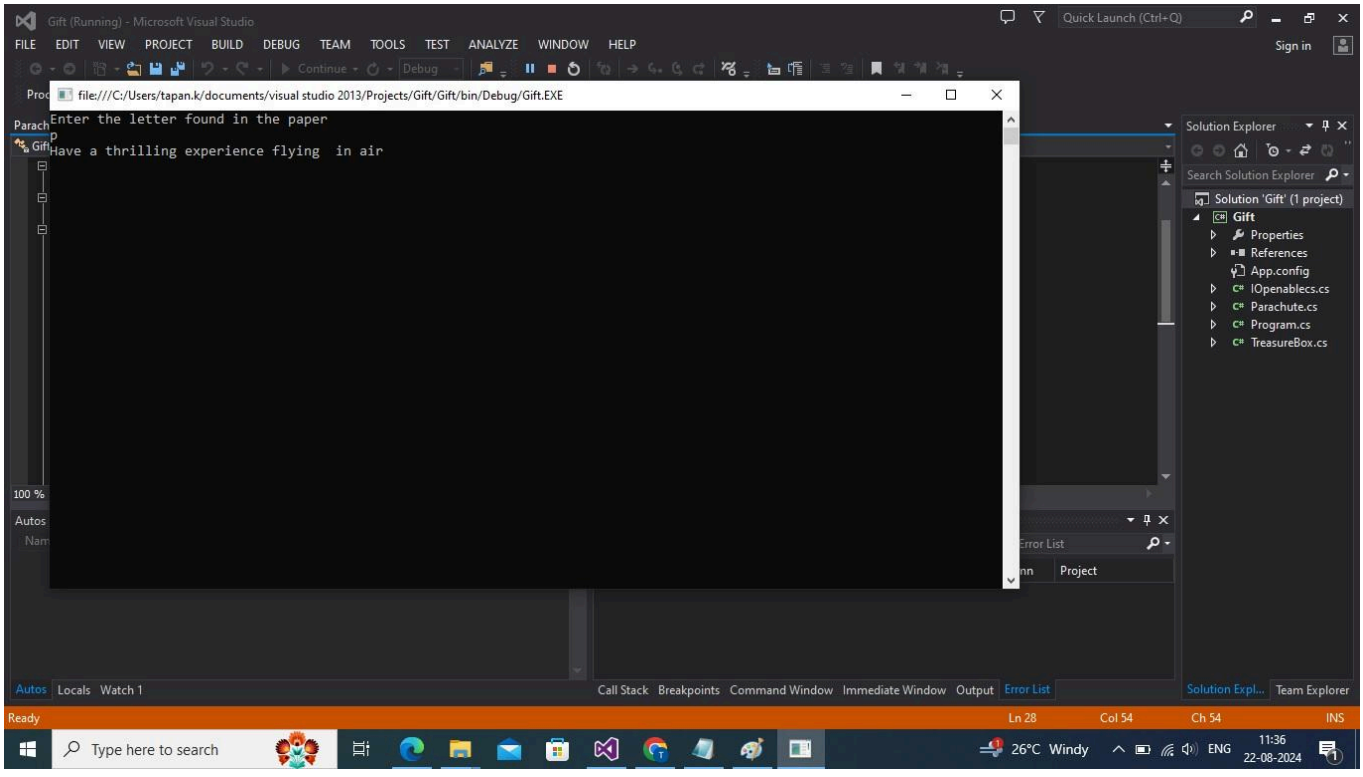
```
    class Parachute:IOpenable
    {

        public string openSesame()
        {
            return "Have a thrilling experience flying  in air";
        }
    }
}
```

IOpenable.cs

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

namespace OpenableInterface

 {

           interface IOpenable
           {
          String OpenSesame();
           }
 }
```

Output:


Gift (Running) - Microsoft Visual Studio
file:///C:/Users/tapan.k/documents/visual studio 2013/Projects/Gift/Gift/bin/Debug/Gift.EXE
Enter the letter found in the paper
T
Congratulation ,Here is your lucky win
Solution Explorer
Gift
Properties
References
App.config
IOpenablecs.cs
Parachute.cs
Program.cs
TreasureBox.cs
Ready
Type here to search
11:35
22-08-2024


Gift (Running) - Microsoft Visual Studio
file:///C:/Users/tapan.k/documents/visual studio 2013/Projects/Gift/Gift/bin/Debug/Gift.EXE
Enter the letter found in the paper
P
Have a thrilling experience flying in air
Solution Explorer
Gift
Properties
References
App.config
IOpenablecs.cs
Parachute.cs
Program.cs
TreasureBox.cs
Ready
Type here to search
26°C Windy
11:36
22-08-2024

2.Flight Status

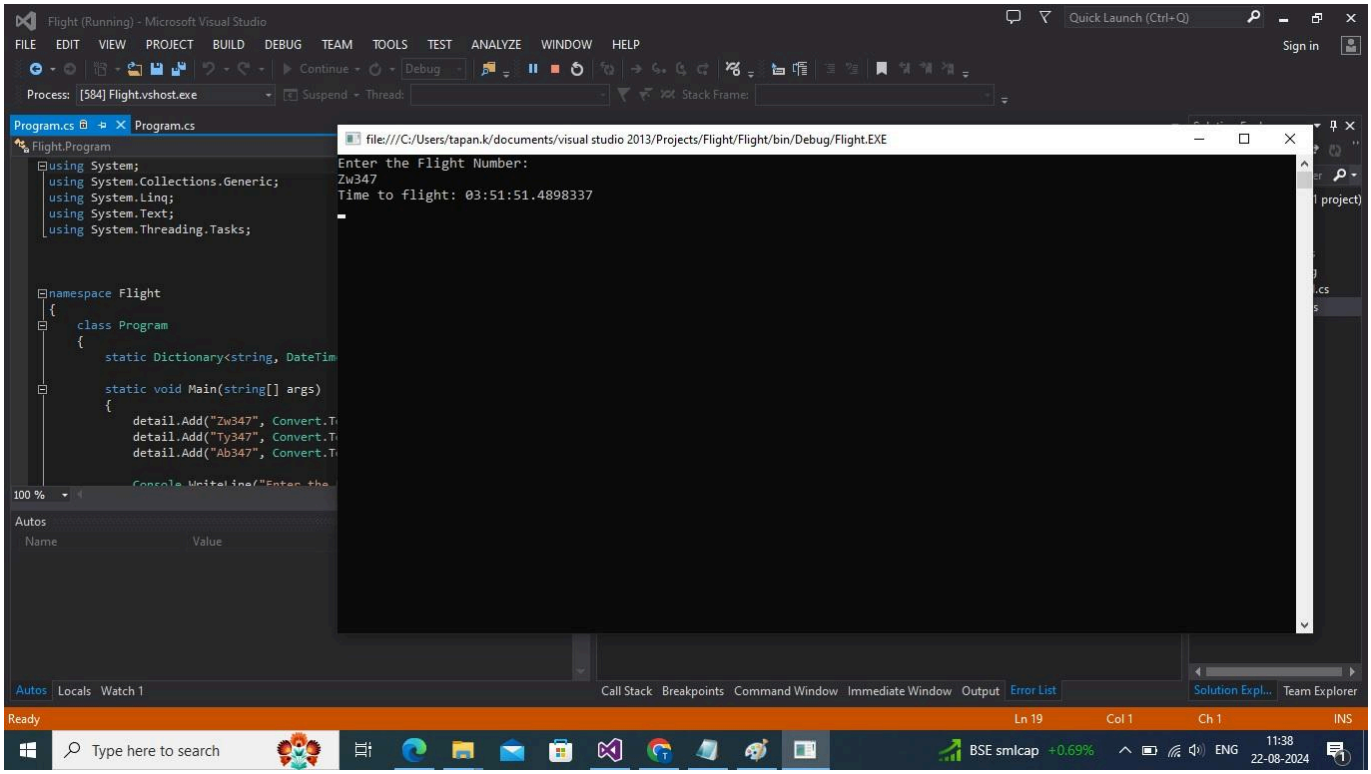
Code:

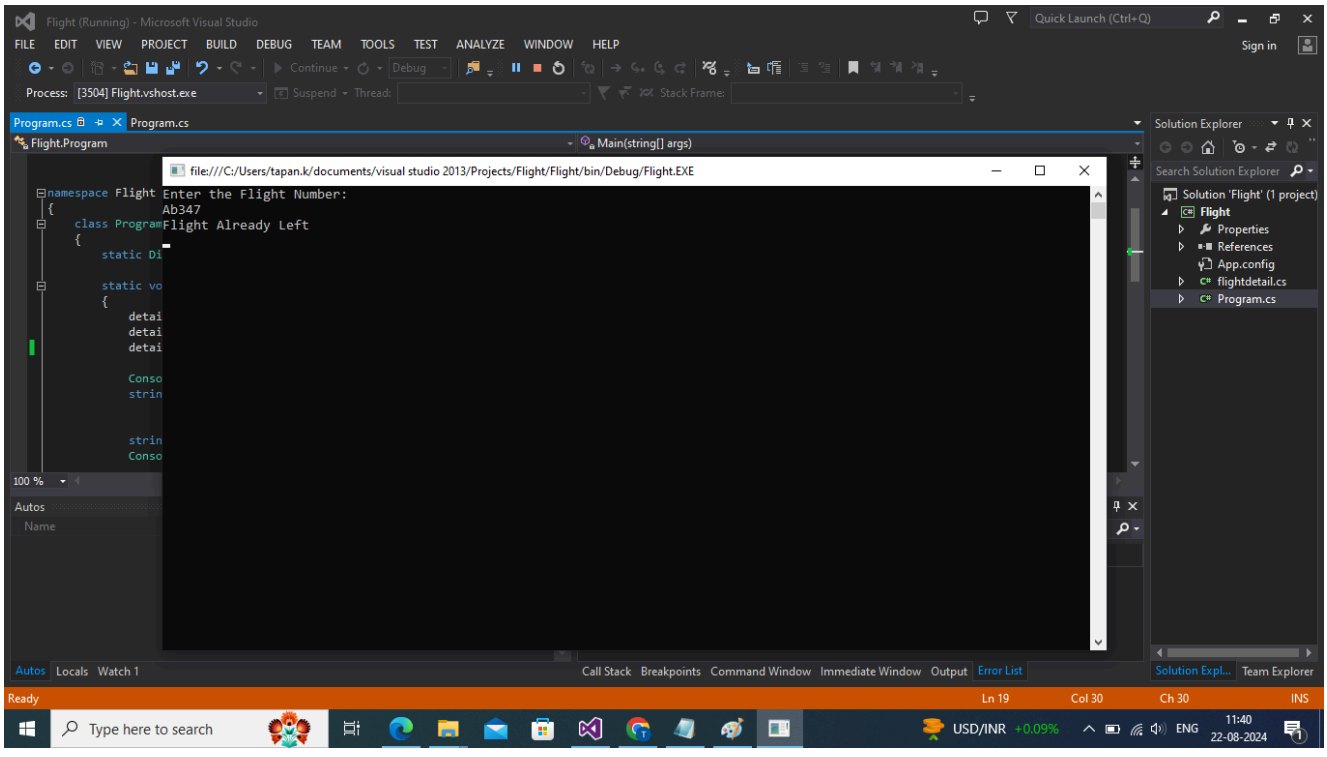
Progam.cs

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



namespace Flight
{
   class Program
   {
      static Dictionary<string, DateTime> detail = new Dictionary<string, DateTime>();

      static void Main(string[] args)
      {
         detail.Add("Zw347", Convert.ToDateTime("15:30:30"));
         detail.Add("Ty347", Convert.ToDateTime("18:38:30"));
         detail.Add("Ab347", Convert.ToDateTime("15:30:30"));

         Console.WriteLine("Enter the Flight Number:");
         string no = Console.ReadLine();


         string status = flightStatus(no);
         Console.WriteLine(status);

         Console.ReadKey();
      }

      public static string flightStatus(string flightNo)
      {
         if (detail.ContainsKey(flightNo))
         {
```

```
            DateTime start_time = detail[flightNo];
            DateTime current = DateTime.Now;

            if (start_time < current)
            {
                return "Flight Already Left";
            }
            else
            {
                return "Flight is On Time or Yet to Depart";
            }
        }
        else
        {
            return "Invalid Flight No";
        }
    }
  }
}
```

Output:





3. Product Details

Program.cs

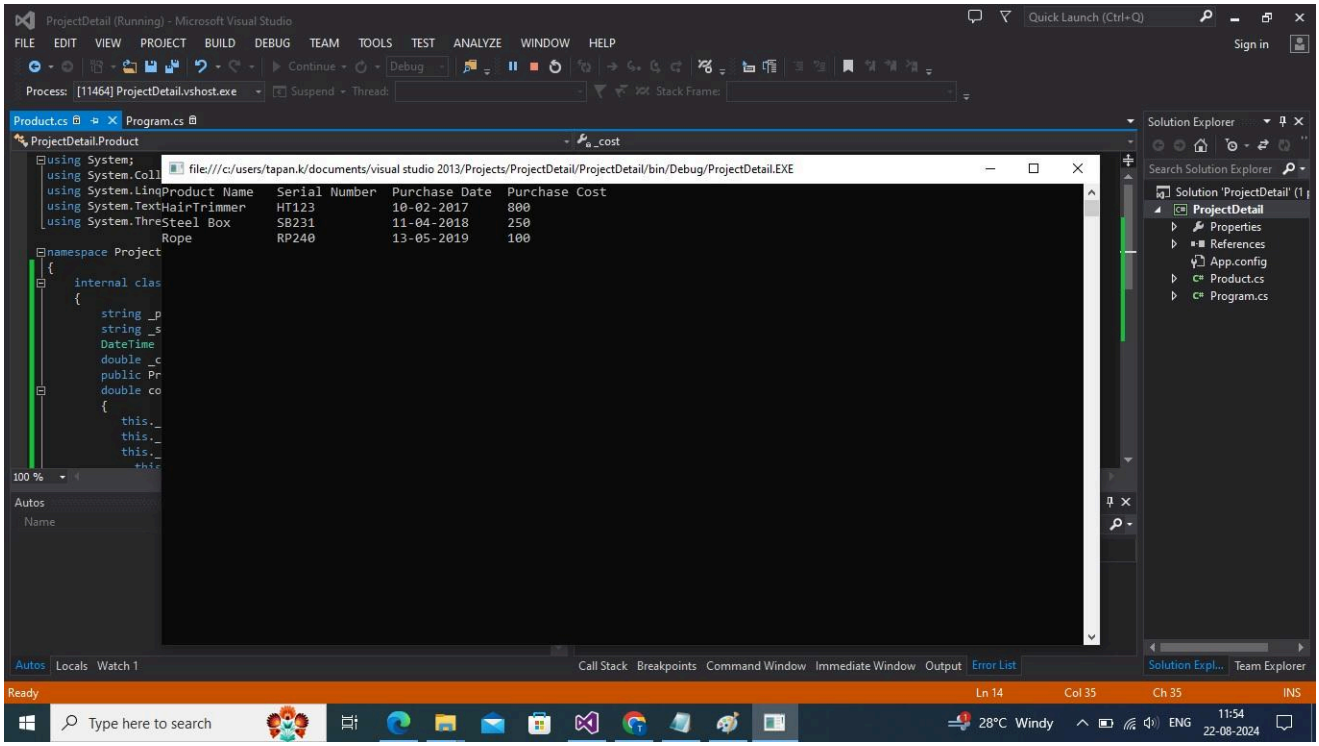
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace ProjectDetail
{
   class Program
   {
      static void Main(string[] args)
      {
         List<Product> products = new List<Product>();
         products.Add(new Product("HairTrimmer", "HT123",

        Convert.ToDateTime("10-02-2017"), 800));

         products.Add(new Product("Steel Box", "SB231",
         Convert.ToDateTime("11-04-2018"), 250));

         products.Add(new Product("Rope", "RP240",

         Convert.ToDateTime("13-05-2019"), 100));

          Console.WriteLine(String.Format("{0,-15}{1,-15}{2,-15}{3,-15}", "Product Name",
         "Serial Number", "Purchase Date", "Purchase Cost"));

                  foreach (Product product in products)
               {
                  Console.WriteLine(product.ToString());
               }
               Console.ReadKey();
            }
   }
}
```

Product.cs

```
using System;
using System.Collections.Generic;
```

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

namespace ProjectDetail
{
   internal class Product
   {
      string _productName { get; set; }
      string _serialNumber { get; set; }
      DateTime _purchaseDate { get; set; }
      double _cost { get; set; }

      public Product(string productName, string serialNumber, DateTime purchaseDate,
      double cost)
      {
         this._productName = productName;
         this._serialNumber = serialNumber;
         this._purchaseDate = purchaseDate;
           this._cost = cost;
      }

      public override string ToString()
      {
          return String.Format("{0,-15}{1,-15}{2,-15}{3,-15}",
          _productName,
          _serialNumber,
          _purchaseDate.ToString("dd-MM-yyyy"),
          _cost);
      }
   }
}
```

Output:


ProjectDetail (Running) - Microsoft Visual Studio
FILE EDIT VIEW PROJECT BUILD DEBUG TEAM TOOLS TEST ANALYZE WINDOW HELP
Sign in
Quick Launch (Ctrl+Q)
Process: [11464] ProjectDetail.vshost.exe
Product.cs
Program.cs
ProjectDetail.Product
_cost
file:///c:/users/tapan.k/documents/visual studio 2013/Projects/ProjectDetail/ProjectDetail/bin/Debug/ProjectDetail.EXE
Product Name Serial Number Purchase Date Purchase Cost
HairTrimmer HT123 10-02-2017 800
Steel Box SB231 11-04-2018 250
Rope RP240 13-05-2019 100
Solution Explorer
Search Solution Explorer
Solution 'ProjectDetail'
ProjectDetail
Properties
References
App.config
Product.cs
Program.cs
Autos
Name
Autos Locals Watch 1
Call Stack Breakpoints Command Window Immediate Window Output Error List
Solution Expl... Team Explorer
Ready
Ln 14 Col 35 Ch 35 INS
Type here to search
28°C Windy
ENG
11:54
22-08-2024