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1.Openable Interface

IOpenable.cs

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

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

TreasureBox.cs

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

namespace OpenableInterface
{
    class TreasureBox : IOpenable
    {
        public string OpenSesame()
        {
```

```
            return "Congratulations, Here is your lucky win";
        }
    }
}
```

Parachute.cs

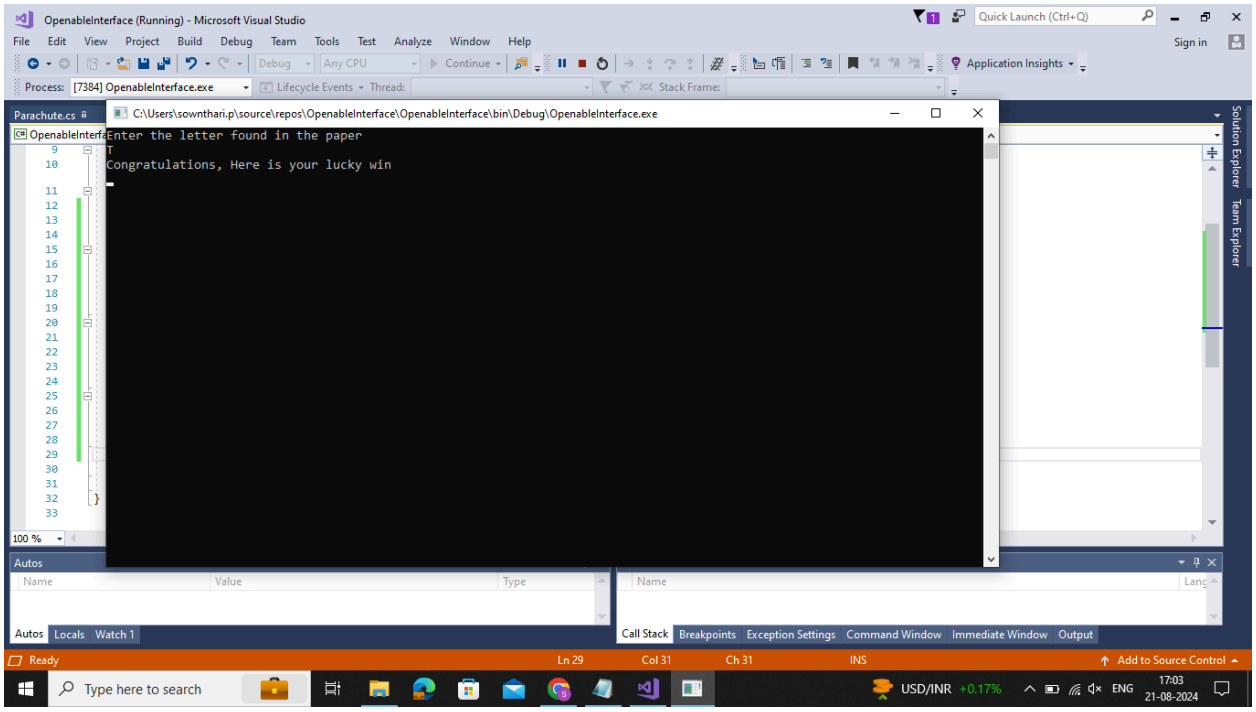
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace OpenableInterface
{
    class Parachute : IOpenable
    {
        public string OpenSesame()
        {
            return "Have a thrilling experience flying in air";
        }
    }
}
```

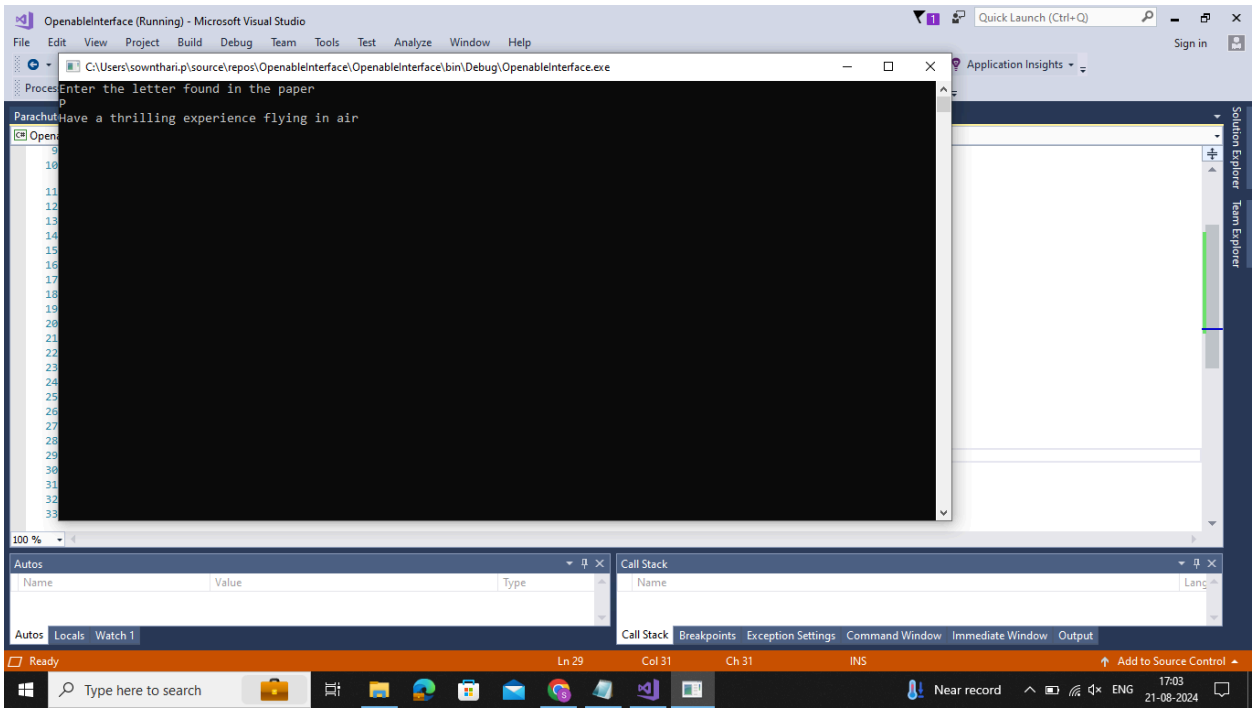
Program.cs

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

namespace OpenableInterface
```

```
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter the letter found in the paper ");
            string letter = Console.ReadLine();
            if (letter.ToLower().Equals("t"))
            {
                TreasureBox tb = new TreasureBox();
                Console.WriteLine(tb.OpenSesame());
            }
            else if (letter.ToLower().Equals("p"))
            {
                Parachute p = new Parachute();
                Console.WriteLine(p.OpenSesame());
            }
            else
            {
                Console.WriteLine("Oops! Bad luck:(");
            }
            Console.ReadKey();
        }
    }
}
```

Output:


OpenableInterface (Running) - Microsoft Visual Studio
C:\Users\sownthari.p\source\repos\OpenableInterface\OpenableInterface\bin\Debug\OpenableInterface.exe
Enter the letter found in the paper
T
Congratulations, Here is your lucky win


OpenableInterface (Running) - Microsoft Visual Studio
C:\Users\sownthari.p\source\repos\OpenableInterface\OpenableInterface\bin\Debug\OpenableInterface.exe
Enter the letter found in the paper
P
Have a thrilling experience flying in air

2. Flight Status

Flight.cs

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

namespace FlightStatus
{
   internal class Flight
   {
      static Dictionary<string, DateTime> FlightDeparture = new Dictionary<string,
DateTime>()
      {
         {"AS456", Convert.ToDateTime("20:05:05") },
         {"ZB990", Convert.ToDateTime("10:55:05") },
         {"GE213", Convert.ToDateTime("18:23:34") },
         {"NM876", Convert.ToDateTime("19:15:54") }
      };

      public static string FlightTime(string flightNo)
      {
         if (FlightDeparture.ContainsKey(flightNo))
         {
            DateTime ttd = FlightDeparture[flightNo];
            if(DateTime.Now < ttd)
            {
               TimeSpan td = ttd.Subtract(DateTime.Now);
               return $"Time to flight: {td}";
            }
```

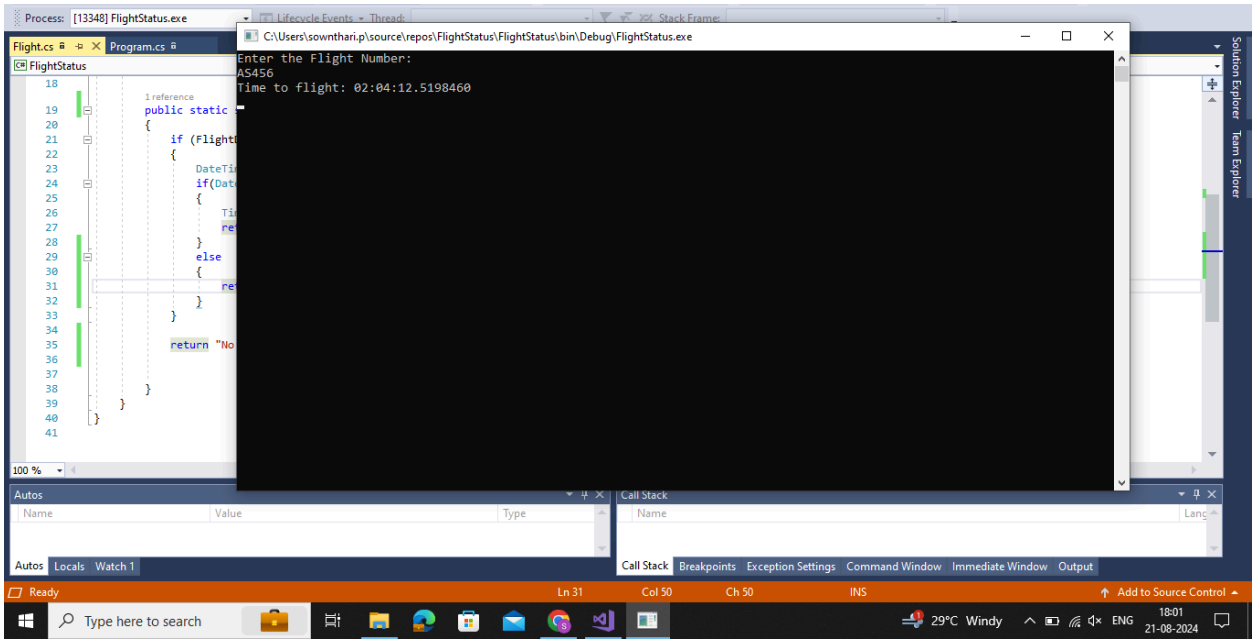
```
            else
            {
                return "Flight already left";
            }
        }

        return "No such flight available";


    }
  }
}
```

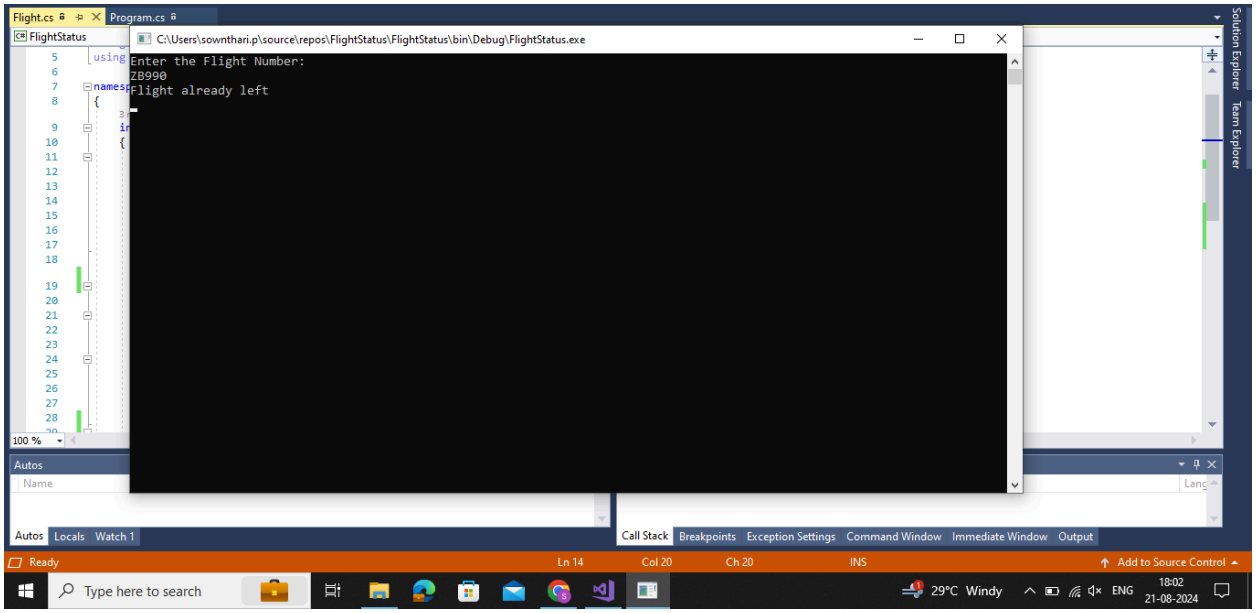
Program.cs

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

namespace FlightStatus
{

  class Program
  {
    static void Main(string[] args)
    {
        Console.WriteLine("Enter the Flight Number: ");
        string flightNo = Console.ReadLine();
        Flight f = new Flight();
        Console.WriteLine(Flight.FlightTime(flightNo));
```

```
            Console.ReadKey();
        }
    }

}
```

Output





3. Product Details

Product.cs

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

namespace ProductDetails
{
    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)
        {
            _productName = productName;
            _serialNumber = serialNumber;
            _purchaseDate = purchaseDate;
            _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);
        }

    }
}
```

Program.cs

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

namespace ProductDetails
{
    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();
        }
    }
}
```

Output: