OOP LAB TASK # 11

Name: Shahmeer khan.
ClassID: 106278.
Student-ID:12113.

Task:

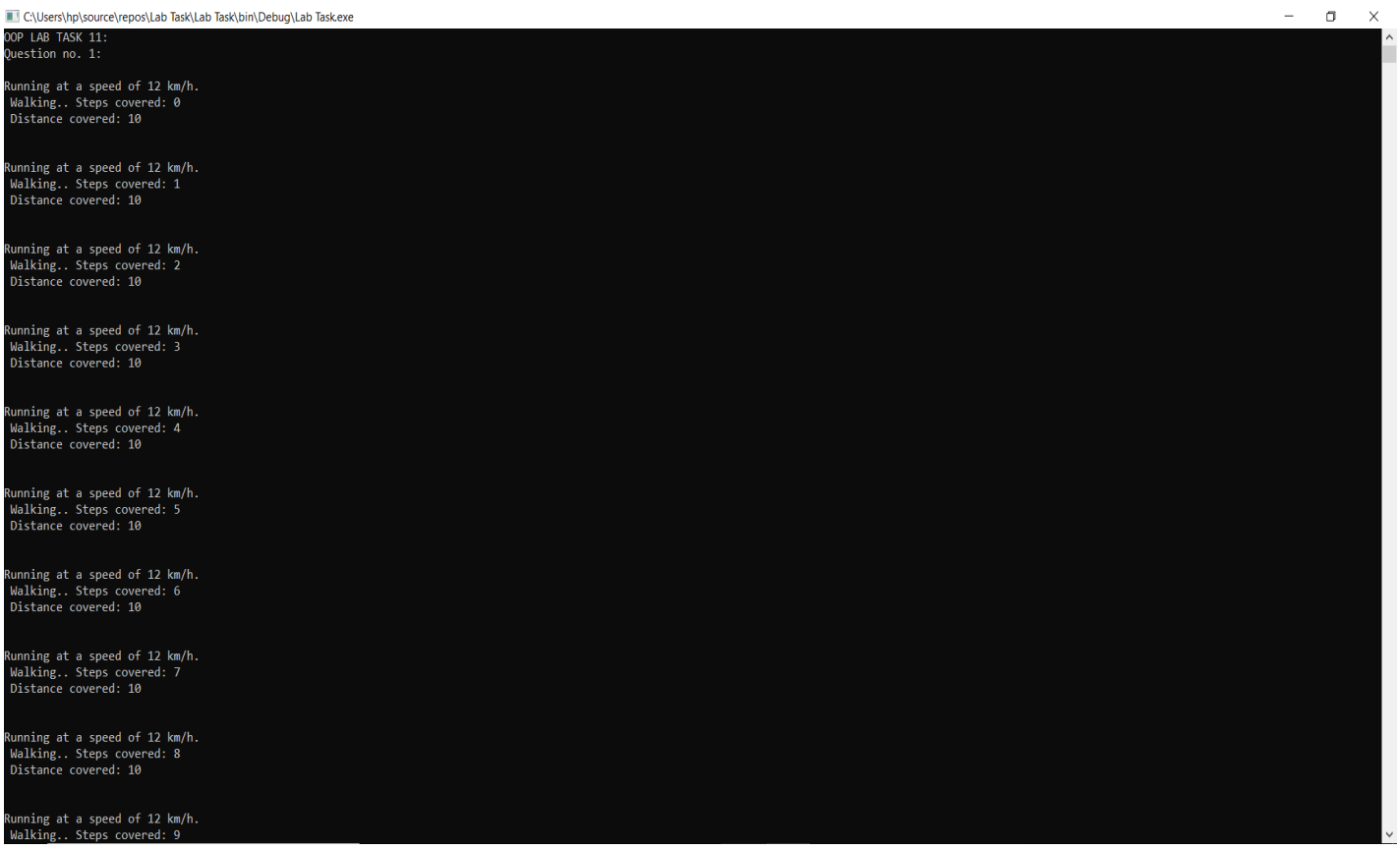
Question no. 1:
Inputted Code:

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

namespace Lab_Task
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("OOP LAB TASK 11:");
            Console.WriteLine("Question no. 1:");
            Human function = new Human();
            function.Total_Distance(10, 12);
            Console.ReadKey();
        }
    }
    class Human
    {
        public void Total_Distance(int Walk, int Run)
        {
            for (int i = 0; i <= Walk; i++)
            {
                Console.WriteLine("\nRunning at a speed of " + Run + " km/h.\n Walking..
Steps covered: " + i +
                    "\n Distance covered: " + Walk + "\n");
            }
        }
    }
}
```

```
0 references
class Program
{
    0 references
    static void Main(string[] args)
    {
        Console.WriteLine("OOP LAB TASK 11:");
        Console.WriteLine("Question no. 1:");
        Human function = new Human();
        function.Total_Distance(10, 12);
        Console.ReadKey();
    }
}
2 references
class Human
{
    1 reference
    public void Total_Distance(int Walk, int Run)
    {
        for (int i = 0; i <= Walk; i++)
        {
            Console.WriteLine("\nRunning at a speed of " + Run + " km/h.\n Walking.. Steps covered: " + i +
                "\n Distance covered: " + Walk + "\n");
        }
    }
}
```

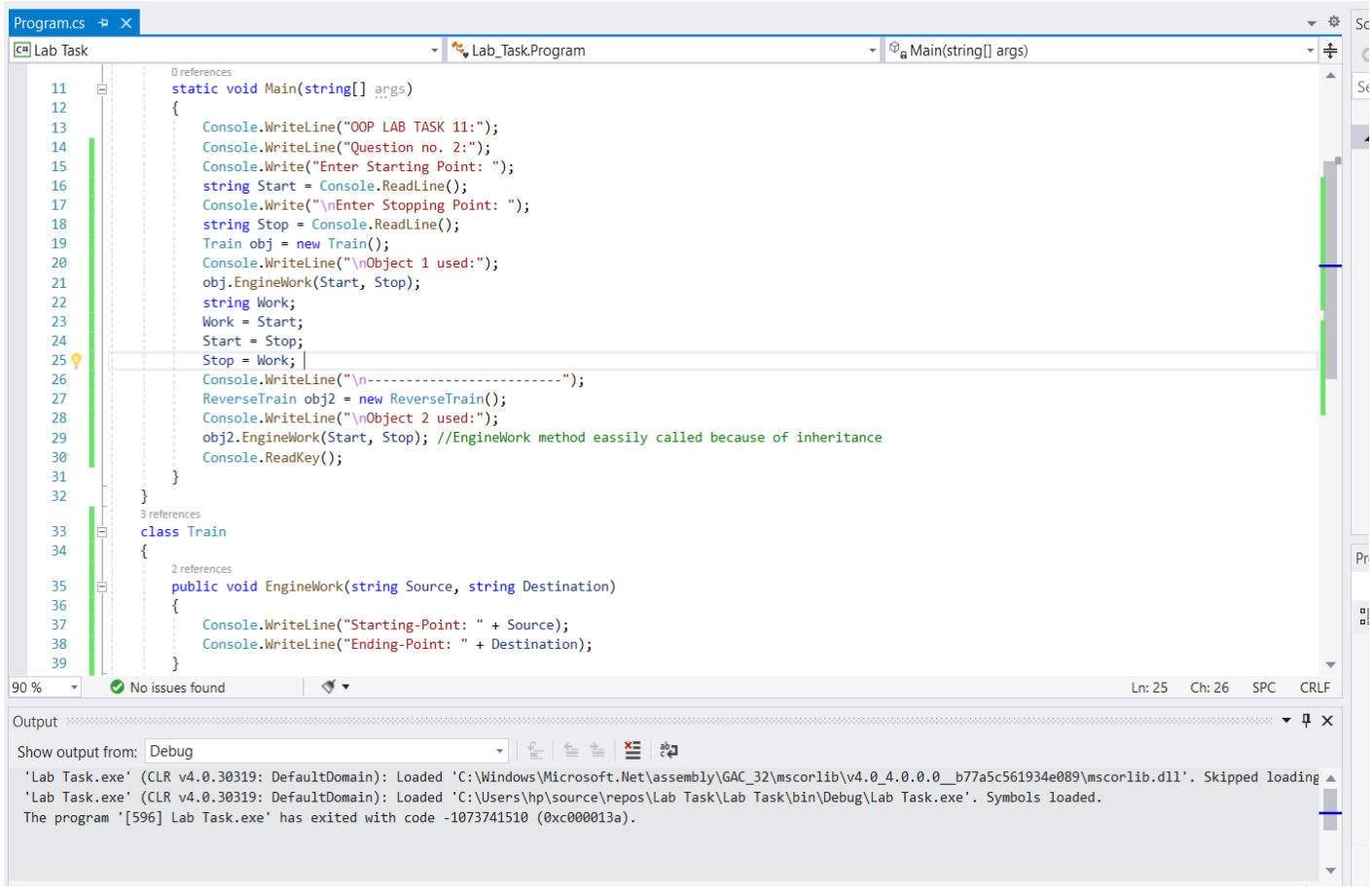
Output:



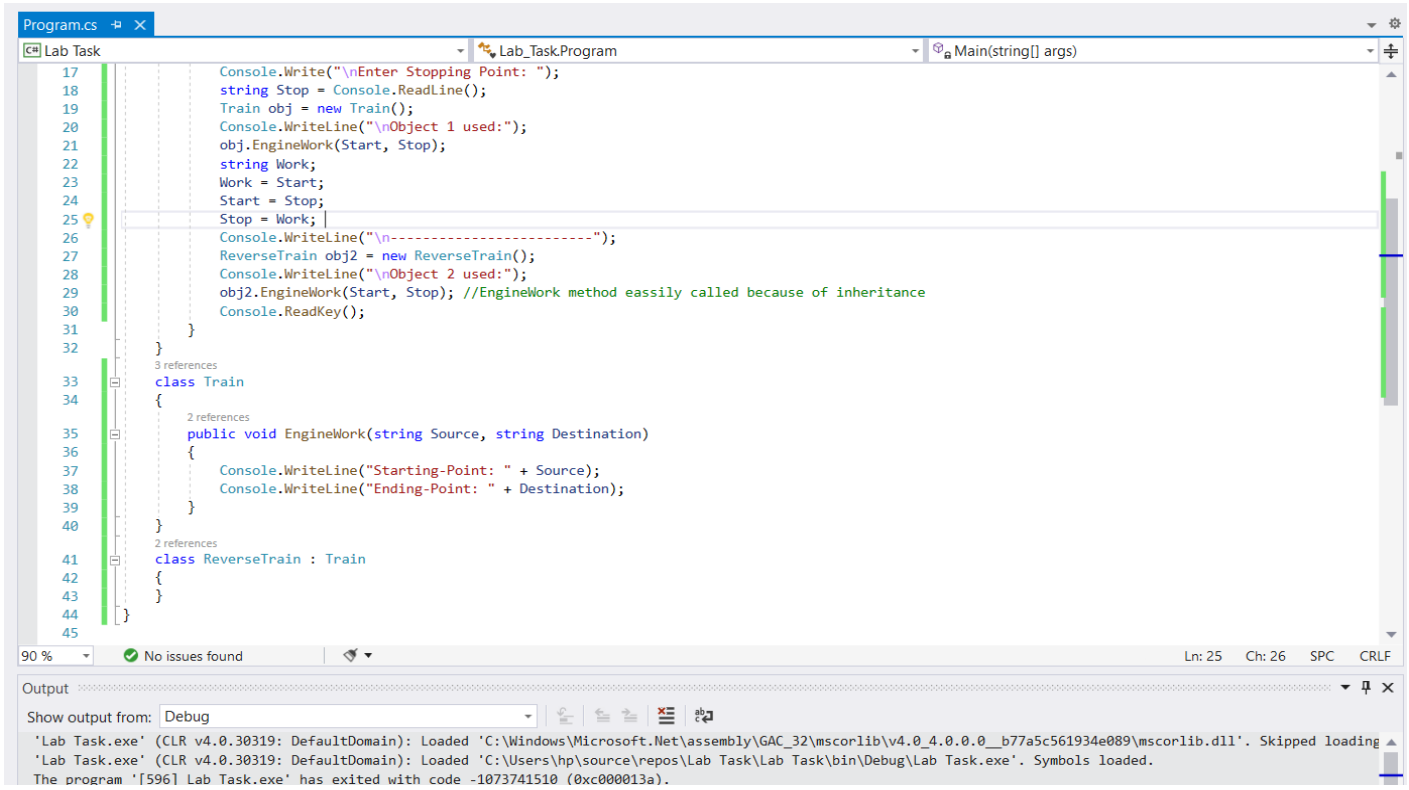
Question no. 2:
Inputted Code:

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

namespace Lab_Task
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("OOP LAB TASK 11:");
            Console.WriteLine("Question no. 2:");
            Console.Write("Enter Starting Point: ");
            string Start = Console.ReadLine();
            Console.Write("\nEnter Stopping Point: ");
            string Stop = Console.ReadLine();
            Train obj = new Train();
            Console.WriteLine("\nObject 1 used:");
            obj.EngineWork(Start, Stop);
            string Work;
            Work = Start;
            Start = Stop;
            Stop = Work;
            Console.WriteLine("\n-------------------------");
            ReverseTrain obj2 = new ReverseTrain();
            Console.WriteLine("\nObject 2 used:");
            obj2.EngineWork(Start, Stop); //EngineWork method eassily called because of
inheritance
            Console.ReadKey();
        }
    }
    class Train
    {
        public void EngineWork(string Source, string Destination)
        {
            Console.WriteLine("Starting-Point: " + Source);
            Console.WriteLine("Ending-Point: " + Destination);
        }
    }
    class ReverseTrain : Train
    {
    }
}
```

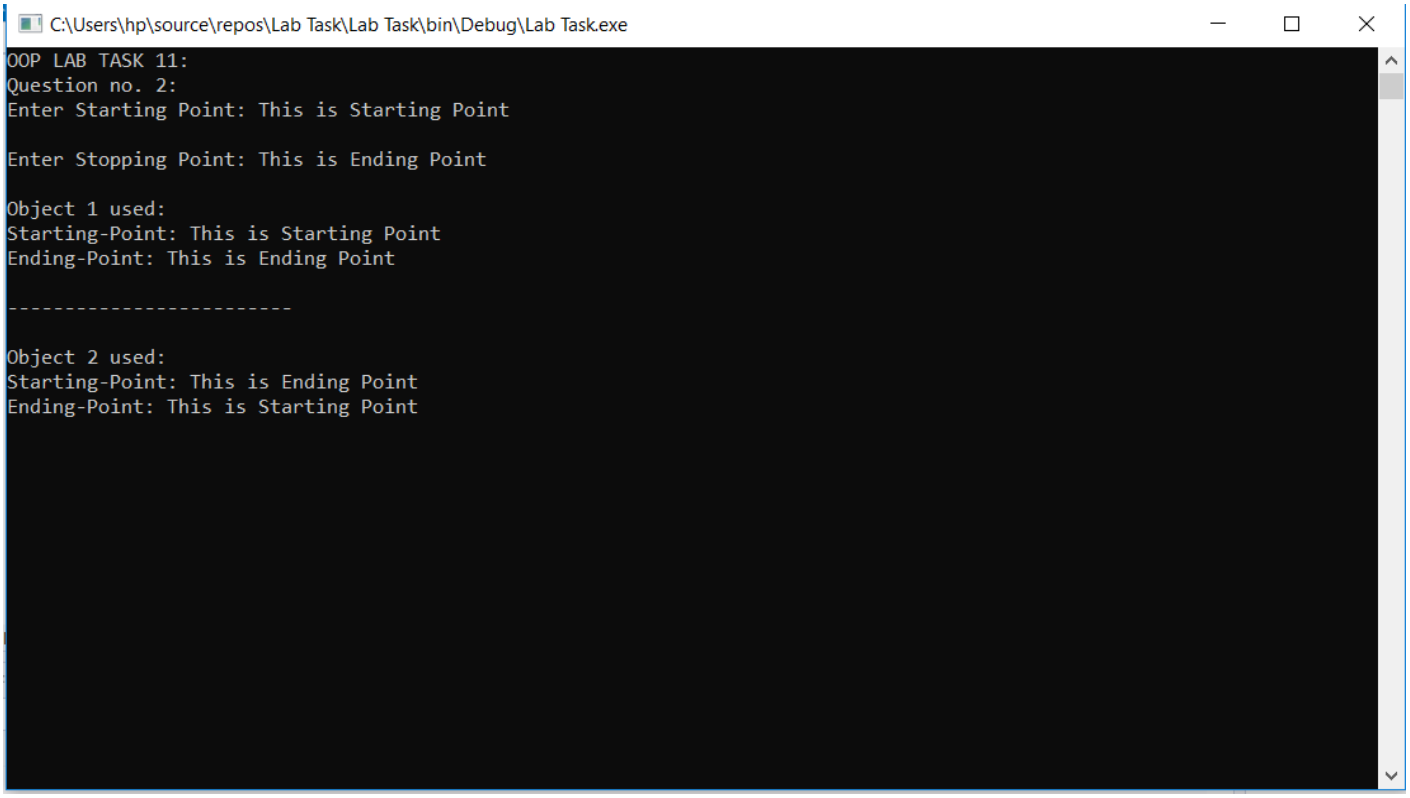


```
Program.cs
Lab Task | Lab_Task.Program | Main(string[] args)
0 references
static void Main(string[] args)
{
    Console.WriteLine("OOP LAB TASK 11:");
    Console.WriteLine("Question no. 2:");
    Console.Write("Enter Starting Point: ");
    string Start = Console.ReadLine();
    Console.Write("\nEnter Stopping Point: ");
    string Stop = Console.ReadLine();
    Train obj = new Train();
    Console.WriteLine("\nObject 1 used:");
    obj.EngineWork(Start, Stop);
    string Work;
    Work = Start;
    Start = Stop;
    Stop = Work;
    Console.WriteLine("\n-------------------------");
    ReverseTrain obj2 = new ReverseTrain();
    Console.WriteLine("\nObject 2 used:");
    obj2.EngineWork(Start, Stop); //EngineWork method eassily called because of inheritance
    Console.ReadKey();
}
}
3 references
class Train
{
2 references
public void EngineWork(string Source, string Destination)
{
    Console.WriteLine("Starting-Point: " + Source);
    Console.WriteLine("Ending-Point: " + Destination);
}
90 % | No issues found | Ln: 25 | Ch: 26 | SPC | CRLF
Output
Show output from: Debug
'Lab Task.exe' (CLR v4.0.30319: DefaultDomain): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_32\mscorlib\v4.0_4.0.0.0__b77a5c561934e089\mscorlib.dll'. Skipped loading
'Lab Task.exe' (CLR v4.0.30319: DefaultDomain): Loaded 'C:\Users\hp\source\repos\Lab Task\Lab Task\bin\Debug\Lab Task.exe'. Symbols loaded.
The program '[596] Lab Task.exe' has exited with code -1073741510 (0xc000013a).
```



```
Program.cs
Lab Task | Lab_Task.Program | Main(string[] args)
    Console.Write("\nEnter Stopping Point: ");
    string Stop = Console.ReadLine();
    Train obj = new Train();
    Console.WriteLine("\nObject 1 used:");
    obj.EngineWork(Start, Stop);
    string Work;
    Work = Start;
    Start = Stop;
    Stop = Work;
    Console.WriteLine("\n-------------------------");
    ReverseTrain obj2 = new ReverseTrain();
    Console.WriteLine("\nObject 2 used:");
    obj2.EngineWork(Start, Stop); //EngineWork method eassily called because of inheritance
    Console.ReadKey();
}
}
3 references
class Train
{
2 references
public void EngineWork(string Source, string Destination)
{
    Console.WriteLine("Starting-Point: " + Source);
    Console.WriteLine("Ending-Point: " + Destination);
}
}
2 references
class ReverseTrain : Train
{
}
}
90 % | No issues found | Ln: 25 | Ch: 26 | SPC | CRLF
Output
Show output from: Debug
'Lab Task.exe' (CLR v4.0.30319: DefaultDomain): Loaded 'C:\Windows\Microsoft.Net\assembly\GAC_32\mscorlib\v4.0_4.0.0.0__b77a5c561934e089\mscorlib.dll'. Skipped loading
'Lab Task.exe' (CLR v4.0.30319: DefaultDomain): Loaded 'C:\Users\hp\source\repos\Lab Task\Lab Task\bin\Debug\Lab Task.exe'. Symbols loaded.
The program '[596] Lab Task.exe' has exited with code -1073741510 (0xc000013a).
```

Output:



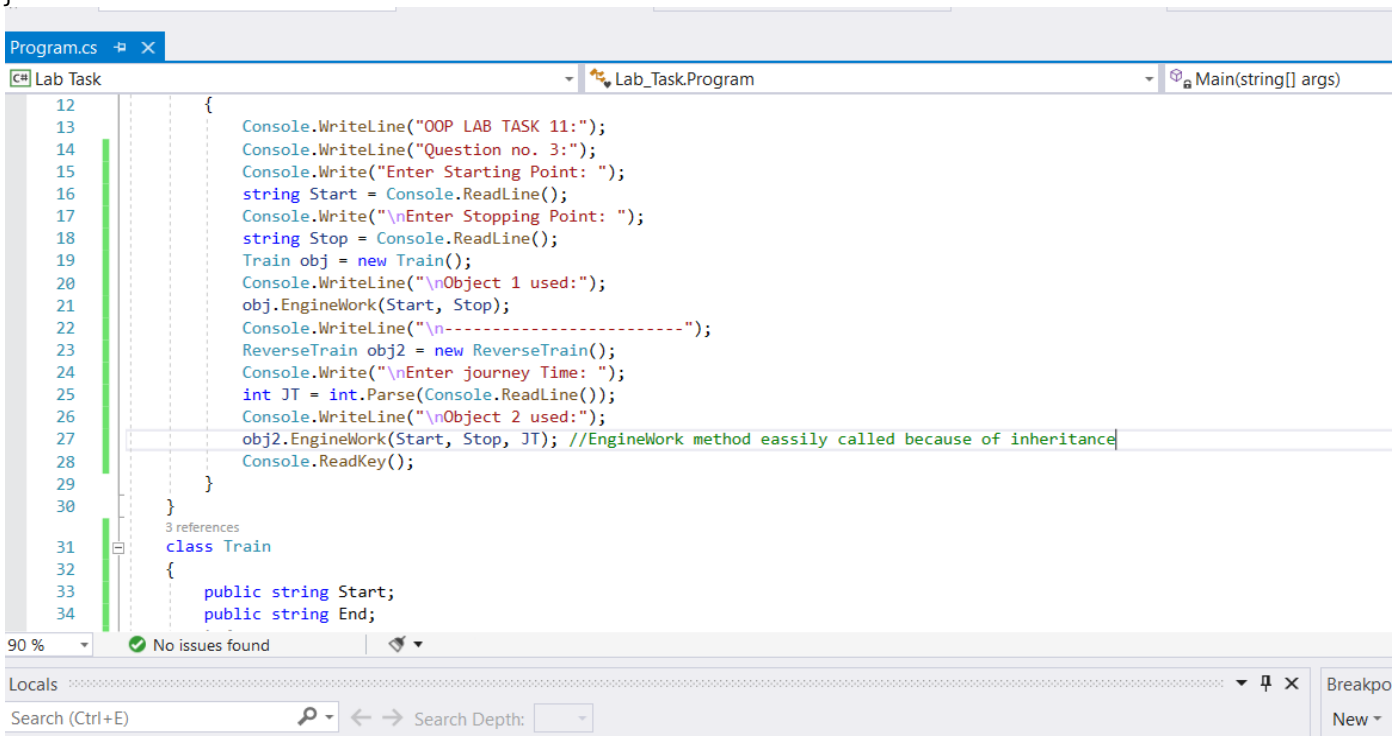
Question no. 3:

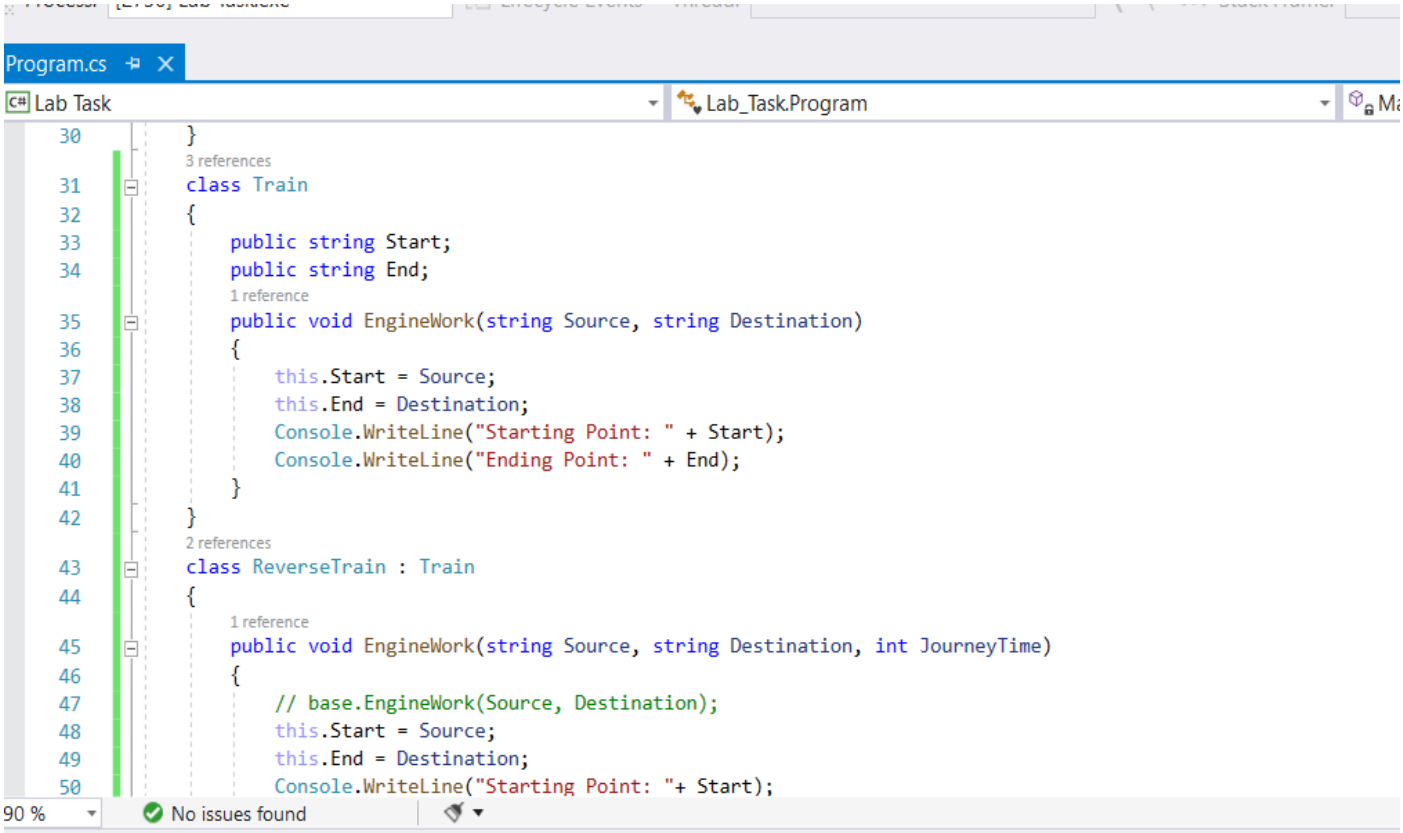
Inputted Code:

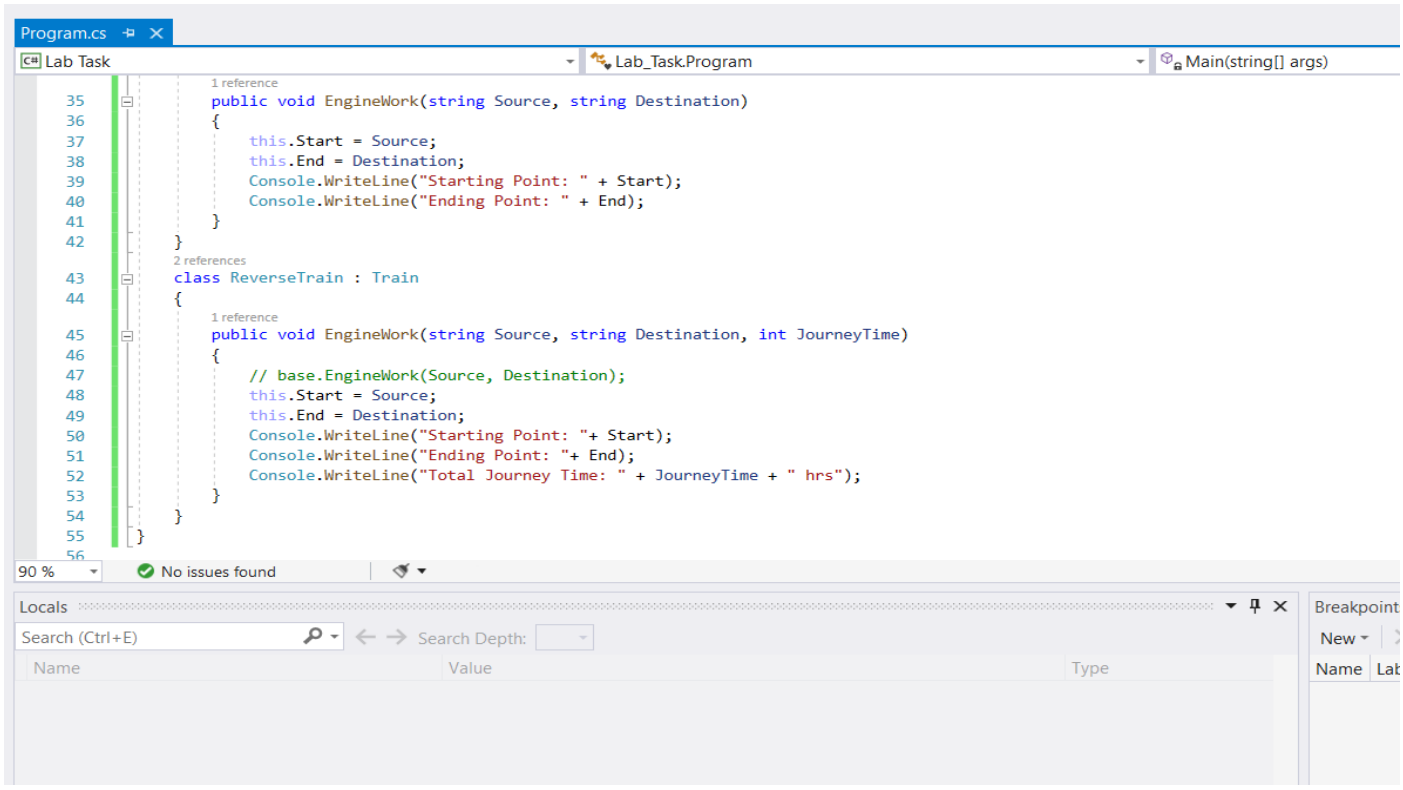
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace Lab_Task
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("OOP LAB TASK 11:");
            Console.WriteLine("Question no. 3:");
            Console.Write("Enter Starting Point: ");
            string Start = Console.ReadLine();
            Console.Write("\nEnter Stopping Point: ");
            string Stop = Console.ReadLine();
            Train obj = new Train();
            Console.WriteLine("\nObject 1 used:");
            obj.EngineWork(Start, Stop);
            Console.WriteLine("\n-------------------------");
            ReverseTrain obj2 = new ReverseTrain();
```

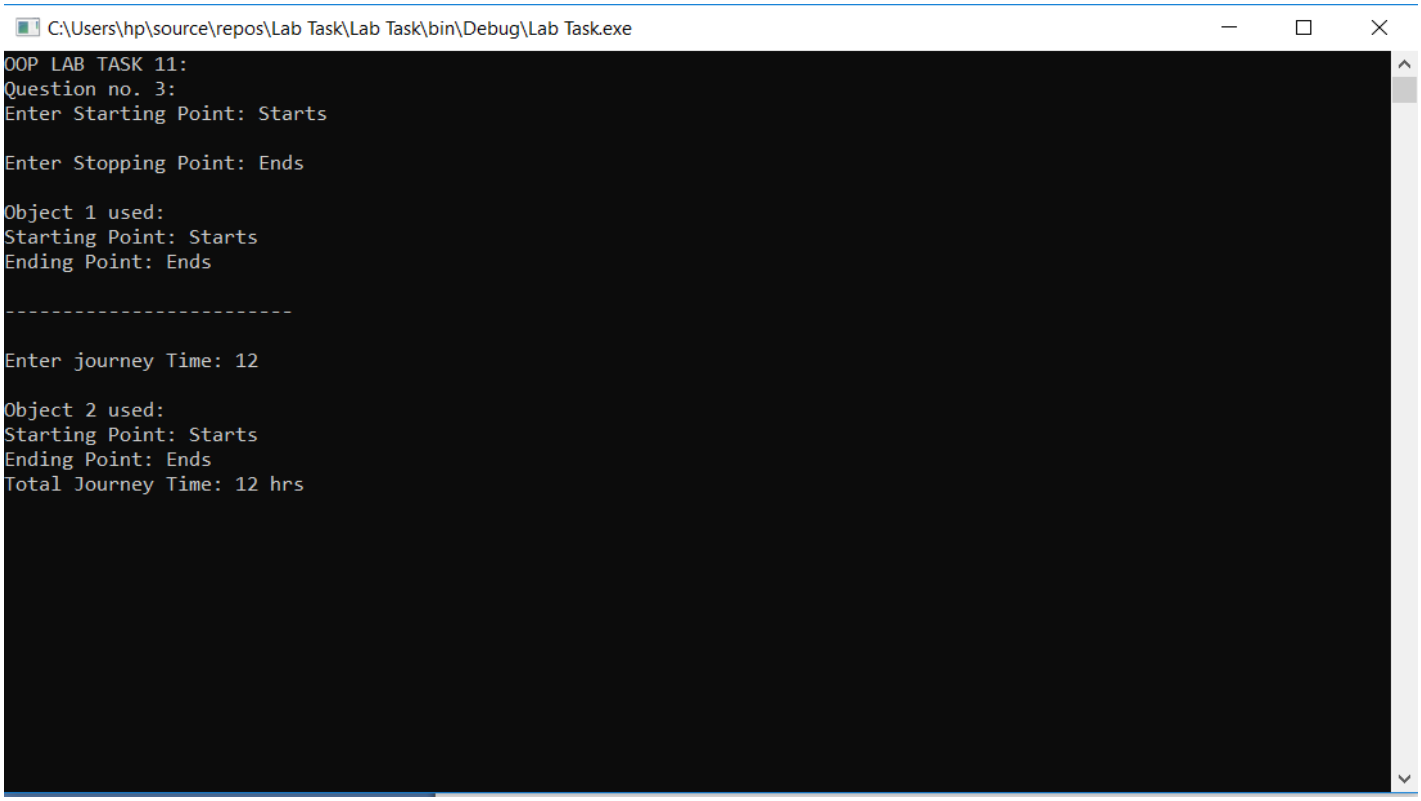
```
            Console.Write("\nEnter journey Time: ");
            int JT = int.Parse(Console.ReadLine());
            Console.WriteLine("\nObject 2 used:");
            obj2.EngineWork(Start, Stop, JT); //EngineWork method eassily called because
of inheritance
            Console.ReadKey();
        }
    }
    class Train
    {
        public string Start;
        public string End;
        public void EngineWork(string Source, string Destination)
        {
            this.Start = Source;
            this.End = Destination;
            Console.WriteLine("Starting Point: " + Start);
            Console.WriteLine("Ending Point: " + End);
        }
    }
    class ReverseTrain : Train
    {
        public void EngineWork(string Source, string Destination, int JourneyTime)
        {
            // base.EngineWork(Source, Destination);
            this.Start = Source;
            this.End = Destination;
            Console.WriteLine("Starting Point: "+ Start);
            Console.WriteLine("Ending Point: "+ End);
            Console.WriteLine("Total Journey Time: " + JourneyTime + " hrs");
        }
    }
}
```




Program.cs
Lab Task
Lab_Task.Program
30 }
3 references
31 class Train
32 {
33 public string Start;
34 public string End;
1 reference
35 public void EngineWork(string Source, string Destination)
36 {
37 this.Start = Source;
38 this.End = Destination;
39 Console.WriteLine("Starting Point: " + Start);
40 Console.WriteLine("Ending Point: " + End);
41 }
42 }
2 references
43 class ReverseTrain : Train
44 {
1 reference
45 public void EngineWork(string Source, string Destination, int JourneyTime)
46 {
47 // base.EngineWork(Source, Destination);
48 this.Start = Source;
49 this.End = Destination;
50 Console.WriteLine("Starting Point: "+ Start);
90 %
No issues found
Locals
Search (Ctrl+E)
Search Depth:


Program.cs
Lab Task
Lab_Task.Program
Main(string[] args)
1 reference
35 public void EngineWork(string Source, string Destination)
36 {
37 this.Start = Source;
38 this.End = Destination;
39 Console.WriteLine("Starting Point: " + Start);
40 Console.WriteLine("Ending Point: " + End);
41 }
42 }
2 references
43 class ReverseTrain : Train
44 {
1 reference
45 public void EngineWork(string Source, string Destination, int JourneyTime)
46 {
47 // base.EngineWork(Source, Destination);
48 this.Start = Source;
49 this.End = Destination;
50 Console.WriteLine("Starting Point: "+ Start);
51 Console.WriteLine("Ending Point: "+ End);
52 Console.WriteLine("Total Journey Time: " + JourneyTime + " hrs");
53 }
54 }
55 }
90 %
No issues found
Locals
Search (Ctrl+E)
Search Depth:
Name
Value
Type
Breakpoint
New
Name

Output:



Question no. 4:

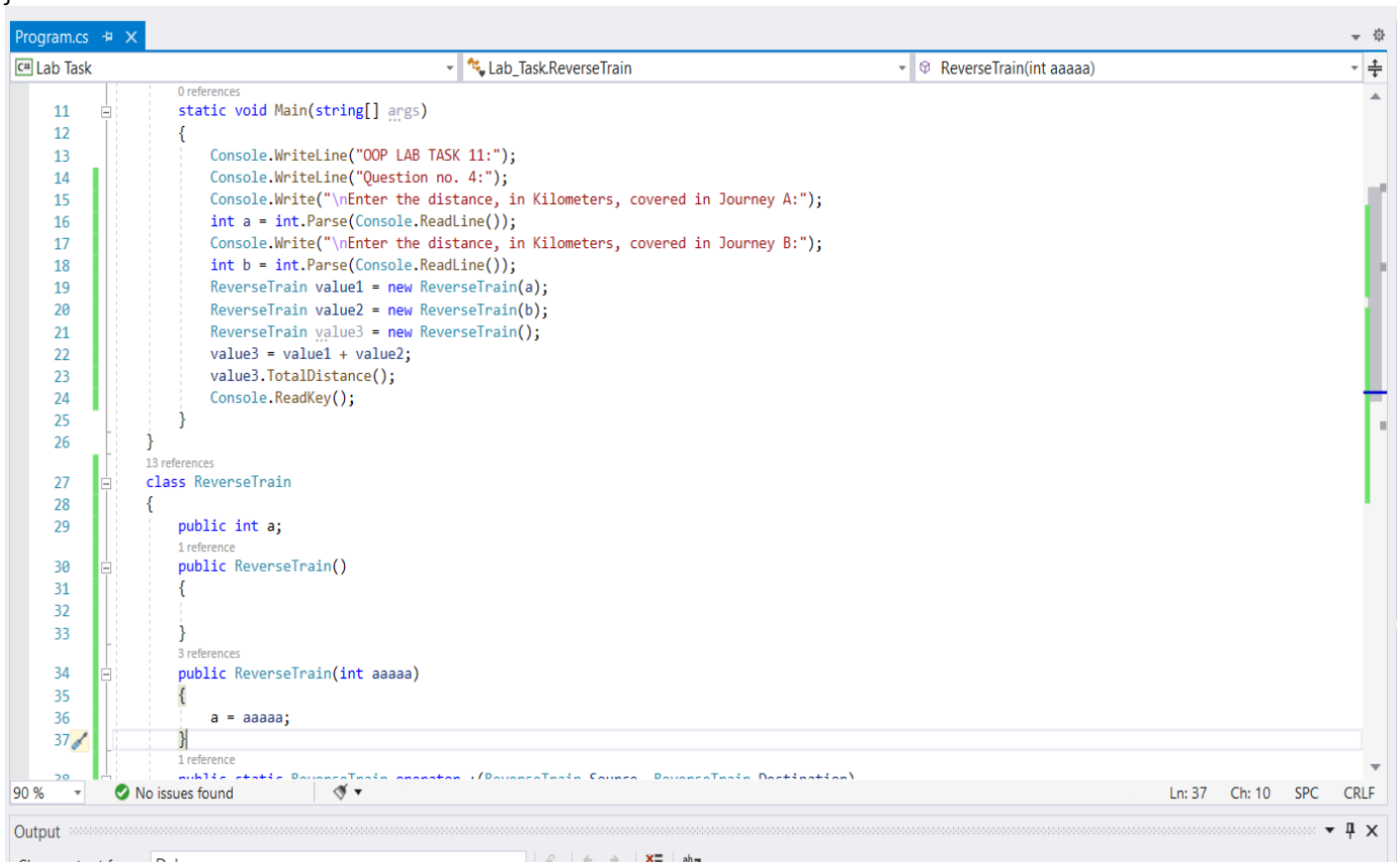
Inputted Code:

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

namespace Lab_Task
{
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("OOP LAB TASK 11:");
            Console.WriteLine("Question no. 4:");
            Console.Write("\nEnter the distance, in Kilometers, covered in Journey A:");
            int a = int.Parse(Console.ReadLine());
            Console.Write("\nEnter the distance, in Kilometers, covered in Journey B:");
            int b = int.Parse(Console.ReadLine());
            ReverseTrain value1 = new ReverseTrain(a);
            ReverseTrain value2 = new ReverseTrain(b);
            ReverseTrain value3 = new ReverseTrain();
            value3 = value1 + value2;
            value3.TotalDistance();
```

```
            Console.ReadKey();
        }
    }
    class ReverseTrain
    {
        public int a;
        public ReverseTrain()
        {

        }
        public ReverseTrain(int aaaaa)
        {
            a = aaaaa;
        }
        public static ReverseTrain operator +(ReverseTrain Source, ReverseTrain
Destination)
        {
            // base.EngineWork(Source, Destination);
            ReverseTrain rev3 = new ReverseTrain(0);
            rev3.a = Source.a + Destination.a;
            return rev3;
        }
        public void TotalDistance()
        {
            Console.WriteLine("Total Distance: {0} Kilometers", a);
        }
    }
}
```



```
Program.cs
Lab Task | Lab_Task.ReverseTrain | ReverseTrain(int aaaaa)
26      }
        13 references
27      class ReverseTrain
28      {
29          public int a;
            1 reference
30          public ReverseTrain()
31          {
32
33          }
            3 references
34          public ReverseTrain(int aaaaa)
35          {
36              a = aaaaa;
37          }
            1 reference
38          public static ReverseTrain operator +(ReverseTrain Source, ReverseTrain Destination)
39          {
40              // base.EngineWork(Source, Destination);
41              ReverseTrain rev3 = new ReverseTrain(0);
42              rev3.a = Source.a + Destination.a;
43              return rev3;
44          }
            1 reference
45          public void TotalDistance()
46          {
47              Console.WriteLine("Total Distance: {0} Kilometers", a);
48          }
49      }
50  }
51
90 %   No issues found                                   Ln: 37   Ch: 10   SPC   CRLF
```

Output:

```
C:\Users\hp\source\repos\Lab Task\Lab Task\bin\Debug\Lab Task.exe
OOP LAB TASK 11:
Question no. 4:

Enter the distance, in Kilometers, covered in Journey A:12

Enter the distance, in Kilometers, covered in Journey B:54
Total Distance: 66 Kilometers
```