Date : 20-08-24

1.
Code :

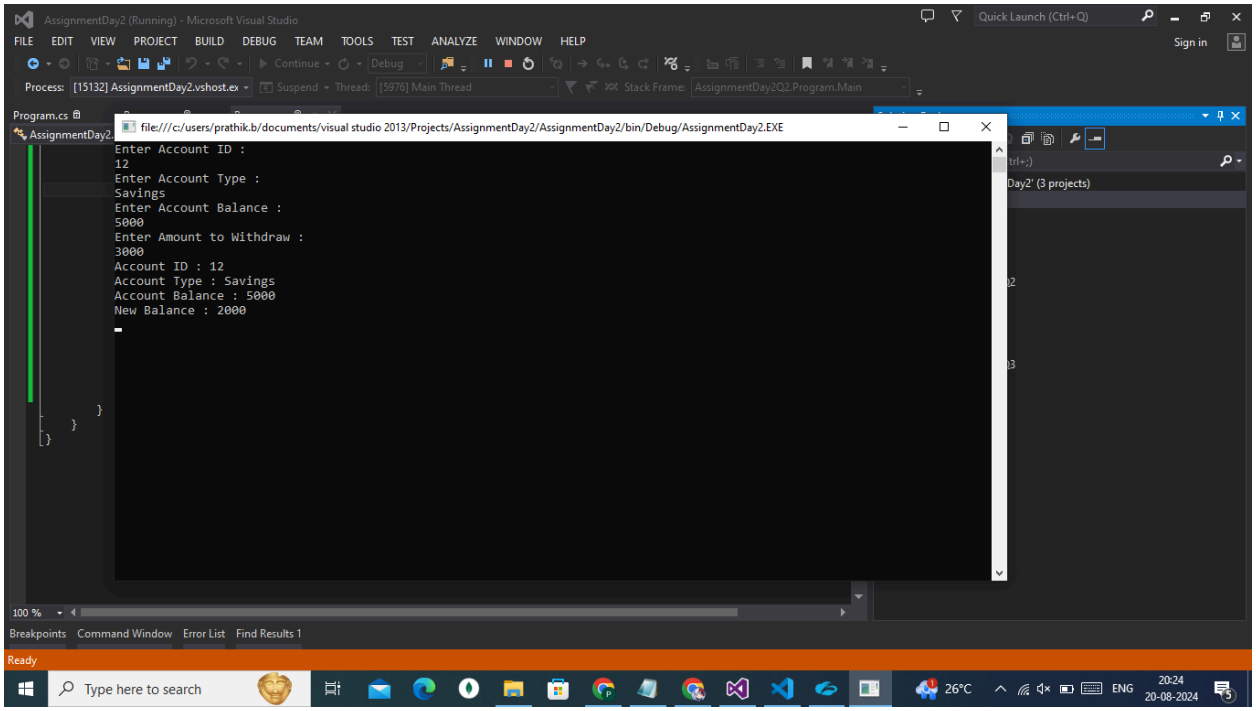
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace AssignmentDay2
{

    internal class Account
    {
        int id;
        string accountType;
        double balance;

        public Account()
        {

        }

        public Account(int id , string accType , double balance)
        {
            this.AccID = id;
            this.AccType = accType;
            this.AccBalance = balance;
        }

        public int AccID
        {
            get
            {
                return id;
```

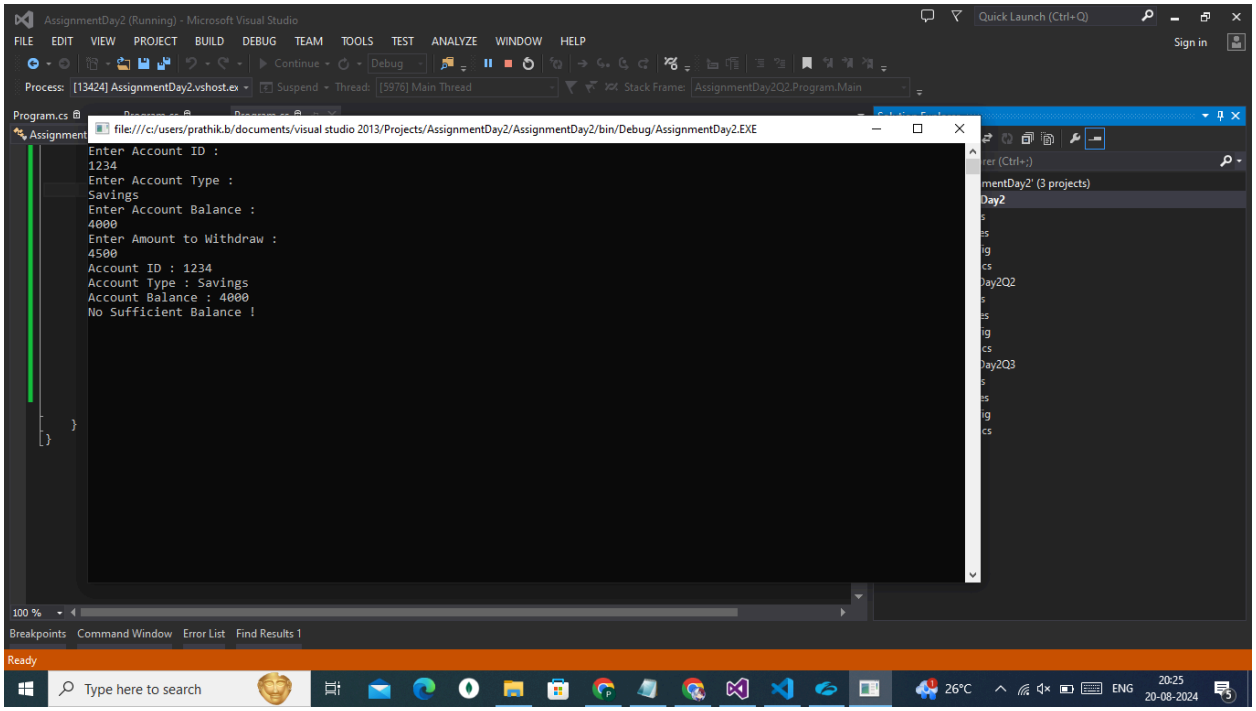
```
    }
    set
    {
        id = value;
    }
}

public string AccType
{
    get
    {
        return accountType;
    }
    set
    {
        accountType = value;
    }
}

public double AccBalance
{
    get
    {
        return balance;
    }
    set
    {
        balance = value;
    }
}

public bool Withdraw(double amt)
{
    if (AccBalance > amt)
    {
        AccBalance -= amt;
```

```
            return true;
        }
        return false;
    }

    public string getDetails()
    {
        return  "Account ID : " + AccID + "\nAccount Type : " + AccType + "\nAccount
Balance : " + AccBalance;
    }

}

internal class Program
{
    static void Main(string[] args)
    {
        Console.WriteLine("Enter Account ID : ");
        int id = int.Parse(Console.ReadLine());
        Console.WriteLine("Enter Account Type : ");
        string type =Console.ReadLine();
        Console.WriteLine("Enter Account Balance : ");
        double balance = Convert.ToDouble(Console.ReadLine());
        Account ac = new Account(id,type,balance);
        Console.WriteLine("Enter Amount to Withdraw : ");
        double amount = Convert.ToDouble(Console.ReadLine());
        Console.WriteLine(ac.getDetails());
        if (ac.Withdraw(amount))
        {
            Console.WriteLine("New Balance : "+ac.AccBalance);
        }
        else
        {
            Console.WriteLine("No Sufficient Balance ! ");
        }
        Console.ReadKey();
```

```
        }
    }
}
```

Output :


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2/bin/Debug/AssignmentDay2.EXE
Enter Account ID :
12
Enter Account Type :
Savings
Enter Account Balance :
5000
Enter Amount to Withdraw :
3000
Account ID : 12
Account Type : Savings
Account Balance : 5000
New Balance : 2000


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2/bin/Debug/AssignmentDay2.EXE
Enter Account ID :
1234
Enter Account Type :
Savings
Enter Account Balance :
4000
Enter Amount to Withdraw :
4500
Account ID : 1234
Account Type : Savings
Account Balance : 4000
No Sufficient Balance !

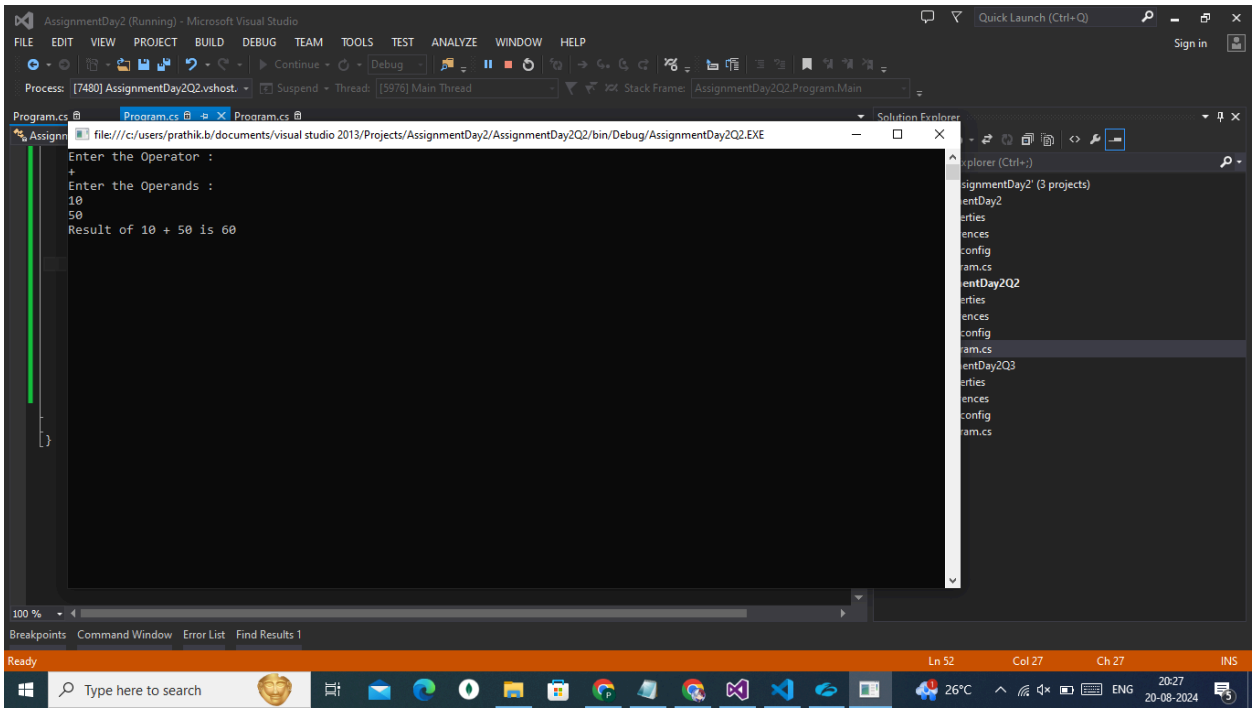
2.

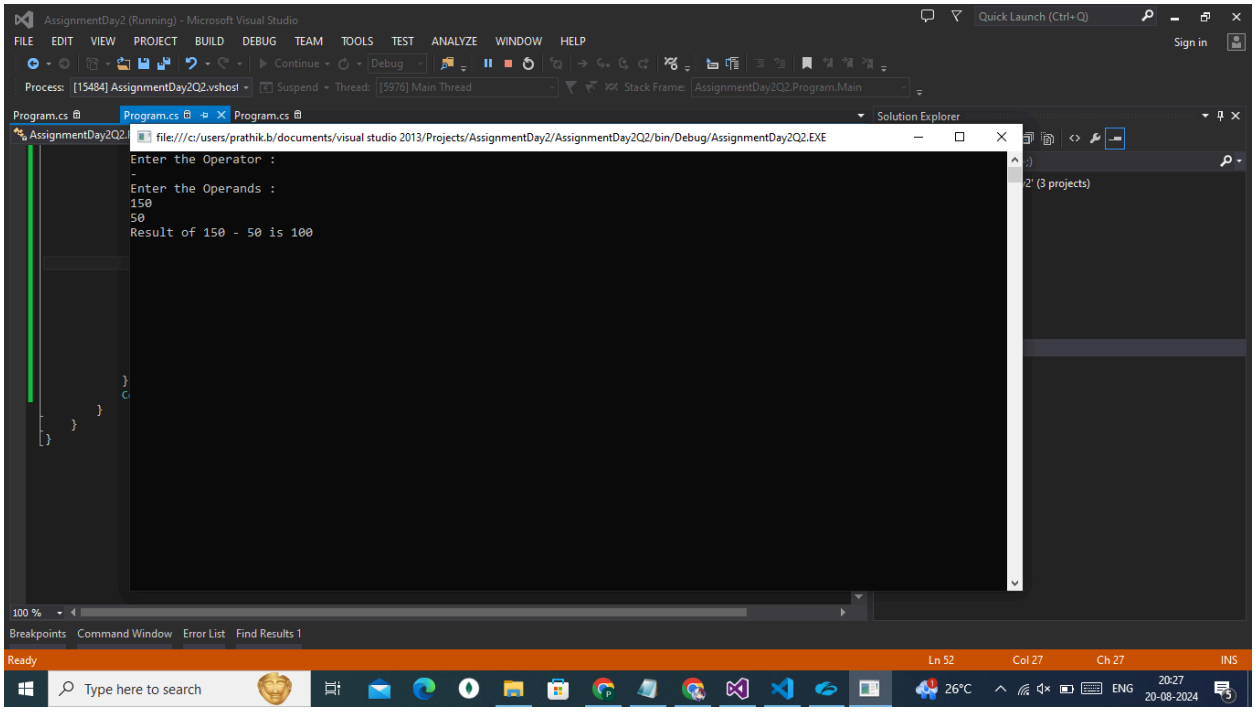
Code :

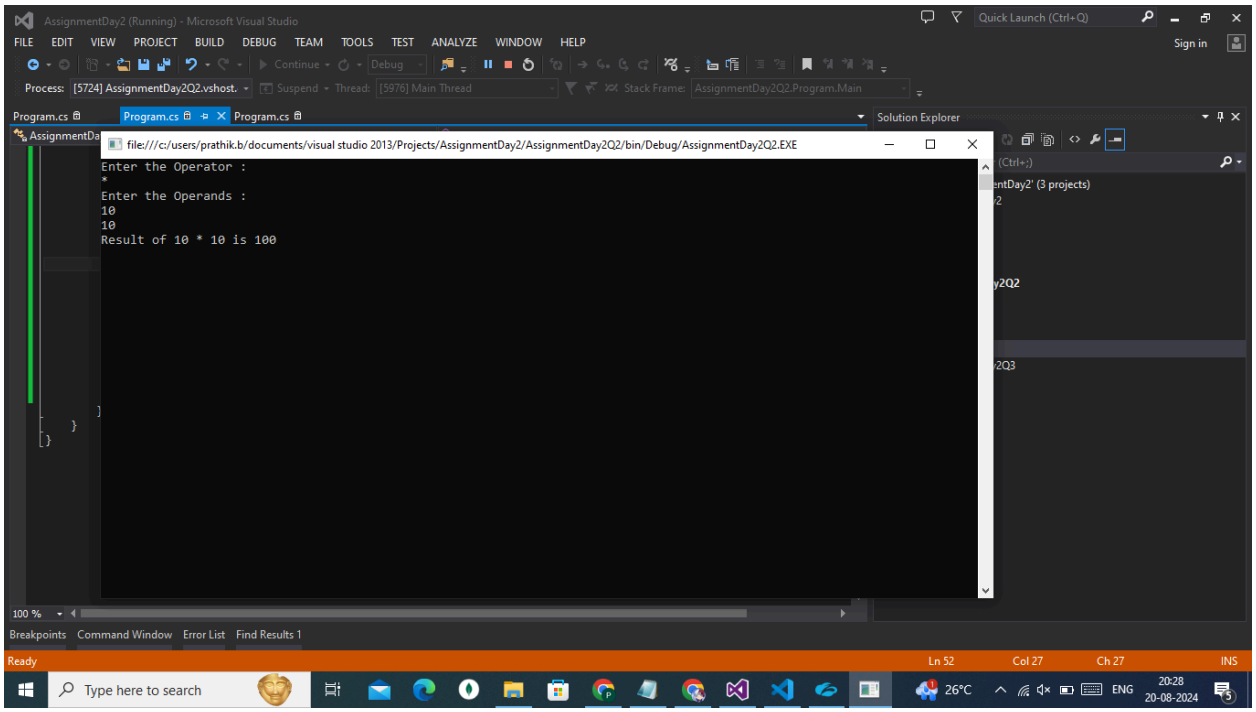
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace AssignmentDay2Q2
{

    class Calculator
    {
        public int Addition(int a, int b)
        {
            return a+b;
        }
        public int Subtraction(int a, int b)
        {
            return a-b;
        }
        public int Multiplication(int a, int b)
        {
            return a*b;
        }
        public double Division(int a, int b, out double rem)
        {
            rem = a%b;
            return Convert.ToDouble(a/b);
        }
    }

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

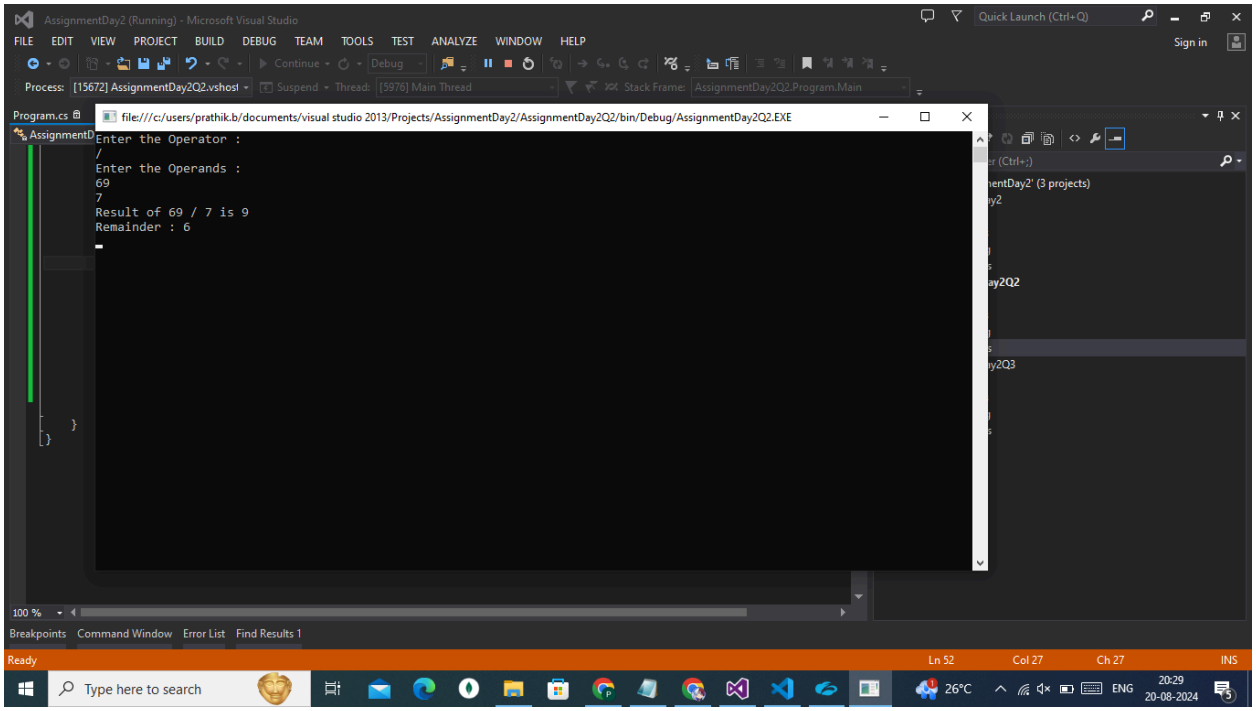
```
            Calculator ca = new Calculator();
            Console.WriteLine("Enter the Operator : ");
            char op = Convert.ToChar(Console.ReadLine());
            Console.WriteLine("Enter the Operands : ");
            int a = int.Parse(Console.ReadLine());
            int b = int.Parse(Console.ReadLine());
            double c;
            switch (op)
            {
               case '+' :
                  Console.WriteLine("Result of " + a + " " + op + " " + b + " is " + ca.Addition(a,
b));
                  break;
               case '-':
                  Console.WriteLine("Result of " + a + " " + op + " " + b + " is " + ca.Subtraction(a,
b));
                  break;
               case '*':
                  Console.WriteLine("Result of " + a + " " + op + " " + b + " is " +
ca.Multiplication(a, b));
                  break;
               case '/':
                  Console.WriteLine("Result of " + a + " " + op + " " + b + " is " + ca.Division(a, b,
out c));
                  Console.WriteLine("Remainder : "+c);
                  break;
               default :
                  Console.WriteLine("Invalid Operator");
                  break;
            }
            Console.ReadKey();
         }
      }
}
```

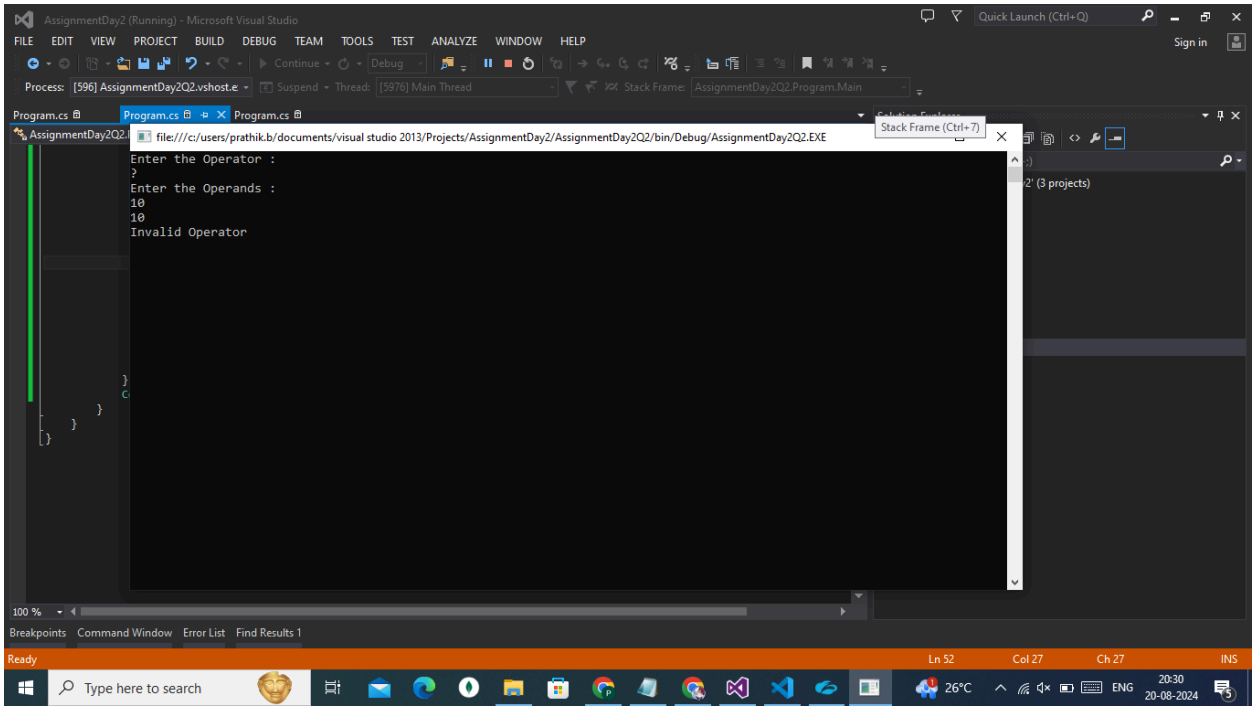
Output :


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2Q2/bin/Debug/AssignmentDay2Q2.EXE
Enter the Operator :
+
Enter the Operands :
10
50
Result of 10 + 50 is 60


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2Q2/bin/Debug/AssignmentDay2Q2.EXE
Enter the Operator :
-
Enter the Operands :
150
50
Result of 150 - 50 is 100


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2Q2/bin/Debug/AssignmentDay2Q2.EXE
Enter the Operator :
*
Enter the Operands :
10
10
Result of 10 * 10 is 100
Ready
Type here to search


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2Q2/bin/Debug/AssignmentDay2Q2.EXE
Enter the Operator :
/
Enter the Operands :
69
7
Result of 69 / 7 is 9
Remainder : 6
Ready
Type here to search



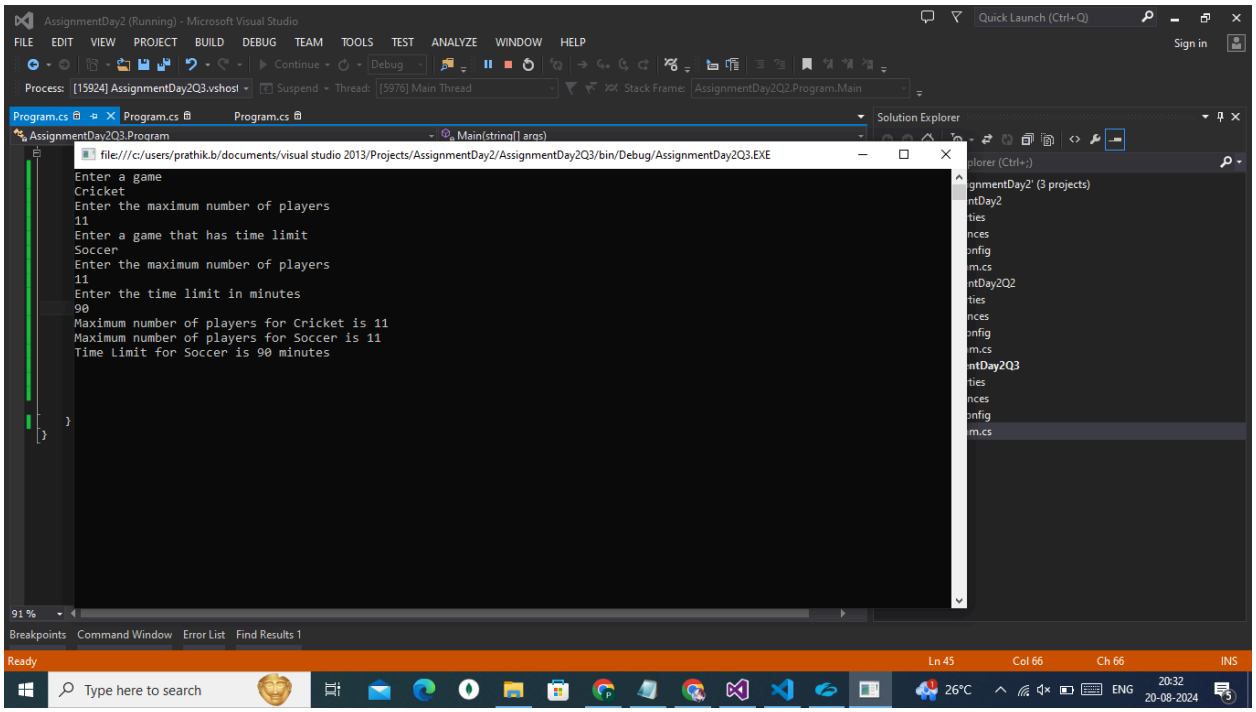
3.

Code :

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

namespace AssignmentDay2Q3
{

    class Game
    {
        public string Name { get; set; }
        public int MaxNumPlayers { get; set; }

        public override string ToString()
        {
            return "Maximum number of players for "+ Name + " is "+ MaxNumPlayers;
        }
```

```
    }

    class GameWithTimeLimit : Game
    {
        public int TimeLimit { get; set; }

        public override string ToString()
        {
            Console.WriteLine(base.ToString());
            return "Time Limit for "+Name+" is "+TimeLimit+" minutes";
        }
    }
    class Program
    {
        static void Main(string[] args)
        {
            Console.WriteLine("Enter a game");
            string Name = Console.ReadLine();
            Console.WriteLine("Enter the maximum number of players");
            int maxPlayers = int.Parse(Console.ReadLine());
            Game game = new Game { Name = Name, MaxNumPlayers = maxPlayers };
            Console.WriteLine("Enter a game that has time limit");
            string gameName = Console.ReadLine();
            Console.WriteLine("Enter the maximum number of players");
            int Players = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the time limit in minutes");
            int timeLimit = int.Parse(Console.ReadLine());
            GameWithTimeLimit gameWithTimeLimit = new GameWithTimeLimit{Name =
gameName,MaxNumPlayers = Players,
                                                    TimeLimit = timeLimit};
            Console.WriteLine(game.ToString());
            Console.WriteLine(gameWithTimeLimit.ToString());
            Console.ReadKey();
        }
    }
}
```

Output :


AssignmentDay2 (Running) - Microsoft Visual Studio
file:///c:/users/prathik.b/documents/visual studio 2013/Projects/AssignmentDay2/AssignmentDay2Q3/bin/Debug/AssignmentDay2Q3.EXE
Enter a game
Cricket
Enter the maximum number of players
11
Enter a game that has time limit
Soccer
Enter the maximum number of players
11
Enter the time limit in minutes
90
Maximum number of players for Cricket is 11
Maximum number of players for Soccer is 11
Time Limit for Soccer is 90 minutes
Solution Explorer
Type here to search