Day 2

Name : Siddarth S
Date : 20/08/2024

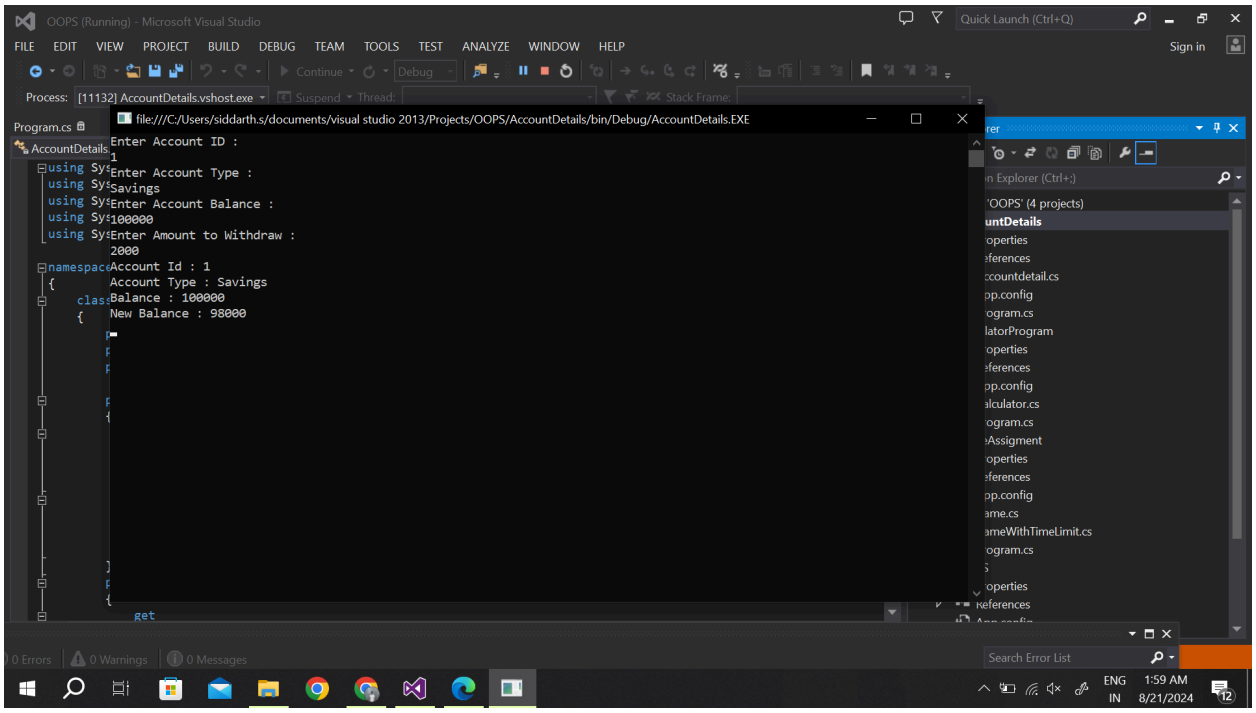
Program 1:

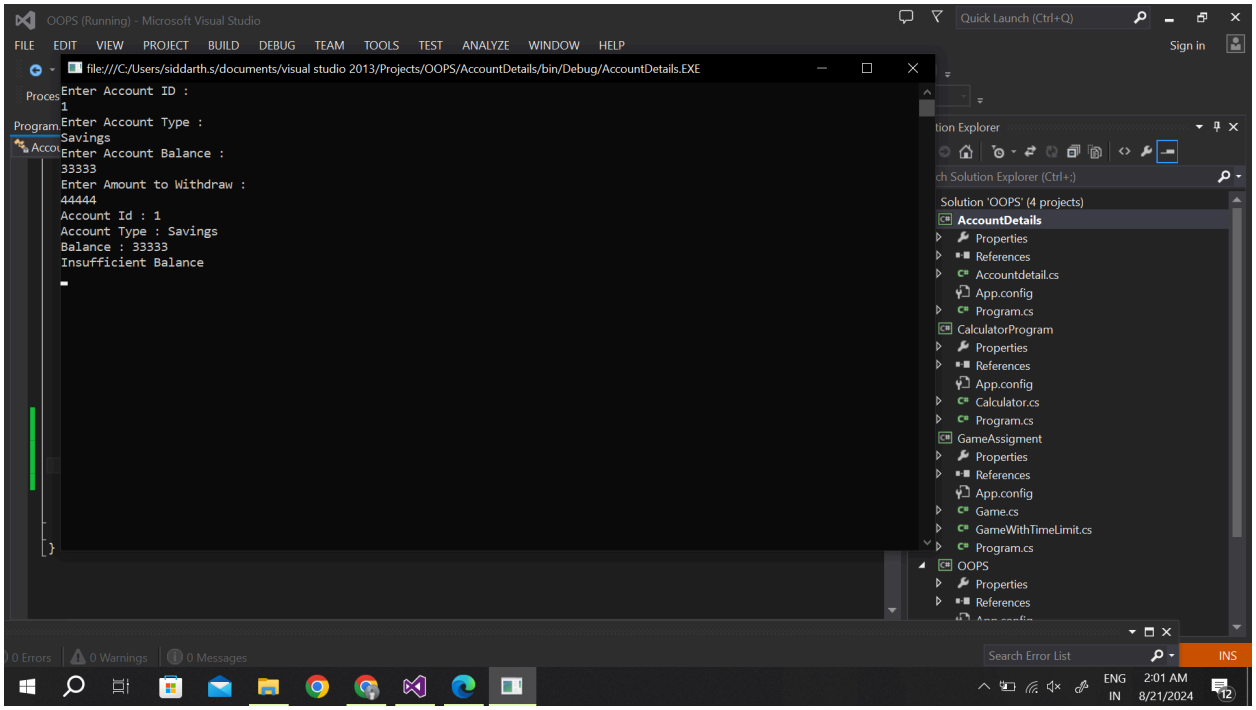
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace AccountDetails
{
   class Accountdetail
   {
      private int id;
      private string accountType;
      private double 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 Accountdetail() { }

    public Accountdetail(int id, string accountType, double balance)
    {
        this.id = id;
        this.accountType = accountType;
        this.balance = balance;
    }
    public bool WithDraw(double amount)
    {
        if (amount < accBalance)
        {
            accBalance = accBalance -amount;
            return true;
        }
        else
        {
            return false;
        }
    }
    public string getDetails()
    {
        return "Account Id : " + accId + "\nAccount Type : " + accType + "\nBalance : " +
accBalance;
    }
    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());
        Accountdetail ac = new Accountdetail(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);
            }
            Console.ReadKey();
        }
    }
}
```

Output:





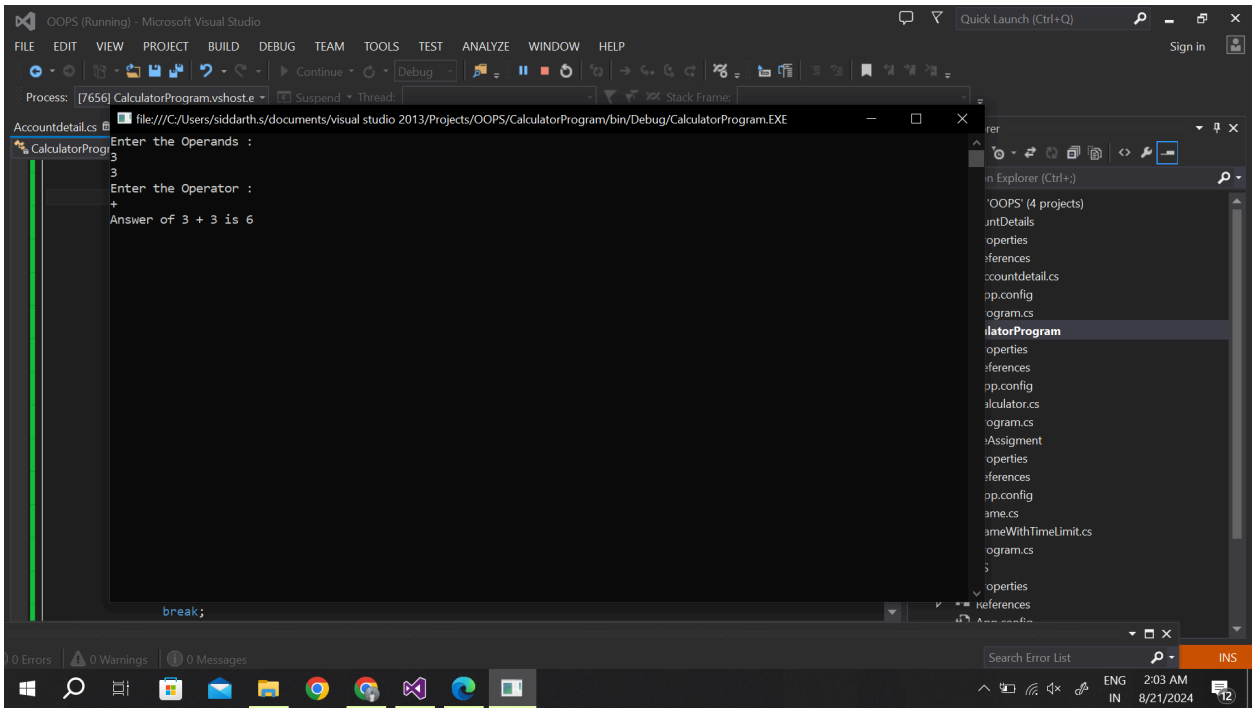
Program 2

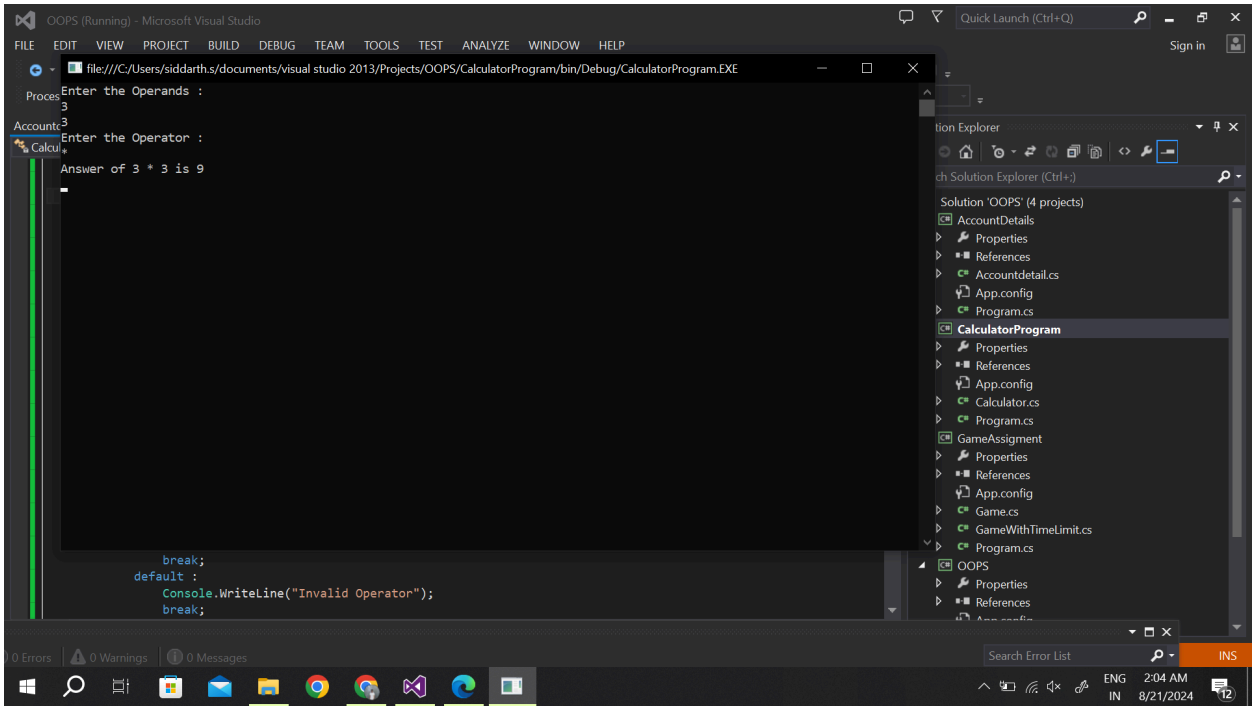
```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Text;
using System.Threading.Tasks;

namespace CalculatorProgram
{
   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(double a, double b, out double remainder)
      {
```

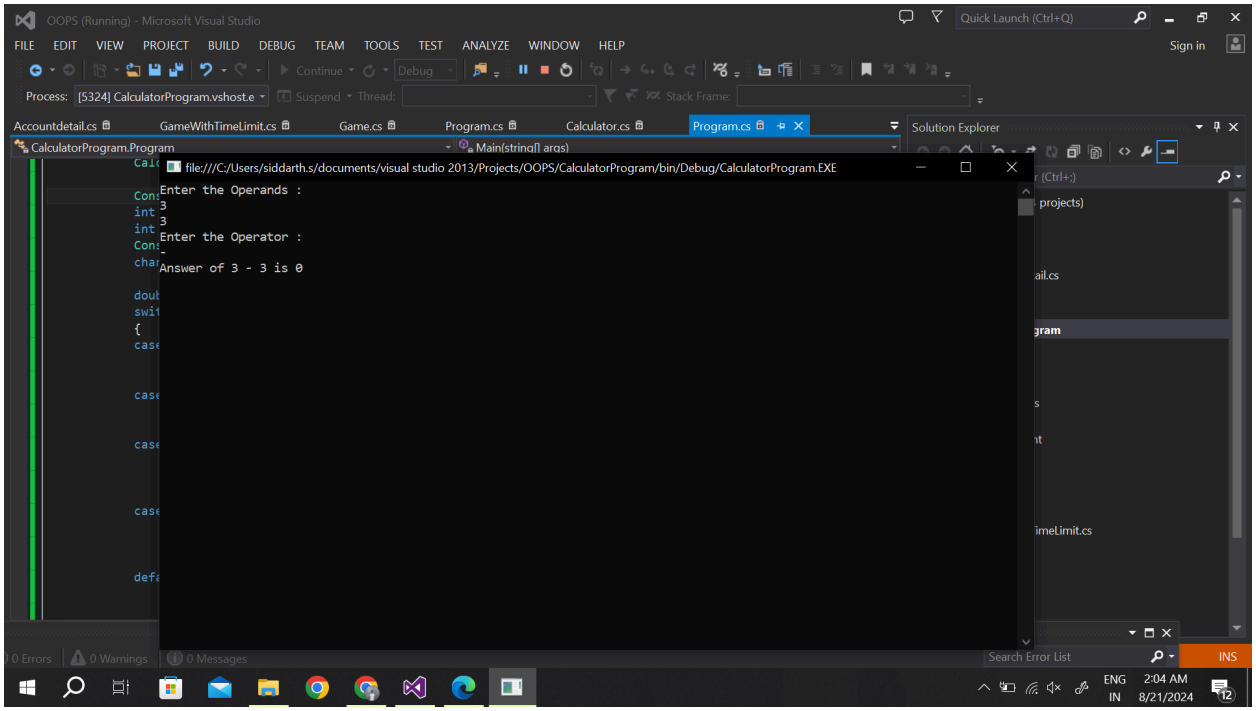
```
            remainder = a % b;
            return a/b;
        }

    }
}



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

namespace CalculatorProgram
{
    class Program
    {
        static void Main(string[] args)
        {
            Calculator cal = new Calculator();

            Console.WriteLine("Enter the Operands : ");
            int a = int.Parse(Console.ReadLine());
            int b = int.Parse(Console.ReadLine());
            Console.WriteLine("Enter the Operator : ");
            char oper = Convert.ToChar(Console.ReadLine());

            double c;
            switch (oper)
            {
            case '+' :
                Console.WriteLine("Answer of " + a + " " + oper + " " + b + " is " + cal.Addition(a,b));
                break;
            case '-':
                Console.WriteLine("Answer of " + a + " " + oper + " " + b + " is " +
cal.Subtraction(a,b));
                break;
            case '*':
                Console.WriteLine("Answer of " + a + " " + oper + " " + b + " is " +
                cal.Multiplication(a, b));
                break;
            case '/':
```

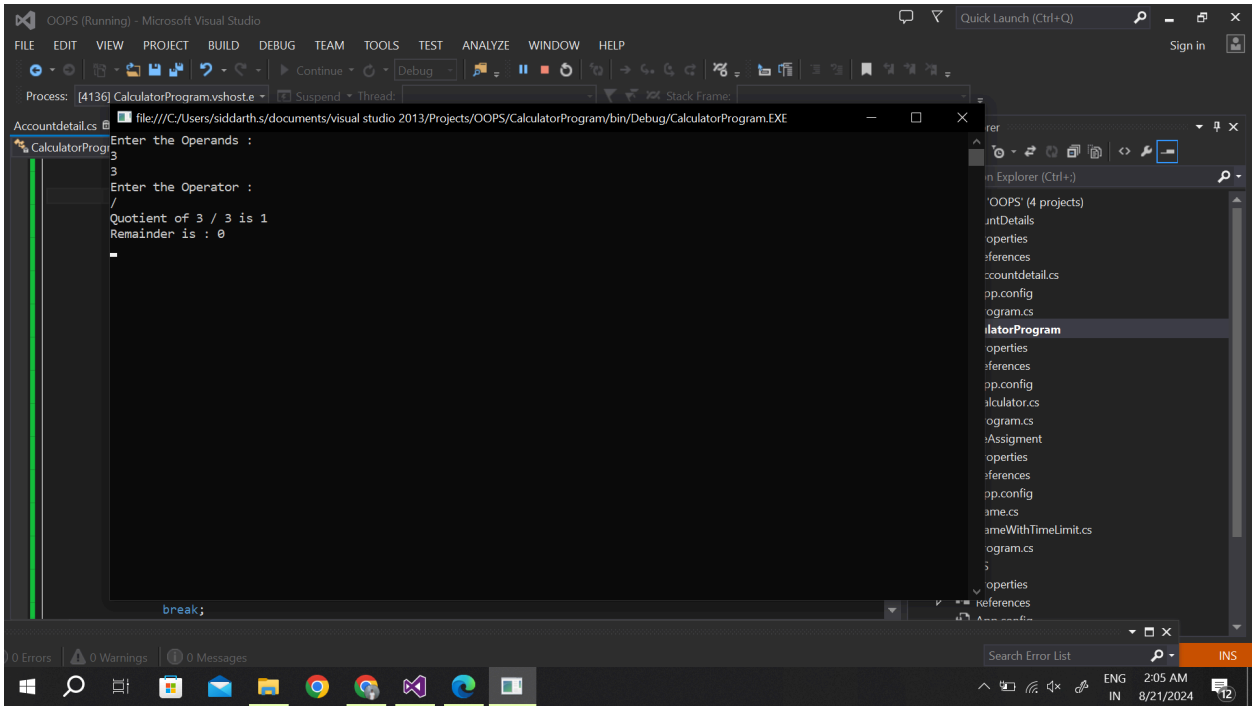
```
            Console.WriteLine("Quotient of " + a + " " + oper + " " + b + " is " + cal.Division(a,
b,out c));
            Console.WriteLine("Remainder is : "+c);
            break;
        default :
            Console.WriteLine("Invalid Operator");
            break;
        }
        Console.ReadKey();
    }
  }
}
```

Output:




OOPS (Running) - Microsoft Visual Studio
file:///C:/Users/siddarth.s/documents/visual studio 2013/Projects/OOPS/CalculatorProgram/bin/Debug/CalculatorProgram.EXE
Enter the Operands :
3
3
Enter the Operator :
Answer of 3 * 3 is 9
Solution 'OOPS' (4 projects)
AccountDetails
CalculatorProgram
GameAssigment
OOPS


OOPS (Running) - Microsoft Visual Studio
file:///C:/Users/siddarth.s/documents/visual studio 2013/Projects/OOPS/CalculatorProgram/bin/Debug/CalculatorProgram.EXE
Enter the Operands :
3
3
Enter the Operator :
Answer of 3 - 3 is 0



Program 3

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

namespace GameAssigment
{
   class Program
   {
      static void Main(string[] args)
      {
         Console.WriteLine("Enter a game");
         string gameTitle = Console.ReadLine();
         Console.WriteLine("Enter the maximum number of players");
         int maxPlayerCount = int.Parse(Console.ReadLine());
         Game basicGame = new Game { Name = gameTitle, MaxNumPlayers =
maxPlayerCount };

         Console.WriteLine("Enter a game that has a time limit");
         string timedGameTitle = Console.ReadLine();
         Console.WriteLine("Enter the maximum number of players");
         int timedGamePlayerCount = int.Parse(Console.ReadLine());
         Console.WriteLine("Enter the time limit in minutes");
```

```
            int gameTimeLimit = int.Parse(Console.ReadLine());
            GameWithTimeLimit timedGame = new GameWithTimeLimit
            {
                Name = timedGameTitle,
                MaxNumPlayers = timedGamePlayerCount,
                TimeLimit = gameTimeLimit
            };

            Console.WriteLine(basicGame.ToString());
            Console.WriteLine(timedGame.ToString());
            Console.ReadKey();
        }
    }
}


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

namespace GameAssigment
{
    class GameWithTimeLimit : Game
    {
        public int TimeLimit { get; set; }
        public override string ToString()
        {
            Console.WriteLine(base.ToString());
            return "Time Limit for " + Name + " is " + TimeLimit + " minutes";
        }
    }

}

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

namespace GameAssigment
{
```

```
    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;
        }
    }
}
```