DAY-5
C#

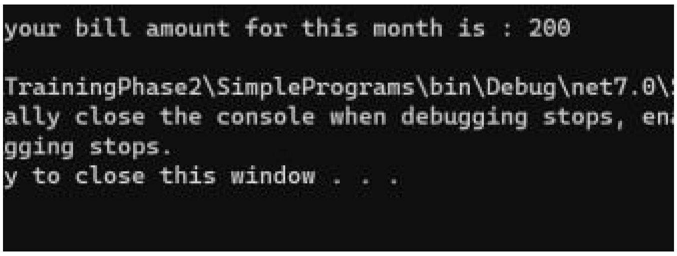
PROGRAM TO BUILD A SIMPLE ELECTRIC BILL CALCULATION SYSTEM

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

namespace simpleprograms
{
    class ElectricReading
    {
       private int consumernumber, prevreading, curreading;
        private string consumername, consumertype;

        public int Consumernumber { get => consumernumber; set => consumernumber = value; }
        public int Prevreading { get => prevreading; set => prevreading = value; }
        public int Curreading { get => curreading; set => curreading = value; }
        public string Consumername { get => consumername; set => consumername = value; }
        public string Consumertype { get => consumertype; set => consumertype = value; }

        public ElectricReading()
        {
           Consumername   = consumername;
           Consumernumber = consumernumber;
           Consumertype   = consumertype;
           Curreading     = curreading;
           Prevreading    = prevreading;
        }

        public int CalculateBill()
        {
            int billant = 0;
            if (Consumertype.Equals("domestic"))
            {
                int consumption = curreading - prevreading;
                if (consumption <= 100)
                {
                    billant = 1;
                }
                else if (consumption > 100 && consumption <= 200)
                {
                    billant = (consumption - 100) * 2;
                }
                else if (consumption > 200 && consumption <= 500)
                {
                    billant = (consumption - 100) * 5;
                }
                else if (consumption > 500)
                {
                    billant = (consumption - 100) * 10;
                }
            }
            else if (consumertype.Equals("commercial"))
            {
                int consumption = curreading - prevreading;
                if (consumption <= 100)
                {
                    billant = 10;
                }
                else if (consumption > 100 && consumption <= 200)
                {
                    billant = (consumption - 100) * 20;
                }
                else if (consumption > 200 && consumption <= 500)
                {
                    billant = (consumption - 100) * 50;
                }
                else if (consumption > 500)
                {
                    billant = (consumption - 100) * 100;
                }
            }
            return billant;
        }

        public void DisplayBillDetails()
        {
            int billant = CalculateBill();
            Console.WriteLine($"bill: {consumername} {consumernumber} {billant}");
        }
    }
}
```

program.cs

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



namespace simpleprograms
{
    class Program
    {
        static void Main(string[] args)
        {
            public void ReadConsumerData()
            {
                onsumernumber = Convert.ToInt32(Console.ReadLine());
                consumername = Console.ReadLine();
                consumertype = Console.ReadLine();
                prevreading = Convert.ToInt32(Console.ReadLine());
                curreading = Convert.ToInt32(Console.ReadLine());


            }

            ElectricReading electricReading = new
ElectricReading(aaa,1234,domestic,1000,500);
            electricReading.ReadConsumerData();

           int  billant = electricReading.CalculateBill();
            Console.WriteLine($"bill:"+
                $"{electricReading.consumernumber}{electricReading.consumername}"+
                $"{billant}");
            electricReading.DisplayBillDetails();
        }

    }
}
```

the output

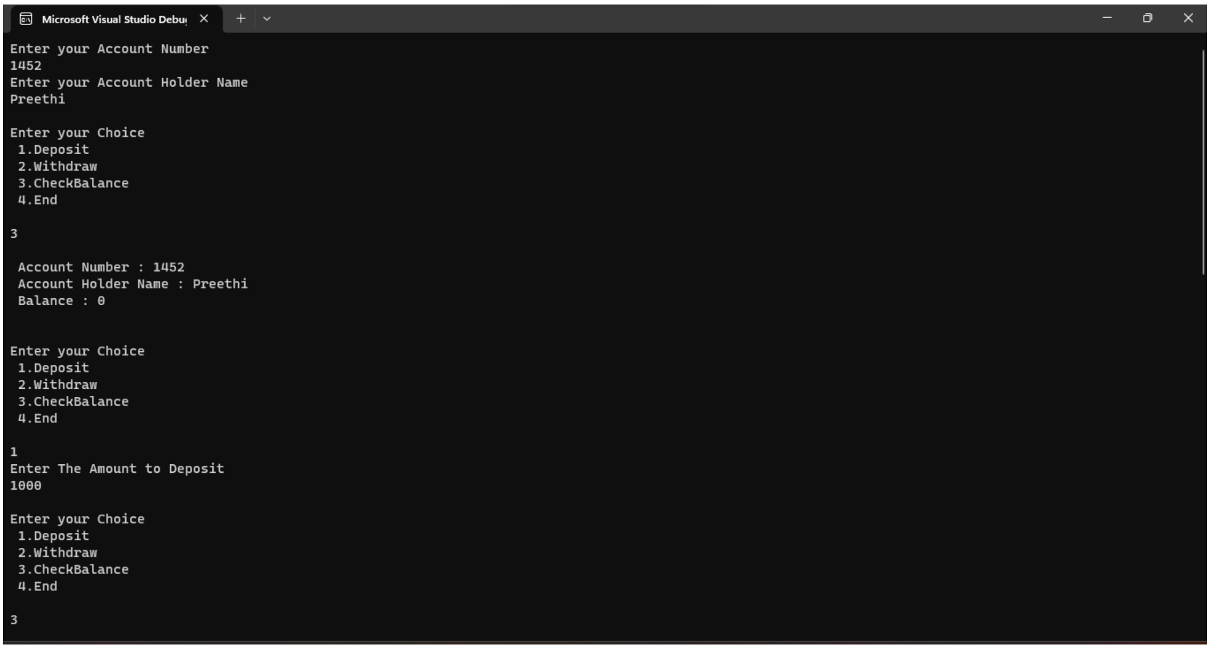


```
your bill amount for this month is : 200

TrainingPhase2\SimplePrograms\bin\Debug\net7.0\
ally close the console when debugging stops, en
gging stops.
y to close this window . . .
```

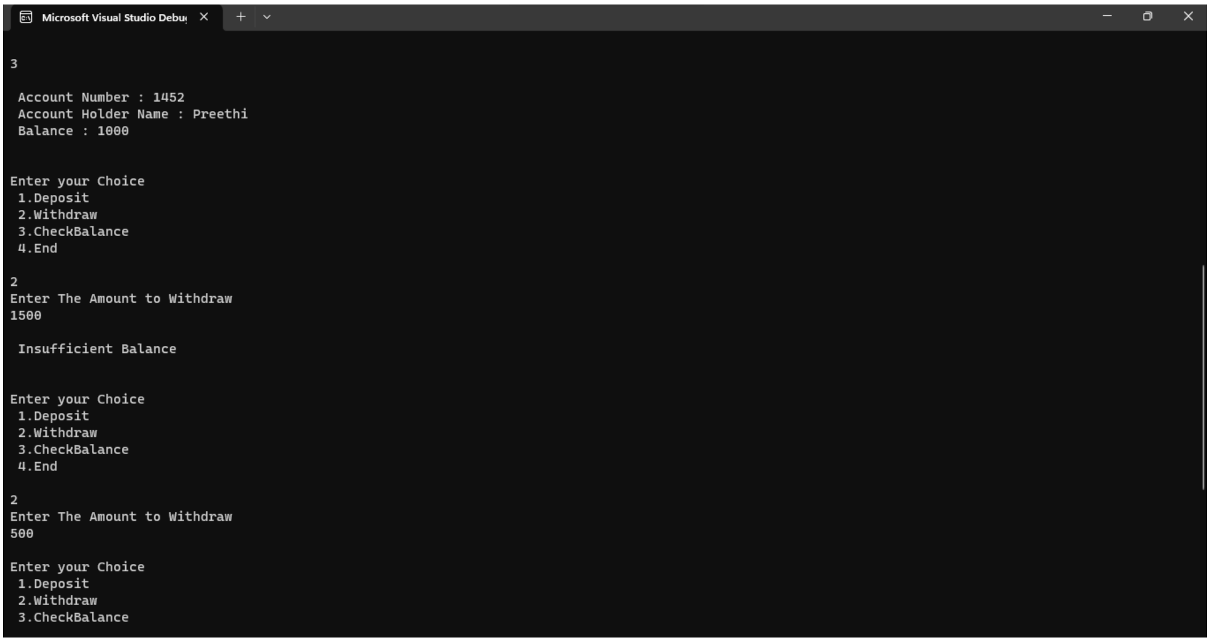
TASK-1

```
class BankDetails
   {
       private readonly int accnumber;
       private int balance;
       private string accName;

       public BankAccount(string accName)
       {
           acc_number = 0123;
           accName = accName;
           Balance = 0;

       }

       public int Acc_number => acc_number;

       public int Balance { get => balance; set => balance = value; }
       public string Acc_holder_name { get => acc_holder_name; set => acc_holder_name =
value; }

       public void amtDeposit(int amount_dep)
       {
           if(amount_dep<=0)
           {
               Console.WriteLine("not sufficient amount");
           }
           else
           {
              Balance = dep_amount + Balance;
           }
       }
       public void Withdraw(int withdraw_amt)
       {
           if(withdraw_amt<=0)
           {
               Console.WriteLine("no balance");
           }
```

```
        else if (Balance>= withdraw_amt)
        {
           Balance = Balance - withdraw_amt;
        }
        else
        {
           Console.WriteLine("please enter amount correctly");
        }
     }
     public void Display()
     {
        Console.WriteLine("Acc Number : " + Acc_number);
        Console.WriteLine("Acc Holder Name:" + Acc_name);
        Console.WriteLine("Balance:" + Balance);

     }
  }

Console.WriteLine("acc_name : ");
        string acc_holder_name = Console.ReadLine();
        Console.WriteLine("dep_amount ");
         int dep_amount = Convert.ToInt32(Console.ReadLine());
        Console.WriteLine("withdraw amount :  ");
        int withdraw_Amt = Convert.ToInt32(Console.ReadLine());


        BankAccount bankAccount =new BankAccount(acc_holder_name);

        bankAccount.Deposit(dep_amount);
        bankAccount.Withdraw(withdraw_Amt);
        bankAccount.Display();
        Console.ReadLine();
```



```
Enter your Account Number
1452
Enter your Account Holder Name
Preethi

Enter your Choice
 1.Deposit
 2.Withdraw
 3.CheckBalance
 4.End

3

 Account Number : 1452
 Account Holder Name : Preethi
 Balance : 0


Enter your Choice
 1.Deposit
 2.Withdraw
 3.CheckBalance
 4.End

1
Enter The Amount to Deposit
1000

Enter your Choice
 1.Deposit
 2.Withdraw
 3.CheckBalance
 4.End

3
```



```
3

 Account Number : 1452
 Account Holder Name : Preethi
 Balance : 1000


Enter your Choice
 1.Deposit
 2.Withdraw
 3.CheckBalance
 4.End

2
Enter The Amount to Withdraw
1500

 Insufficient Balance


Enter your Choice
 1.Deposit
 2.Withdraw
 3.CheckBalance
 4.End

2
Enter The Amount to Withdraw
500

Enter your Choice
 1.Deposit
 2.Withdraw
 3.CheckBalance
```

Program to manage books in library.

```
class BookManagement
{   private readonly int bookId;
                 private string? title;
              private string? author;
            private bool isAvailable;
           public Book(int bookId, string? title, string? author, bool isAvailable)
{this.bookId = bookId;  Title = title;Author = author; IsAvailable = isAvailable; }
public string? Title { get => title; set => title = value; }

public string? Author { get => author; set => author = value; }
public bool IsAvailable { get => isAvailable; set => isAvailable = value; }
}
            }

namespace SimplePrograms
{  internal class Library
{
Book[] book = new Book[4];
  public Library(Book []arr) {
 book = arr;
 }

 public void BorrowBook(string title)
 { int count = 0;

 for (int i = 0; i < book.Length; i++)
{ if (book[i].Title.Equals(title))
  { book[i].IsAvailable = false;  Console.WriteLine("Borrowed");
count++; }
 }
 if(count == 0)
 { Console.WriteLine("Book not Available"); }
}
 public void ReturnBook(string title)
{for (int i = 0; i < book.Length; i++)
{  if (book[i].Title.Equals(title))
{book[i].IsAvailable = true;
Console.WriteLine("Returned");}
  }
  }
 public void DisplayBookDetails()
{  for (int i = 0; i < book.Length; i++)
  {Console.WriteLine("Title :"+book[i].Title+" Author :" + book[i].Author+" Availablity " +
book[i].IsAvailable);  }
  }
 }
 }
```