

**Dr. M.G.R.**  
**EDUCATIONAL AND RESEARCH INSTITUTE**  
**DEEMED TO BE UNIVERSITY**

**University with Graded Autonomy Status**

**(An ISO 21001 : 2018 Certified Institution)**

Periyar E.V.R. High Road, Maduravoyal, Chennai-95. Tamilnadu, India.



**RECORD NOTEBOOK**

**BCS18L12 – DOT NET LAB**

**2024–2025 (ODD SEMESTER)**

**DEPARTMENT**

**OF**

**COMPUTER SCIENCE AND ENGINEERING**

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**YEAR/SEM/SEC** : IV / VII / H



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**BONAFIDE CERTIFICATE**

**Register No:** 211061101448

**Name of Lab:** DOT NET LAB

**Department:** COMPUTER SCIENCE AND ENGINEERING

Certified that, this Record note book is a **bonafide** record of work done by **SUMIT KUMAR** of IV Year B. Tech / CSE, Sec - 'H' in the DOT NET LAB during the year **2024-2025**.

**Signature of Lab-in-Charge**

**Signature of Head of Dept**

Submitted for the Practical Examination held on \_\_\_\_\_

**Internal Examiner**

**External Examiner**

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**Exp No: 1 (a)**

**Date:**

## **COMPLEX NUMBER**

### **AIM**

To write a C# program to calculate complex number.

### **ALGORITHM**

1. Start the program.
2. Declare the class complex.
3. Write a function to overload +operator.
4. Declare two objects of the complex class.
5. Assign real & imaginary value to both objects.
6. Add both objects using +operator.
7. Display the value.
8. Stop the program.

### **PROGRAM**

```
using System;
namespace ComplexNumberExample {
public class Complex {
public double Real {
get; set;
}
public double Imaginary {
get; set;
}
// Constructor
public Complex(double real, double imaginary) {
Real = real;
Imaginary = imaginary;
}
// Overload the + operator
public static Complex operator +(Complex c1, Complex c2) {
return new Complex(c1.Real + c2.Real, c1.Imaginary + c2.Imaginary);
}
// Overload the – operator
public static Complex operator -(Complex c1, Complex c2){
return new Complex(c1.Real - c2.Real, c1.Imaginary - c2.Imaginary);
}
// Overload the * operator
public static Complex operator *(Complex c1, Complex c2){
```

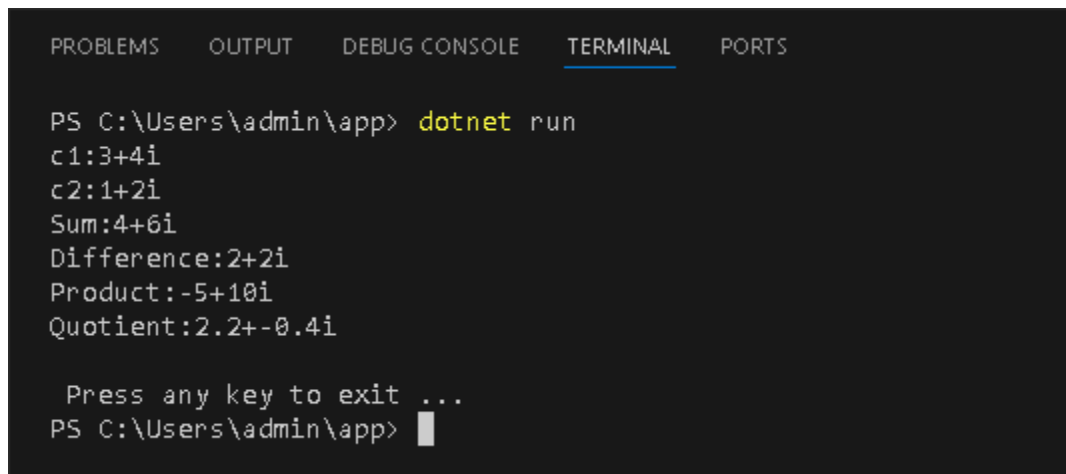
```

double real = c1.Real * c2.Real - c1.Imaginary * c2.Imaginary;
double imaginary = c1.Real * c2.Imaginary + c1.Imaginary * c2.Real;
return new Complex(real, imaginary);
}
// Overload the / operator
public static Complex operator /(Complex c1, Complex c2) {
double denominator = c2.Real * c2.Real + c2.Imaginary * c2.Imaginary;
double real = (c1.Real * c2.Real + c1.Imaginary * c2.Imaginary) / denominator;
double imaginary = (c1.Imaginary * c2.Real - c1.Real * c2.Imaginary) / denominator;
return new Complex(real, imaginary);
}
// Override the ToString method.
public override string ToString() {
return + Real + "+" + Imaginary + "i";
}
}

class Program {
static void Main(string[] args) {
Complex c1 = new Complex(3, 4);
Complex c2 = new Complex(1, 2);
Complex sum = c1 + c2;
Complex difference = c1 - c2;
Complex product = c1 * c2;
Complex quotient = c1 / c2;
Console.WriteLine("c1:" + c1);
Console.WriteLine("c2:" + c2);
Console.WriteLine("Sum:" + sum);
Console.WriteLine("Difference:" + difference);
Console.WriteLine("Product:" + product);
Console.WriteLine("Quotient:" + quotient);
Console.WriteLine("\n Press any key to exit ...");
Console.ReadKey();
}
}
}

```

## OUTPUT



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\admin\app> dotnet run
c1:3+4i
c2:1+2i
Sum:4+6i
Difference:2+2i
Product:-5+10i
Quotient:2.2+-0.4i

Press any key to exit ...
PS C:\Users\admin\app> █
```

## RESULT

Thus, a C# program to calculate complex number has been successfully executed and the output is verified successfully

**Exp No: 1 (b)**

**Date:**

## **MATRIX OPERATIONS**

### **AIM**

To write a C# program to create a matrix.

### **ALGORITHM**

1. Start the program.
2. Create a class matrix.
3. Write a function to overload + & \* operator.
4. Create two object of class matrix.
5. Take the matrix value that is randomly generated.
6. Add the two and multiple the matrix using + and \* operator respectively.
7. Display the matrix.
8. Stop the program.

### **PROGRAM**

```
using System;
class MatrixOperations {
static void Main() {
// Create two matrices
int[,] matrix1 = {
{ 1, 2, 3 },
{ 4, 5, 6 },
{ 7, 8, 9 }
};
int[,] matrix2 = {
{ 9, 8, 7 },
{ 6, 5, 4 },
{ 3, 2, 1 }
};
Console.WriteLine("Matrix 1:");
PrintMatrix(matrix1);
Console.WriteLine("\nMatrix 2:");
PrintMatrix(matrix2);
Console.WriteLine("\nMatrix Addition:");
int[,] resultAddition = AddMatrices(matrix1, matrix2);
PrintMatrix(resultAddition);
Console.WriteLine("\nMatrix Multiplication:");
int[,] resultMultiplication=MultiplyMatrices(matrix1,matrix2);
PrintMatrix(resultMultiplication);
```

```

    }
    // Function to print a matrix
    static void PrintMatrix(int[,] matrix) {
        int rows=matrix.GetLength(0);
        int cols=matrix.GetLength(1);
        for(int i=0;i<rows;i++) {
            for(int j=0;j<cols;j++) {
                Console.Write(matrix[i, j] + "\t");
            }
            Console.WriteLine();
        }
    }

    // Function to add two matrices
    static int[,] AddMatrices(int[,] matrix1, int[,] matrix2) {
        int rows = matrix1.GetLength(0);
        int cols = matrix1.GetLength(1);
        int[,] result = new int[rows, cols];
        for (int i = 0; i < rows; i++) {
            for (int j = 0; j < cols; j++) {
                result[i, j] = matrix1[i, j] + matrix2[i, j];
            }
        }
        return result;
    }

    // Function to multiply two matrices
    static int[,] MultiplyMatrices(int[,] matrix1, int[,] matrix2) {
        int rows1 = matrix1.GetLength(0);
        int cols1 = matrix1.GetLength(1);
        int cols2 = matrix2.GetLength(1);
        int[,] result = new int[rows1, cols2];
        for (int i = 0; i < rows1; i++) {
            for (int j = 0; j < cols2; j++) {
                result[i, j] = 0;
                for (int k = 0; k < cols1; k++) {
                    result[i, j] += matrix1[i, k] * matrix2[k, j];
                }
            }
        }
        return result;
    }
}

```



## OUTPUT

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

Matrix 1:
1      2      3
4      5      6
7      8      9

Matrix 2:
9      8      7
6      5      4
3      2      1

Matrix Addition:
10     10     10
10     10     10
10     10     10

Matrix Multiplication:
30     24     18
84     69     54
138    114    90
PS C:\Users\admin\app> |
```

## RESULT

Thus, a C# program to create a matrix has been executed and the output is verified successfully.

**Exp No: 1 (c)**

**Date:**

## **TIME MANIPULATOIN**

### **AIM**

To write a C# program to manipulate the time.

### **ALGORITHM**

1. Start the program.
2. Create class and methods.
3. Create a string of array and store the methods.
4. Use predefined statement for getting current date and time.
5. Print the date and time.
6. Stop the program.

### **PROGRAM**

```
using System;
class Program {
static void Main() {

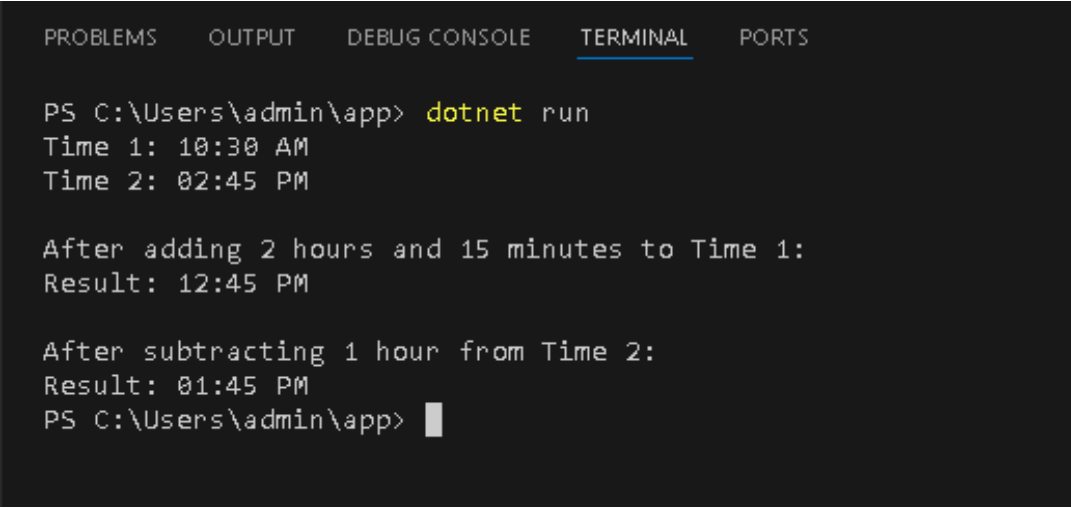
// Creating two DateTime objects for demonstration
DateTime time1 = new DateTime(2024, 6, 26, 10, 30, 0); // 10:30 AM
DateTime time2 = new DateTime(2024, 6, 26, 14, 45, 0); // 2:45 PM

// Displaying the initial times
Console.WriteLine("Time 1: " + time1.ToString("hh:mm tt"));
Console.WriteLine("Time 2: " + time2.ToString("hh:mm tt"));

// Adding and subtracting time
DateTime addedTime = time1.AddHours(2).AddMinutes(15);
DateTime subtractedTime = time2.Subtract(TimeSpan.FromHours(1));

// Displaying the results
Console.WriteLine("\nAfter adding 2 hours and 15 minutes to Time 1:");
Console.WriteLine("Result: " + addedTime.ToString("hh:mm tt"));
Console.WriteLine("\nAfter subtracting 1 hour from Time 2:");
Console.WriteLine("Result: " + subtractedTime.ToString("hh:mm tt"));
}
}
```

## OUTPUT



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\admin\app> dotnet run
Time 1: 10:30 AM
Time 2: 02:45 PM

After adding 2 hours and 15 minutes to Time 1:
Result: 12:45 PM

After subtracting 1 hour from Time 2:
Result: 01:45 PM
PS C:\Users\admin\app> 
```

## RESULT

Thus, a C# program to manipulate the time has been executed and the output is verified successfully.

**EMPLOYEE DETAILS - MULTIPLE INHERITANCE****AIM**

To write a C# program to display employee details using multiple inheritance.

**ALGORITHM**

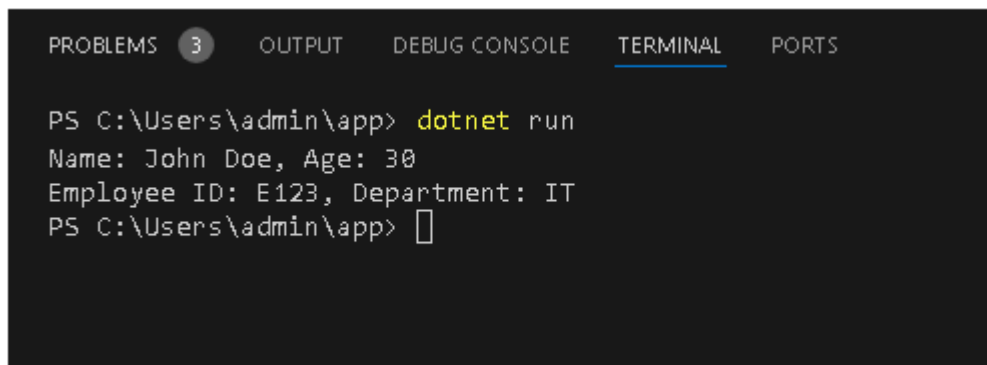
1. Start the program.
2. Create a class.
3. Create a variable and store user input values in it.
4. Display those values in other class using “Extend” keyword.
5. Create an object for first class and print the variables.
6. Stop the program.

**PROGRAM**

```
using System;
namespace MultipleInheritanceExample {
interface IEmployee {
void DisplayEmployeeDetails();
} interface IPerson {
void DisplayPersonDetails();
}
class EmployeeDetails : IEmployee, IPerson {
public string EmployeeId { get; set; }
public string Department { get; set; }
public string Name { get; set; }
public int Age { get; set; }
public void DisplayEmployeeDetails() {
Console.WriteLine($"Employee ID: {EmployeeId}, Department: {Department}");
}
public void DisplayPersonDetails() {
Console.WriteLine($"Name: {Name}, Age: {Age}");
}
}
class Program{
static void Main(string[] args){
EmployeeDetails employeeDetails = new EmployeeDetails{
EmployeeId = "E123",      Department = "IT",
Name = "John Doe",      Age = 30
};
employeeDetails.DisplayPersonDetails();
}
```

```
employeeDetails.DisplayEmployeeDetails();  
}  
}  
}
```

## OUTPUT

A screenshot of a Visual Studio terminal window. The terminal has tabs for PROBLEMS (with a count of 3), OUTPUT, DEBUG CONSOLE, TERMINAL (which is selected and underlined), and PORTS. The terminal text shows a PowerShell prompt at C:\Users\admin\app where the command 'dotnet run' is executed. The output displays 'Name: John Doe, Age: 30' and 'Employee ID: E123, Department: IT' on separate lines, followed by another PowerShell prompt.

```
PROBLEMS 3 OUTPUT DEBUG CONSOLE TERMINAL PORTS  
  
PS C:\Users\admin\app> dotnet run  
Name: John Doe, Age: 30  
Employee ID: E123, Department: IT  
PS C:\Users\admin\app> 
```

## RESULT

Therefore, a C# program to display employee details using multiple inheritance has been executed and the output is verified successfully.

**AREA OF AN OBJECT - MULTIPLE INHERITANCE****AIM**

To write a C# program to calculate area of an object using multiple inheritance.

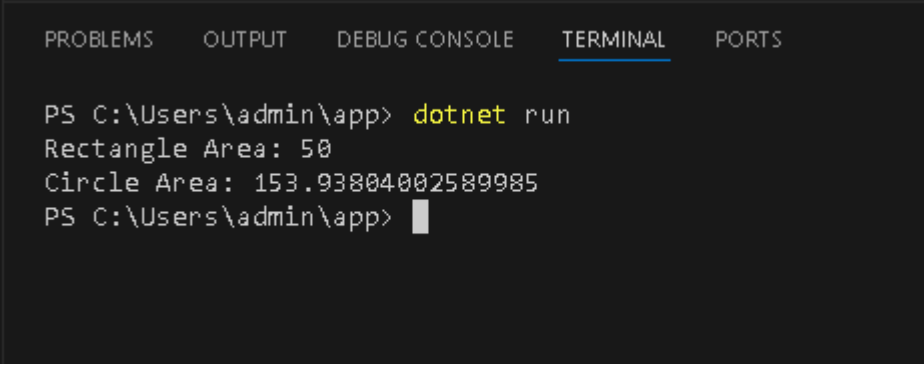
**ALGORITHM**

1. Start the program.
2. Create an interface area and declare a method compute.
3. Define two class Rectangle and Circle implementing area.
4. In classes define the method of interface.
5. Perform the necessary calculation.
6. Display the result as per the given value.
7. Stop the program.

**PROGRAM**

```
using System;
namespace MultipleInheritanceExample {
interface IArea {
double CalculateArea();
}
class Rectangle : IArea {
public double Width { get; set; }
public double Height { get; set; }
public double CalculateArea() => Width * Height;
}
class Circle : IArea {
public double Radius { get; set; }
public double CalculateArea() => Math.PI * Radius * Radius;
}
class Program {
static void Main(string[] args) {
IArea rectangle = new Rectangle { Width = 5, Height = 10 };
IArea circle = new Circle { Radius = 7 };
Console.WriteLine($"Rectangle Area: {rectangle.CalculateArea()}");
Console.WriteLine($"Circle Area: {circle.CalculateArea()}");
}
}
}
```

## OUTPUT



The screenshot shows a Visual Studio interface with a terminal window open. The terminal has tabs for PROBLEMS, OUTPUT, DEBUG CONSOLE, TERMINAL (which is selected), and PORTS. The terminal text shows a PowerShell prompt at C:\Users\admin\app where the command 'dotnet run' is executed. The program outputs 'Rectangle Area: 50' and 'Circle Area: 153.93804002589985' before returning to the prompt.

```
PS C:\Users\admin\app> dotnet run
Rectangle Area: 50
Circle Area: 153.93804002589985
PS C:\Users\admin\app>
```

## RESULT

Therefore, a C# program to calculate area of an object using multiple inheritance has been executed and the output is verified successfully.

**Exp No: 3**

**Date:**

## **IMPLEMENTATION OF MULTI-THREADING**

### **AIM**

To write a C# program to implement multithreading.

### **ALGORITHM**

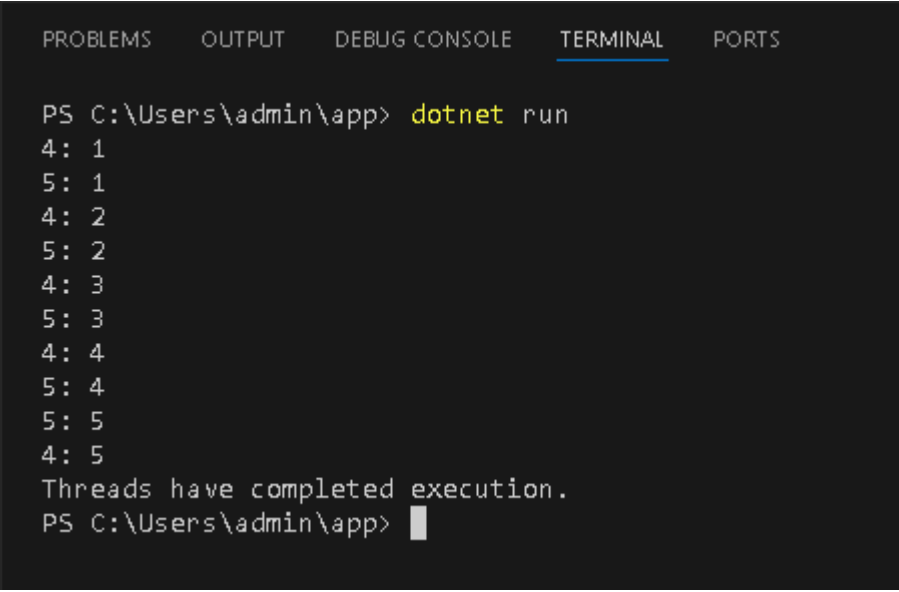
1. Start the program.
2. Create a class.
3. Create a threads thread1, thread2 and give name inside a main.
4. Create 3 methods for executing something.
5. Call 3 methods using 3 different threads.
6. Stop the program.

### **PROGRAM**

```
using System;
using System.Threading;
namespace MultiThreadingExample {
class Program {
static void Main(string[] args) {
Thread thread1 = new Thread(PrintNumbers);
Thread thread2 = new Thread(PrintNumbers);
thread1.Start();
thread2.Start();
thread1.Join();
thread2.Join();
Console.WriteLine("Threads have completed execution.");
}
static void PrintNumbers() {
for (int i = 1; i <= 5; i++) {
Console.WriteLine($"{ Thread.CurrentThread.ManagedThreadId}: {i}");
Thread.Sleep(500); // Simulate some work
}
}
}
}
```



## OUTPUT



```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

PS C:\Users\admin\app> dotnet run
4: 1
5: 1
4: 2
5: 2
4: 3
5: 3
4: 4
5: 4
5: 5
4: 5
Threads have completed execution.
PS C:\Users\admin\app> █
```

## RESULT

Therefore, a C# program to implement multithreading has been executed and the output is verified successfully.

**Exp No: 4**

**Date:**

## **EXCEPTION HANDLING**

### **AIM**

To write a C# program to perform exception handling.

### **ALGORITHM**

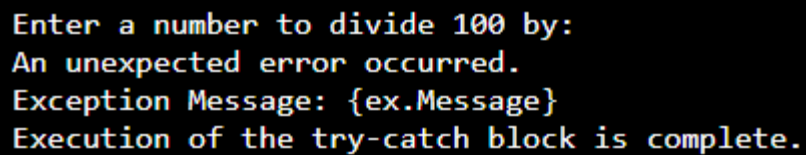
1. Start the program.
2. Create a class.
3. Create an array.
4. Use try, catch blocks to handle exceptions.
5. Stop the program.

### **PROGRAM**

```
using System;
namespace ExceptionHandlingExample {
class Program {
static void Main(string[] args) {
// Example usage of exception handling
try {
// Code that may throw an exception
Console.WriteLine("Enter a number to divide 100 by:");
int divisor = int.Parse(Console.ReadLine());
// This will throw DivideByZeroException if the user inputs 0
int result = 100 / divisor;
Console.WriteLine("Result: " + result);
// Properly format the result
}
catch (DivideByZeroException ex) {
// Handle DivideByZeroException
Console.WriteLine("Error: Cannot divide by zero.");
Console.WriteLine("Exception Message: {ex.Message}");
}
catch (FormatException ex) {
// Handle FormatException
Console.WriteLine("Error: Input was not a valid number.");
Console.WriteLine("Exception Message: {ex.Message}");
}
catch (Exception ex) {
// Handle any other exceptions
Console.WriteLine("An unexpected error occurred.");
}
```

```
Console.WriteLine("Exception Message: {ex.Message}");  
}  
finally {  
    // This block will always execute, regardless of whether an exception was thrown  
    Console.WriteLine("Execution of the try-catch block is complete.");  
}  
}  
}  
}
```

## OUTPUT



```
Enter a number to divide 100 by:  
An unexpected error occurred.  
Exception Message: {ex.Message}  
Execution of the try-catch block is complete.
```

## RESULT

Therefore, a C# program to perform exceptional handling has been executed and the output is verified successfully.

**Exp No: 5**

**Date:**

## **DESIGN A CALCULATOR**

### **AIM**

To write a VB.net program to create a calculator.

### **ALGORITHM**

1. Start the program.
2. Create the GUI for the user.
3. Let the user enter two values in a Textbox.
4. Calculate the value based on the function selected by the user by clicking button.
5. Store the calculated value in a variable.
6. Display the resulted value in the result textbox when user click on = button.
7. Stop the program.

### **PROGRAM**

```
Public Class Calculator
Inherits System.Windows.Forms.Form
Dim num1 As Double
Dim num2 As Double
Dim result As Double
Dim add As Boolean
Dim sb As Boolean
Dim mul As Boolean
Dim div As Boolean
Private Sub Button13_Click(sender As Object, e As EventArgs) Handles Button13.Click
mul = True
num2 = num1
num1 = 0
TextBox1.Text = " "
End Sub
Private Sub Button17_Click(sender As Object, e As EventArgs) Handles Button17.Click
End
End Sub
Private Sub Calculator_Load(sender As Object, e As EventArgs) Handles MyBase.Load
TextBox1.Text = " "
add = sb = mul = div = False
End Sub
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
TextBox1.Text = TextBox1.Text + Button1.Text
num1 = TextBox1.Text
```

```

End Sub
Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
    TextBox1.Text = TextBox1.Text + Button2.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button3_Click(sender As Object, e As EventArgs) Handles Button3.Click
    TextBox1.Text = TextBox1.Text + Button3.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button4_Click(sender As Object, e As EventArgs) Handles
    Button4.Click
    TextBox1.Text = TextBox1.Text + Button4.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button5_Click(sender As Object, e As EventArgs) Handles Button5.Click
    TextBox1.Text = TextBox1.Text + Button5.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button6_Click(sender As Object, e As EventArgs) Handles Button6.Click
    TextBox1.Text = TextBox1.Text + Button6.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button7_Click(sender As Object, e As EventArgs) Handles Button7.Click
    TextBox1.Text = TextBox1.Text + Button7.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button8_Click(sender As Object, e As EventArgs) Handles Button8.Click
    TextBox1.Text = TextBox1.Text + Button8.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button9_Click(sender As Object, e As EventArgs) Handles Button9.Click
    TextBox1.Text = TextBox1.Text + Button9.Text
    num1 = TextBox1.Text
End Sub
Private Sub Button14_Click(sender As Object, e As EventArgs) Handles Button14.Click
    div = True
    num2 = num1
    num1 = 0
    TextBox1.Text = " "
End Sub
Private Sub Button12_Click(sender As Object, e As EventArgs) Handles Button12.Click
    sb = True
    num2 = num1
    num1 = 0

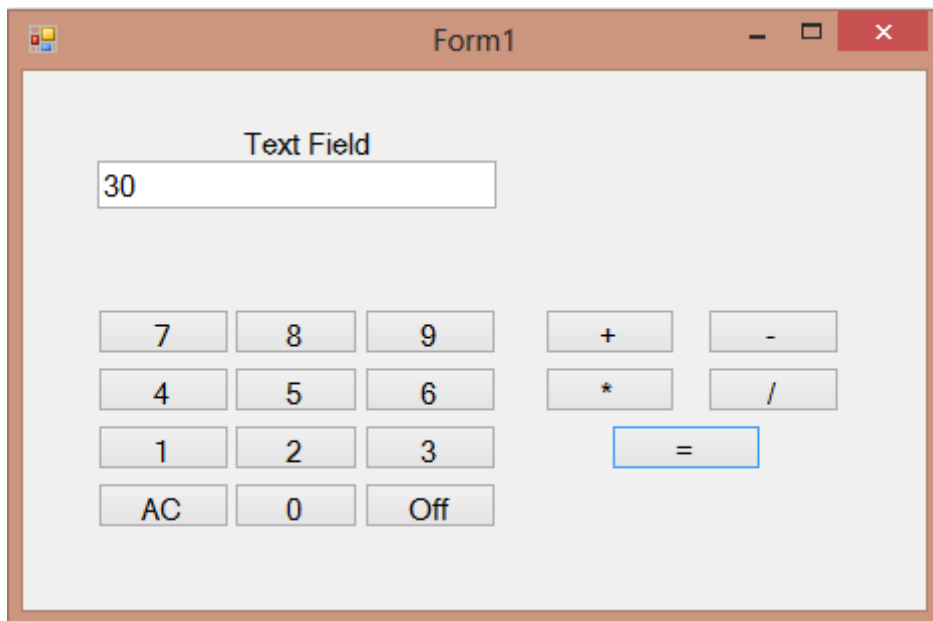
```

```

    TextBox1.Text = " "
End Sub
Private Sub Button11_Click(sender As Object, e As EventArgs) Handles
Button11.Click
    add = True
    num2 = num1
    TextBox1.Text = " "
End Sub
Private Sub Button15_Click(sender As Object, e As EventArgs) Handles Button15.Click
    If add Then
        result = num1 + num2
    End If
    If sb Then
        result = num2 - num1
    End If
    If mul Then
        result = num1 * num2
    End If
    If div Then
        result = num2 / num1
    End If
    TextBox1.Text = result
    num1 = result
End Sub
Private Sub Button16_Click(sender As Object, e As EventArgs) Handles Button16.Click
    TextBox1.Text = " "
    num1 = 0
    result = 0
    add = False
    sb = False
    mul = False
    div = False
    num2 = 0
End Sub
Private Sub Button10_Click(sender As Object, e As EventArgs) Handles Button10.Click
    TextBox1.Text = TextBox1.Text + Button10.Text
    num1 = TextBox1.Text
End Sub
End Class

```

## OUTPUT



## RESULT

Therefore, a VB.net program to create a calculator has been executed and the output is verified successfully.

**Exp No: 6**

**Date:**

## **FILE HANDLING**

### **AIM**

To write a VB.net program to find the net salary of employee.

### **ALGORITHM**

1. Start the program.
2. Create an object using its syntax.
3. Use file mode, file access to create or open a file.
4. Stop the program.

### **PROGRAM**

-----  
To READ FILE  
-----

```
Imports System.IO
Module Module1
Sub Main()
Dim str As String = Nothing
Try
str = File.ReadAllText("D:\myFile.txt")
Console.WriteLine("Content of file: {0}", str)
Catch ex As FileNotFoundException
Console.WriteLine("File does not exist")
End Try End Sub
End Module
```

-----  
TO MODIFY OR APPEND  
-----

```
Imports System.IO
Module Module1
Sub Main()
Dim str As String = Nothing Try
str = File.ReadAllText("D:\myFile.txt")
Console.WriteLine("Content of file before append text: ")
Console.WriteLine(str)
Console.WriteLine("Enter text to append into file:")
```



```
str = Console.ReadLine()
File.AppendAllText("D:\myFile.txt", str)
Console.WriteLine("Content after append:")
str = File.ReadAllText("myFile.txt")
Console.WriteLine(str)
Catch ex As FileNotFoundException
Console.WriteLine("File does not exist")
End Try End Sub
End Module
```

-----  
To DELETE FILE  
-----

```
'VB.Net program to delete a specified file.
Imports System.IO
Module Module1
Sub Main()
Try
File.Delete("D:\myFile.txt")
Console.WriteLine("File deleted successfully")
Catch ex As FileNotFoundException
Console.WriteLine("File does not exist")
End Try End Sub
End Module
```

## **OUTPUT**

The image displays three sequential screenshots of the Microsoft Visual Studio Debug Console, illustrating the execution of a file handling application. Each window has a title bar that reads "Microsoft Visual Studio Debug Console".

The first screenshot shows the initial state where the application has successfully deleted a file. The output text is: "File deleted successfully". Below this, a message states: "C:\Users\IBM-1\source\repos\ConsoleApp2\ConsoleApp2\bin\Debug\net6.0\ConsoleApp2.exe (process 7056) exited with code 0. To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the console when debugging stops. Press any key to close this window . . .".

The second screenshot shows the application's main logic. It first displays "Content of file before append text:" followed by the file's content: "Welcome To File Handling" and "Welcome To DotNet". It then prompts the user to "Enter text to append into file:", showing the input "Welcome To DotNet". After appending, it shows "Content after append:" with the updated file content: "Welcome To File Handling" and "Welcome To DotNetWelcome To DotNet". The same exit message as the first screenshot follows.

The third screenshot shows the final state of the file. The output text is: "Content of file: Welcome To File Handling". It then displays the same exit message as the previous screenshots.

## RESULT

Therefore, the program for file handling has been executed and the output is verified successfully.

**Exp No: 7 (i)**

**Date:**

## **EMPLOYEE DETAILS**

### **AIM**

To write a VB.net program to find the net salary of employee.

### **ALGORITHM**

5. Start the program.
6. Create the GUI for the user.
7. Design some label, textbox & button.
8. After giving values by the user, system will find the gross & net salary of employee.
9. After clicking end button the GUI will be exit.
10. Stop the program.

### **PROGRAM**

```
Public Class Form1
Private Sub Label5_Click(sender As Object, e As EventArgs) Handles Label5.Click
End Sub
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
TextBox7.Text = (Val(TextBox5.Text) - (Val(TextBox6.Text)))
MsgBox("Hi! " & TextBox1.Text & " your Net Salary is Rs" & TextBox7.Text)
End Sub
Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
End Sub
Private Sub TextBox5_TextChanged(sender As Object, e As EventArgs) Handles
TextBox5.TextChanged
TextBox5.Text = (Val(TextBox2.Text) + (Val(TextBox3.Text) + (Val(TextBox4.Text))))
End Sub
Private Sub Button2_Click(sender As Object, e As EventArgs) Handles Button2.Click
End
End Sub
End Class
```

## OUTPUT

The image displays three screenshots of a VB.NET application. The first two screenshots show a window titled 'Form1' with the subtitle 'Employee Details'. The first screenshot shows empty input fields for Name, HRA, DA, Basic, Gross, PF, and NET, with 'FIND' and 'Exit' buttons at the bottom. The second screenshot shows the same window with the following values entered: Name: Vicky, HRA: 6000, DA: 1200, Basic: 3000, Gross: 10200, PF: 1500, and NET: 8700. The 'FIND' button is highlighted with a dashed border. The third screenshot shows a smaller window titled 'employee detail' with the message 'Hi! Vicky your Net Salary is Rs8700' and an 'OK' button.

Field	Value
Name	Vicky
HRA	6000
DA	1200
Basic	3000
Gross	10200
PF	1500
NET	8700

Message: Hi! Vicky your Net Salary is Rs8700

## RESULT

Therefore, a VB.net program to find the net salary of employee has been executed and the output is verified successfully.

**Exp No: 7(ii)**

**Date:**

## **VOTERS**

### **AIM**

To write a C# program for voters through exception handling.

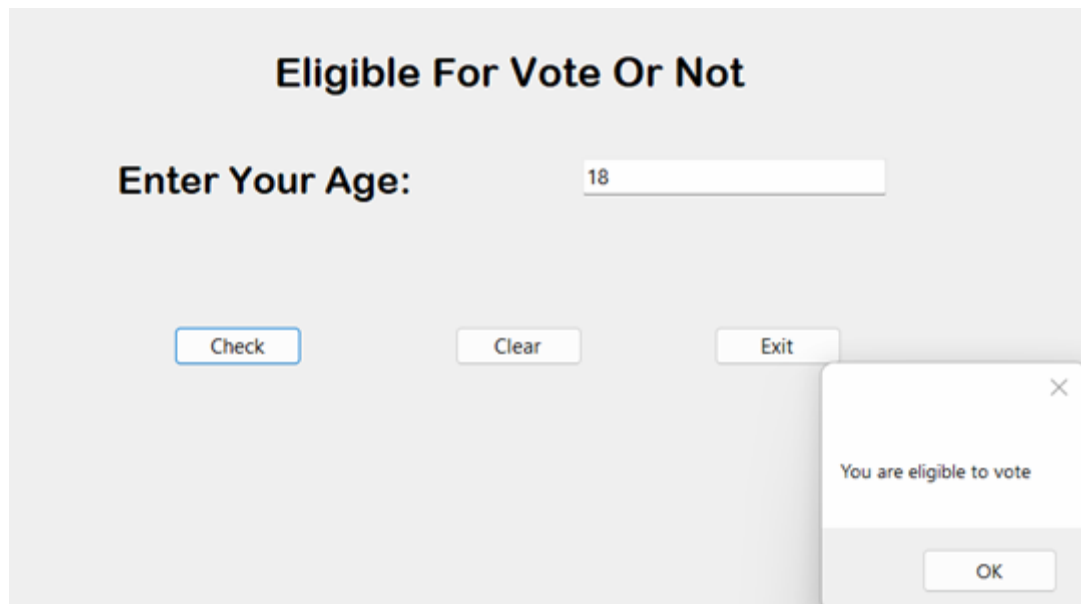
### **ALGORITHM**

1. Start the program.
2. Declare the name & age its data-type.
3. Use the try-catch method to getting the result.
4. Use if method for checking the age.
5. Get the message-box for getting the output as the users are eligible for vote or not.
6. Stop the program.

### **PROGRAM**

```
Public Class Form1
Private Sub Button1_Click(sender As Object, e As EventArgs) Handles
Button1.Click
Dim age As Integer
age = Val(TextBox1.Text)
If age >= 18 Then
MessageBox.Show("You are eligible to vote")
Else
MessageBox.Show("You are not not eligible to vote")
End If
End Sub
Private Sub Button2_Click(sender As Object, e As EventArgs) Handles
Button2.Click
TextBox1.Clear()
End Sub
Private Sub Button3_Click(sender As Object, e As EventArgs) Handles
Button3.Click
Close()
End Sub
End Class
```

## OUTPUT



## RESULT

Therefore, a VB.net program to find the eligibility of voters through exception handling has been executed and the output is verified successfully.

**Exp No: 7(iii)**

**Date:**

## **STUDENT STATUS**

### **AIM**

To write a C# program to find student status through exception handling.

### **ALGORITHM**

1. Start the program.
2. Create a list of students with four variables(Id, name department and semester).
3. Iterate through the student details by using for loop and get the student details by using selectclause
4. Display the student details
5. Stop the program

### **PROGRAM**

Public Class Form1

Private Sub

Button1\_Click(sender As Object, e As EventArgs) Handles

Button1.Click

MessageBox.Show("You have not paid the fees")

End Sub

Private Sub

Button2\_Click(sender As Object, e As EventArgs) Handles

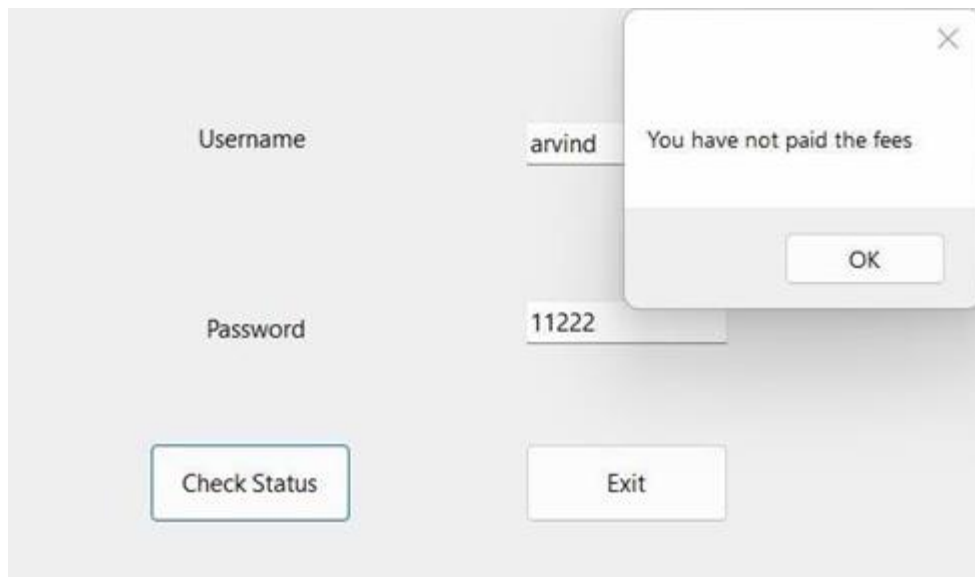
Button2.Click

Close()

End Sub

End Class

## OUTPUT



## RESULT

Therefore, a VB.net program to find the students status through exception handling has been executed and the output is verified successfully.



**Exp No: 8**

**Date:**

## **SUPER MARKET**

### **AIM**

To write a asp.net program to create super market.

### **ALGORITHM**

1. Start the program.
2. Create a dynamic web page using html codes
3. Design a label textbox button
4. After clicking the submit button, we will get all the details about the super market
5. Stop the program

### **PROGRAM**

WINFORM.ASPX.CS:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
namespace WebApplication3{
public partial class WebForm1 : System.Web.UI.Page{
SqlConnection con = new SqlConnection(@"Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\Sony\source\repos\WebA
pplicati on3\WebApplication3\App_Data\Database1.mdf;Integrated Security=True");
protected void Page_Load (object sender, EventArgs e){
if (con.State == ConnectionState.Open){
con.Close();
}
con.Open();
disp_data();
}
protected void Button1_Click(object sender, EventArgs e){
SqlCommand cmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "insert into Market2 values ('"+custname.Text+"",
"+phonenumner.Text+"", '"+city.Text+"', '"+itemname.Text+"', '"+price.Text+"')";
```

```

cmd.ExecuteNonQuery();
custname.Text = ""; phonenumber.Text = ""; city.Text = ""; itemname.Text = "";
price.Text = ""; disp_data();
}
public void disp_data(){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "select * from Market2";
cmd.ExecuteNonQuery();
DataTable dt = new DataTable();
SqlDataAdapter da = new SqlDataAdapter(cmd);
da.Fill(dt);
//GridView1.DataSource = dt;
// GridView1.DataBind();
}

protected void Button2_Click(object sender, EventArgs e){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "delete from Market2 where custname='"+custname.Text+"'";
cmd.ExecuteNonQuery();
custname.Text = ""; disp_data();
}
}
}

```

WINFORM.ASPX:

```

<%@Page Language = "C#" Auto Event Wire up="true" Code Behind = "Web
Form1.aspx.cs" Inherits = "WebApplication3.WebForm1"%>

```

```

<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head run at="server">
<title>SUPER MARKET</title>
</head>
<h1>SUPER MARKET</h1>
<body>
<form id="form1" run at="server">
<div>
<table>
<tr>
<td> CUSTOMER NAME</td>
<td> <asp:TextBox ID="custname" run at="server"> </asp:TextBox></td>
</tr>

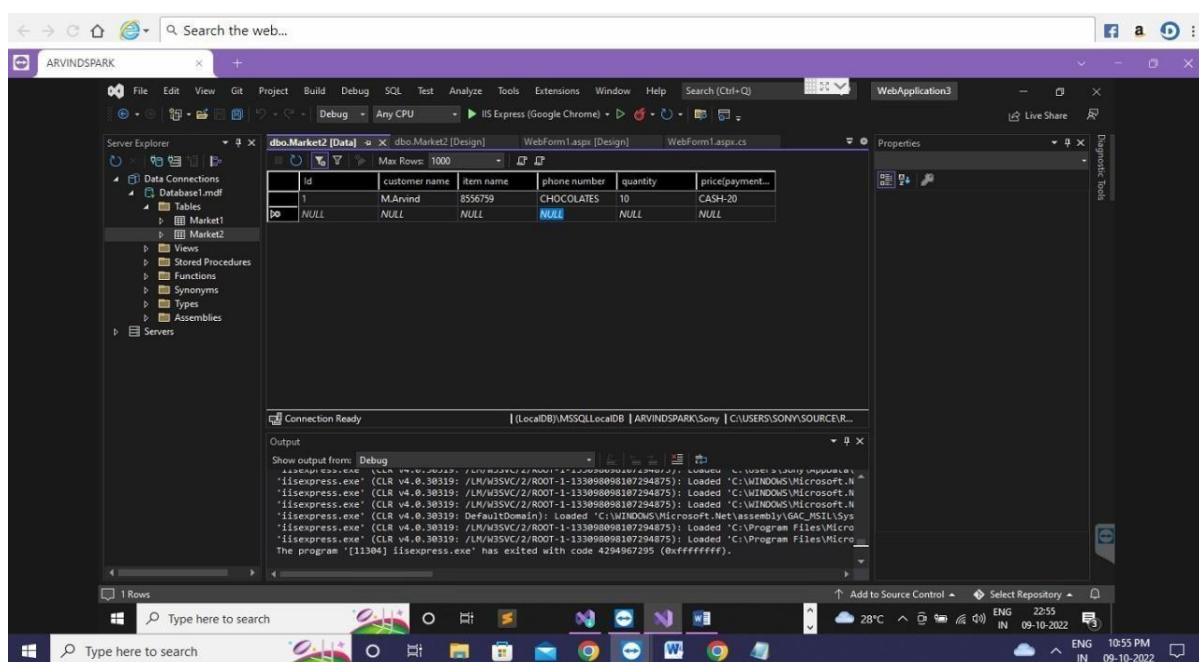
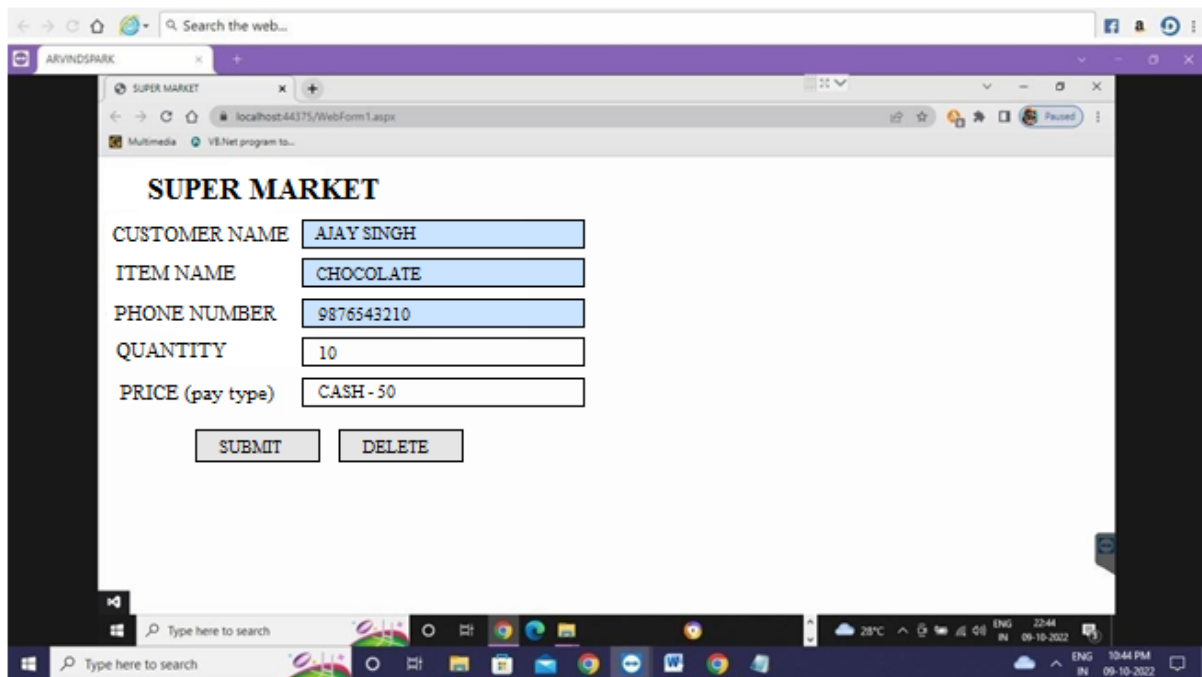
```

```

<tr>
<td>ITEM NAME</td>
<td><asp:TextBoxID="city" run at ="server"></asp:TextBox></td>
</tr>
<tr>
<td>PHONE NUMBER</td>
<td><asp:TextBoxID="phone number" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td>QUANTITY</td>
<td><asp:TextBoxID="item name" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td>PRICE(payment type)</td>
<td><asp:TextBoxID="price" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td colspan="2" align="center">
<asp:ButtonID="Button1"runat="server"Text="SUBMIT"OnClick="Button1_Click"/>
<asp:ButtonID="Button2"runat="server"Text="DELETE"OnClick="Button2_Click"/>
</td>
</tr>
</table>
<br/>
</div>
</form>
</body>
</html>

```

## OUTPUT



## RESULT

Therefore, a VB.net program to create super market has been executed and the output is verified successfully.

## **HOTEL MANAGEMENT SYSTEM**

### **AIM**

To write a asp.net program to create a hotel management system.

### **ALGORITHM**

1. Start the program.
2. Create a dynamic web page using html codes.
3. Design the label textbox and button for getting output.
4. Add all the details Customer Name, Customer Number and other details for the program.
5. Stop the program.

### **PROGRAM**

WEBFROM1.ASPX :

```
<% @Page Language="C#" Auto Event Wireup="true" Code Behind="WebForm1.aspx.cs"
Inherits="WebApplication3.WebForm1" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head run at="server">
<title>HOTEL MANAGEMENT SYSTEM</title>
</head>
<h1>HOTEL MANAGEMENT SYSTEM</h1>
<body>
<form id="form1" run at="server">
<div>
<table>
<tr>
<td>CUSTOMER NAME</td>
<td><asp:TextBoxID="custname" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td>CUSTOMER NUMBER</td>
<td><asp:TextBoxID="city" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td>ROOM NUMBER</td>
<td><asp:TextBoxID="phone number" run at="server"></asp:TextBox></td>
</tr>
<tr>
```

```

<td>ROOM TYPE</td>
<td><asp:TextBoxID="item name" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td>PRICE(payment type)</td>
<td><asp:TextBoxID="price" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td colspan="2" align="center">
<asp:ButtonID="Button1" run at="server" Text="SUBMIT" OnClick="Button1_Click"/>
<asp:ButtonID="Button2" run at="server" Text="DELETE" OnClick="Button2_Click"/>
</td>
</tr>
</table>
<br/>
</div>
</form>
</body>
</html>

```

WEBFORM1.ASPX.CS:

```

using System;
using System.Collections.Generic;
using System.Linq; using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
namespace WebApplication3{
public partial class WebForm1 : System.Web.UI.Page{
SqlConnection con = new SqlConnection(@"Data Source=(LocalDB)\MSSQLLocalDB;
AttachDbFilename=C:\Users\Sony\source\repos\WebApplicati
on3\WebApplication3\App_Data\Database1.mdf; Integrated Security=True"); protected void
Page_Load(object sender, EventArgs e){
if (con.State == Connection State.Open){
con.Close();
}
con.Open();
disp_data();
}
protected void Button1_Click(object sender, EventArgs e){
SqlCommand cmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;

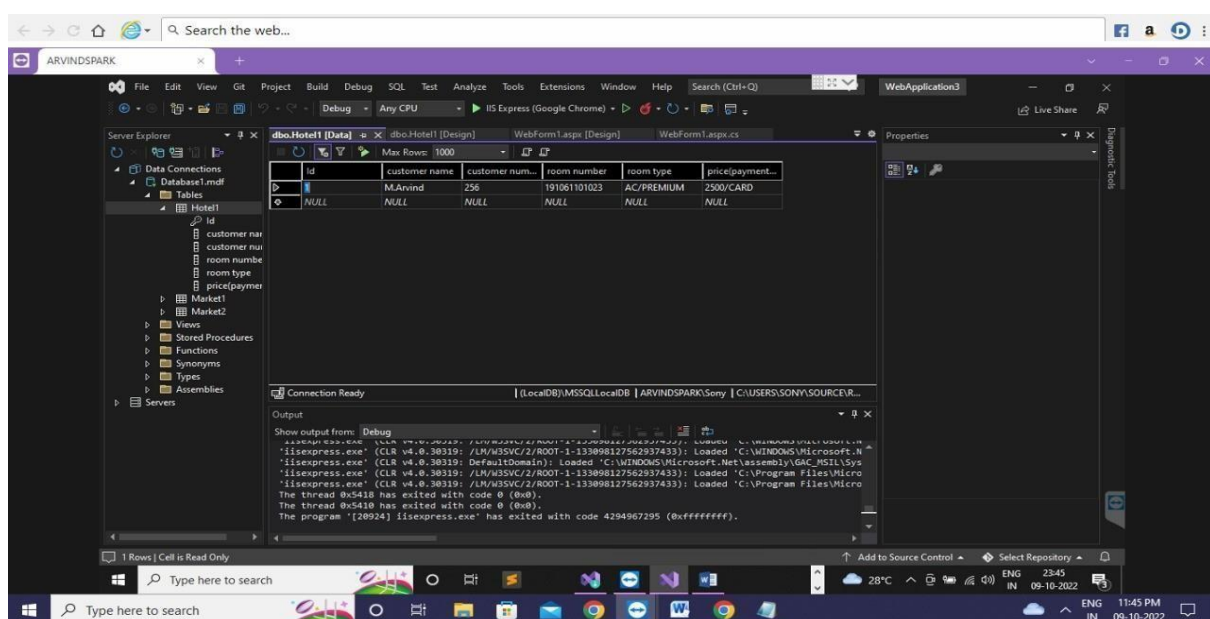
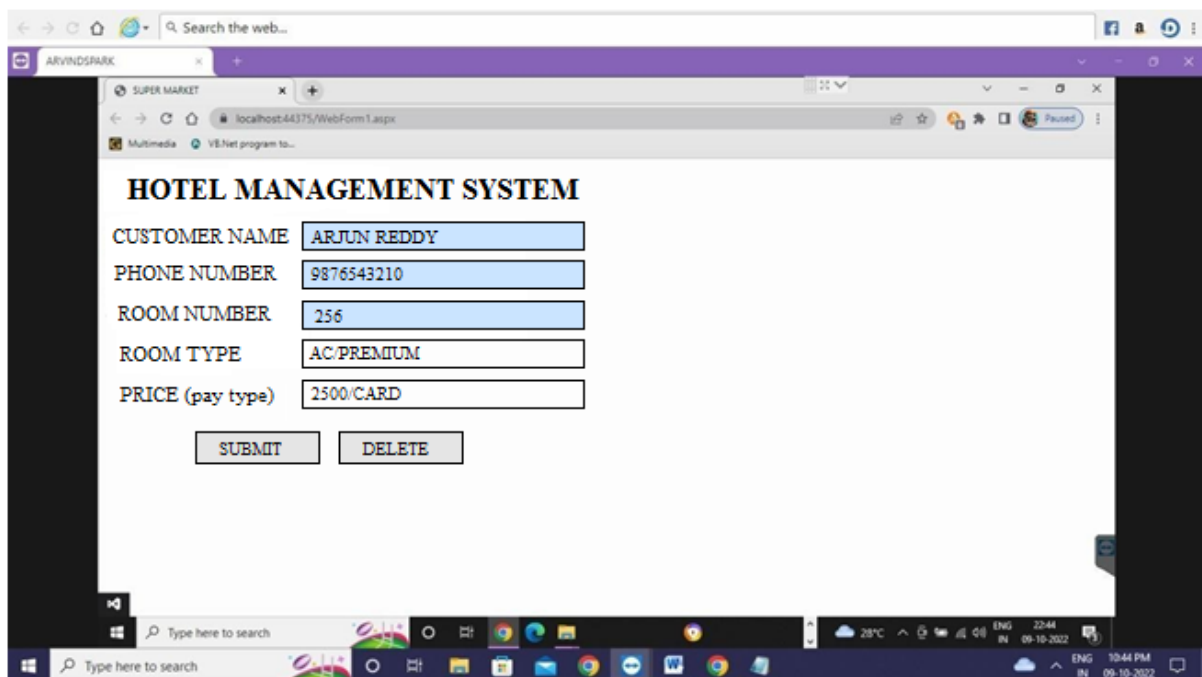
```

```

cmd.CommandText = "insert into Hotel1
values('"+custname.Text+"','"+phonenumber.Text+"','"+city.Text+"','"+itemname.Text+"','+
price.Text+"')";
cmd.ExecuteNonQuery();
custname.Text = "";
phonenumber.Text = "";
city.Text = "";
itemname.Text = "";
price.Text = "";
disp_data();
}
public void disp_data(){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "select * from Hotel1";
cmd.ExecuteNonQuery();
DataTabledt = new DataTable();
SqlDataAdapter da = new SqlDataAdapter(cmd);
da.Fill(dt);
//GridView1.DataSource = dt;
// GridView1.DataBind();
}
protected void Button2_Click(object sender, EventArgs e){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "delete from Hotel1 where custname='"+custname.Text+"'";
cmd.ExecuteNonQuery();
custname.Text = "";
disp_data();
}
}
}
}

```

## OUTPUT



## RESULT

Therefore, a VB.net program to create hotel management system has been executed and the output is verified successfully.



**STUDENT ATTENDENCE CALCULATION****AIM**

To write a asp.net program for student attendance calculation.

**ALGORITHM**

1. Start the program.
2. Create an empty C# web application.
3. Create a database using "sql server database".
4. Create a web form.
5. Drag drop buttons, textbox, labels and grid view.
6. End the program.

**PROGRAM**

WEBFORM1.aspx.cs:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
using System.Diagnostics;
namespace WebApplication6{
public partial class WebForm1 : System.Web.UI.Page{
SqlConnection con = new SqlConnection(@"Data
Source=(LocalDB)\MSSQLLocalDB;AttachDbFilename=C:\Users\Sony\source\repos\Web
pplicati on6\WebApplication6\App_Data\Database1.mdf;Integrated Security=True");
protected void Page_Load(object sender, EventArgs e){
if (con.State == ConnectionState.Open){
con.Close();
}
con.Open(); disp_data();
}
protected void Button1_Click(object sender, EventArgs e){
SqlCommand cmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "insert into Attendance1 values('"+name.Text + "','"+regno.Text +
"', '"+wd.Text+ "','"+pd.Text+ "','"+ad.Text + "','"+percent.Text+"','"+fine.Text+"')";
```

```

cmd.ExecuteNonQuery();
name.Text = ""; regno.Text = ""; wd.Text = "";
pd.Text = "";
ad.Text = ""; percent.Text = ""; fine.Text = "";
disp_data();
}
public void disp_data(){
SqlCommand cmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "select * from Attendance1";
cmd.ExecuteNonQuery();
DataTable dt = new DataTable();
SqlDataAdapter da = new SqlDataAdapter(cmd);
da.Fill(dt);
GridView1.DataSource = dt;
GridView1.DataBind();
}
}
}

```

WEBFORM.ASPX:

```

<% @ Page Language="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs"
Inherits="WebApplication6.WebForm1" %>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title>STUDENT ATTENDENCE CALCULATION</title>
</head>
<body>
<h1>STUDENT ATTENDENCE CALCULATION</h1>
<h1>SUVEDHINI REDDY 191061101602</h1>
<form id="form1" runat="server">
<div>
<table>
<tr>
<td>Name</td>
<td><asp:TextBox ID="name" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>Reg No</td>
<td><asp:TextBox ID="regno" runat="server"></asp:TextBox></td>
</tr>
<tr>

```

```

<td>Total No of working days</td>
<td><asp:TextBox ID="wd" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>Present Days</td>
<td><asp:TextBox ID="pd" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>Absent Days</td>
<td><asp:TextBox ID="ad" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>Percentage</td>
<td><asp:TextBox ID="percent" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>Fine</td>
<td><asp:TextBox ID="fine" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td colspan="2" align="center">
<asp:Button ID="Button1" runat="server" Text="SUBMIT" OnClick="Button1_Click" />
<asp:Button ID="Button2" runat="server" Text="DELETE" />
</td>
</tr>
</table>
<br />
<asp:GridView ID="GridView1" runat="server"></asp:GridView>
</div>
</form>
</body>
</html>

```

## OUTPUT

**STUDENT ATTENDANCE CALCULATION**

Name

Reg No

Total working days

Present days

Absent days

Name	Reg No	Total work days	Present days	Absent days	Percentage
Krishn	1099	80	40	40	50%

## RESULT

Therefore, a VB.net program for student attendance calculation has been executed and the output is verified successfully.

## **HOSPITAL MANAGEMENT SYSTEM**

### **AIM**

To write a asp.net program for hospital management system.

### **ALGORITHM**

1. Start the program.
2. Create an empty C# web application.
3. Create a database using “sql server database”.
4. Create a web form.
5. Drag drop buttons, textbox, labels and grid view.
6. End the program.

### **PROGRAM**

WEBFORM1.aspx

```
<% @PageLanguage="C#" AutoEventWireup="true" CodeBehind="WebForm1.aspx.cs" Inherits="WebApplication3.WebForm1"%>
<!DOCTYPE html>
<html xmlns="http://www.w3.org/1999/xhtml">
<head runat="server">
<title>HOSPITAL MANAGEMENT SYSTEM</title>
</head>
<h1>HOSPITAL MANAGEMENT SYSTEM</h1>
<body>
<form id="form1" runat="server">
<div>
<table>
<tr>
<td>Patient Name</td>
<td><asp:TextBox ID="custname" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>PhoneNumber</td>
<td><asp:TextBox ID="phone number" runat="server"></asp:TextBox></td>
</tr>
<tr>
<td>Address</td>
<td><asp:TextBox ID="city" runat="server"></asp:TextBox></td>
</tr>
<tr>
```

```

<td>Disease</td>
<td><asp:TextBoxID="item name" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td>Billing</td>
<td><asp:TextBoxID="price" run at="server"></asp:TextBox></td>
</tr>
<tr>
<td colspan="2" align="center">
<asp:ButtonID="Button1" run at="server" Text="SUBMIT" OnClick="Button1_Click"/>
<asp:ButtonID="Button2" run at="server" Text="DELETE" OnClick="Button2_Click"/>
</td>
</tr>
</table>
<br/>
<asp:Grid View ID="Grid View1" run at="server"></asp:GridView>
</div>
</form>\
</body></html>Webform.aspx.cs using System;

```

#### WEBFORM.ASPX:

```

using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.UI;
using System.Web.UI.WebControls;
using System.Data;
using System.Data.SqlClient;
namespace WebApplication3{
public partial class WebForm1 : System.Web.UI.Page{
Sql Connection con = new Sql Connection(@"Data Source=(LocalDB)\MSSQLLocalDB;
Attach Db File name=C:\Users\Sony\source\repos\WebApplicati
on3\WebApplication3\App_Data\Database1.mdf;
Integrated Security=True");
protected void Page_Load(object sender, EventArgs e){
if (con.State == Connection State.Open){
con.Close();
}
con.Open(); disp_data();
}
protected void Button1_Click(object sender, EventArgs e){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;

```

```

cmd.CommandText = "insert into Market1
values('"+custname.Text+"','"+phone
number.Text+"','"+city.Text+"','"+itemname.Text+"','"+price.Te xt+"')";
cmd.ExecuteNonQuery();
cust name.Text = "";
phone number.Text = "";
city.Text = "";
itemname.Text = "";
price.Text = "";
disp_data();
}
public void disp_data(){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "select * from Market1 ";
cmd.ExecuteNonQuery();
Data Table dt = new Data Table();
SqlDataAdapter da = new Sql Data Adapter(cmd);
da.Fill(dt);
Grid View1.DataSource = dt;
Grid View1.DataBind();
}
protected void Button2_Click(object sender, EventArgs e){
SqlCommandcmd = con.CreateCommand();
cmd.CommandType = CommandType.Text;
cmd.CommandText = "delete from Market1 where custname='"+custname.Text +"'";
cmd.ExecuteNonQuery();
custname.Text = ""; disp_data();
}
}
}

```

## OUTPUT

**HOSPITAL MANAGEMENT SYSTEM**

Patient Name

Phone Number

Address

Disease

Billing

Patient Name	Phone Number	Address	Disease	Billing
Akbar	191061101023	GT Road Delhi	Typhoid	Rs. 1000

## RESULT

Therefore, a VB.net program for hospital management system has been executed and the output is verified successfully.



## **INCOME TAX CALCULATION**

### **AIM**

To write an asp.net program for income tax calculation.

### **ALGORITHM**

1. Start the program.
2. Create an empty C# web application.
3. Create a web server.
4. Create a new window C# project within web service (we can create a number of new projects within a single web service).
5. Design the form that means drag and drop buttons, textbox and labels.
6. End the program.

### **PROGRAM**

WEBSERVICE1.asmx.cs:

```
using System;
using System.Collections.Generic;
using System.Linq;
using System.Web;
using System.Web.Services;
namespace WebApplication8{
/// <summary>
/// Summary description for WebService1
/// </summary>

[WebService(Namespace = "http://tempuri.org/")] [WebServiceBinding(ConformsTo =
WsiProfiles.BasicProfile1_1)] [System.ComponentModel.ToolboxItem(false)]
// To allow this Web Service to be called from script, using ASP.NET AJAX, uncomment the
following line.
// [System.Web.Script.Services.ScriptService]

public class WebService1 : System.Web.Services.WebService{
[WebMethod]
public string HelloWorld(){
return "INCOME TAX";
}
[WebMethod]
public int add(int a,int b){
```

```

int c=a+b;
int g= (c/100)*5;
return (g);
}
}
}

```

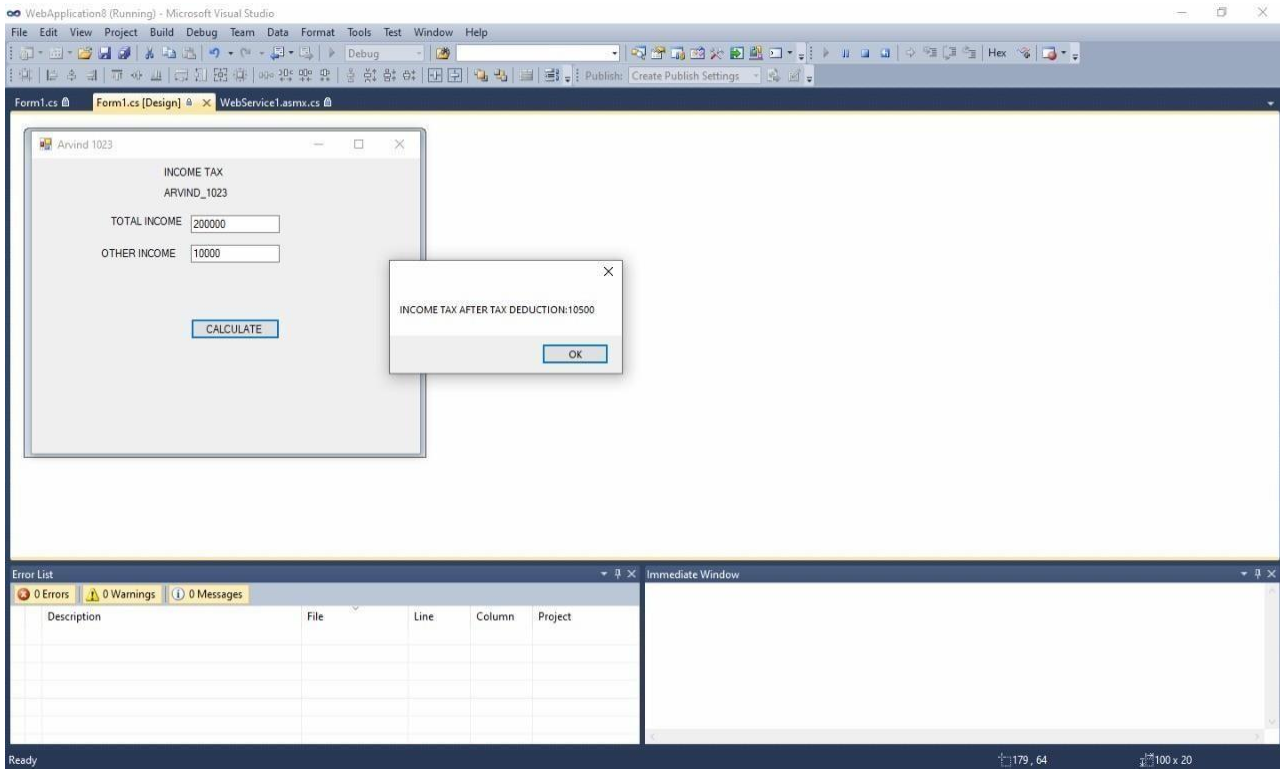
Sumit 1023.cs\*:

```

using System;
using System.Collections.Generic;
using System.ComponentModel;
using System.Data;
using System.Drawing;
using System.Linq;
using System.Text;
using System.Windows.Forms;
using Windows Forms Application1.Service Reference1;
namespace Windows Forms Application1 {
public partial class Form1 : Form{
WebService1SoapClient obj;
public Form1(){
Initialize Component();
}
private void button1_Click(object sender, EventArgs e){
int a = Convert.ToInt32(textBox1.Text);
int b = Convert.ToInt32(textBox2.Text); int ans = obj.add(a, b);
MessageBox.Show("INCOME TAX AFTER TAX DEDUCTION:" + ans);
}
private void Form1_Load(object sender, EventArgs e){
obj = new WebService1SoapClient();
}
private void textBox1_TextChanged(object sender, EventArgs e){
}
private void label4_Click(object sender, EventArgs e){
}
}
}
}

```

## OUTPUT



## RESULT

Therefore, a VB.net program for income tax calculation has been executed and the output is verified successfully.