1 Develop a calculator using Button, Textbox and Label

Public Class Form1

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

Button1.Click

MsgBox("The sum is " & Val(TextBox1.Text) + Val(TextBox2.Text))

End Sub

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

Button2.Click

MsgBox("The sum is " & Val(TextBox1.Text) - Val(TextBox2.Text))

End Sub

Private Sub Button3\_Click(sender As Object, e As EventArgs) Handles

Button3.Click

MsgBox("The sum is " & Val(TextBox1.Text) \* Val(TextBox2.Text))

End Sub

Private Sub Button4\_Click(sender As Object, e As EventArgs) Handles

Button4.Click

MsgBox("The sum is " & Val(TextBox1.Text) / Val(TextBox2.Text))

End Sub

End Class

2 Write a Program using select case statement using Console

Imports System Module Module1 Sub Main()

Console.WriteLine("Please enter a number between 1 and 5:")

Dim userInput As Integer = Console.ReadLine()

Select Case userInput

Case 1

Console.WriteLine("You entered 1.")

Case 2

Console.WriteLine("You entered 2.")

Case 3

Console.WriteLine("You entered 3.")

Case 4

Console.WriteLine("You entered 4.")

Case 5

Console.WriteLine("You entered 5.")

Case Else

Console.WriteLine("Invalid input.")

End Select

Console.ReadLine()

End Sub

End Module

3. Write a program using While statement to print the prime numbers between 1 to 100 using

Console

Module Module1

Sub Main()

Dim num As Integer = 2

While num <= 100

Dim isPrime As Boolean = True

Dim divisor As Integer = 2

While divisor <= Math.Sqrt(num) If num Mod divisor = 0 Then isPrime = False

Exit While End If divisor += 1

End While

If isPrime AndAlso num > 1 Then

Console.Write(num & " ")

End If

num += 1

End While

Console.ReadLine()

End Sub End Module

4 Write program using For Next loop statement to find the Armstrong numbers between 1 to 500 using Console Module Module1

Sub Main()

Dim num, temp, r, s, t As Integer

Console.WriteLine(" Armstrong Number Between 1 to 500: ")

For num = 1 To 500

temp = num s = 0

For t = 0 To num r = temp Mod 10 s = (r \* r \* r) + s temp = temp \ 10

Next

If num = s Then

Console.WriteLine(num)

End If

Next

Console.ReadKey()

End Sub

End Module

5) Implement the program using if-else statement to find the number is even or odd using Button,

Textbox and Label

Public Class Form1

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

Button1.Click

Dim input As Integer = Integer.Parse(TextBox1.Text)

If input Mod 2 = 0 Then

Label1.Text = input & " is even."

Else

Label1.Text = input & " is odd."

End If

End Sub End Class

6) Write a program to find the Factorial using Bu on, Textbox and Label.

Public Class Form1

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

Button1.Click

Dim input As Integer = Integer.Parse(TextBox1.Text)

Dim factorial As Integer = 1

For i As Integer = 1 To input factorial \*= i

Next

Label1.Text = "Factorial of " & input & " is " & factorial

End Sub

End Class

7) Write the program using RadioBu on to change the bulb state ON/OFF.

Public Class Form1

Private Sub RadioButton1\_CheckedChanged(sender As Object, e As EventArgs)

Handles RadioButton1.CheckedChanged

PictureBox2.Show()

PictureBox1.Hide()

End Sub

Private Sub RadioButton2\_CheckedChanged(sender As Object, e As EventArgs)

Handles RadioButton2.CheckedChanged

PictureBox1.Show()

PictureBox2.Hide()

End Sub End Class

|  |  |
| --- | --- |
| 8) Write the program to select colleges using SINngle | |
| ComboBox. |  |

Public Class Form1

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles

MyBase.Load

ComboBox1.Items.Add(“MET”)

ComboBox1.Items.Add(“GGSP”)

ComboBox1.Items.Add(“KKW”)

ComboBox1.Items.Add(“GP”)

End Sub

Private Sub ComboBox1\_SelectedIndexChanged(sender As Object, e As

EventArgs) Handles ComboBox1.SelectedIndexChanged

MsgBox(ComboBox1.SelectedItem.ToString)

End Sub

End Class

|  |  |
| --- | --- |
| 9) Write a program to display the traffic signal using mer control. | |
| Public Class Form1 |  |

Public Class Form1

Private Sub Timer1\_Tick(sender As Object, e As EventArgs) Handles Timer1.Tick

If PictureBox1.Visible Then

PictureBox1.Visible = False

PictureBox2.Visible = True

PictureBox3.Visible = False

ElseIf PictureBox2.Visible Then

PictureBox1.Visible = False

PictureBox2.Visible = False

PictureBox3.Visible = True

ElseIf PictureBox3.Visible Then

PictureBox1.Visible = True

PictureBox2.Visible = False

PictureBox3.Visible = False

End If

End Sub

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

Timer1.Enabled = True

Timer1.Interval = 1600

PictureBox1.Visible = True

PictureBox2.Visible = False

PictureBox3.Visible = False

End Sub

End Class

# Develop a program to print the reverse of any number using Sub procedure. Module Module1

Sub Main()

Dim number As Integer = 0

Dim remainder As Integer = 0

Dim reverse As Integer = 0

Console.Write("Enter the number: ") number = Integer.Parse(Console.ReadLine())

While (number > 0) remainder = number Mod 10 reverse = reverse \* 10 + remainder number = number / 10

End While

Console.WriteLine("Reverse: {0}", reverse)

End Sub

End Module

11) Write a program to identify maximum number using parameterized function. (Use two Textbox for input a integer number and display output in Message Box)

Public Class Form1

Private Func on GetMax(ByVal num1 As Integer, ByVal num2 As Integer) As Integer

If num1 > num2 Then

Return num1

Else

Return num2

End If

End Func on

Private Sub Bu on1\_Click(sender As Object, e As EventArgs) Handles Bu on1.Click

Dim num1 As Integer = Integer.Parse(TextBox1.Text)

Dim num2 As Integer = Integer.Parse(TextBox2.Text)

Dim max As Integer = GetMax(num1, num2)

MessageBox.Show("The maximum number is " & max)

End Sub

End Class

|  |  |
| --- | --- |
| 12) Implement a program to accept values from Combo Box and Display average of | |
| this in message box using class |  |

Public Class Form1

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

ComboBox1.Items.Add(5)

ComboBox1.Items.Add(8)

ComboBox1.Items.Add(12)

ComboBox1.Items.Add(20)

ComboBox1.Items.Add(32)

ComboBox2.Items.Add(6)

ComboBox2.Items.Add(11)

ComboBox2.Items.Add(17)

ComboBox2.Items.Add(24)

ComboBox2.Items.Add(36)

End Sub

Private Sub Bu on1\_Click(sender As Object, e As EventArgs) Handles Bu on1.Click

Dim average As Single

average = (Val(ComboBox1.Text) + Val(ComboBox2.Text)) / 2 MsgBox("Average = " & average) End Sub

End Class

13) Implement a program to calculate area of circle using parameterized constructor.

Module Module1 Sub Main() Dim obj As New circle(2) obj.area() Console.ReadLine()

End Sub

Class circle

Dim p As Double = 3.14

Dim r, a As Double

Public Sub New(ByVal i As Integer) r = i

End Sub Sub area() a = p \* r \* r

Console.WriteLine("Area of Circle = " & a)

End Sub

End Class

End Module

14) Write a program using data adapter to connect to the database and display data on datagridview( Use Employee table)

Imports System.Data.SqlClient

Public Class Form1

Private Sub Form1\_Load(sender As Object, e As EventArgs) Handles MyBase.Load

' Replace the values below with your own database connection details

Dim connectionString As String = "Data Source=myServerAddress;Initial

Catalog=myDataBase;User Id=myUsername;Password=myPassword;"

' Create a new SqlConnection object using the connection string

Using connection As New SqlConnection(connectionString)

' Open the connection connection.Open()

' Create a new SqlDataAdapter object to retrieve data from the Employee table

Dim adapter As New SqlDataAdapter("SELECT \* FROM Employee", connection)

' Create a new DataTable object to hold the data

Dim table As New DataTable()

' Fill the DataTable with data from the SqlDataAdapter adapter.Fill(table)

' Set the DataSource property of the DataGridView to the DataTable

DataGridView1.DataSource = table

End Using

End Sub End Class

15) Write a program to insert data into the database.(Use Student Table)

Imports System.Data.SqlClient

Public Class Form1

Private Sub btnInsert\_Click(sender As Object, e As EventArgs) Handles btnInsert.Click

' Replace the values below with your own database connec on details

Dim connec onString As String = "Data Source=myServerAddress;Ini al

Catalog=myDataBase;User Id=myUsername;Password=myPassword;"

' Create a new SqlConnec on object using the connec on string

Using connec on As New SqlConnec on(connec onString)

' Open the connec on connec on.Open()

' Create a new SqlCommand object to execute the INSERT statement

Dim command As New SqlCommand("INSERT INTO Student (Name, Age, Grade) VALUES

(@Name, @Age, @Grade)", connec on)

' Add parameters to the SqlCommand object command.Parameters.AddWithValue("@Name", txtName.Text) command.Parameters.AddWithValue("@Age", txtAge.Text) command.Parameters.AddWithValue("@Grade", txtGrade.Text)

' Execute the INSERT statement command.ExecuteNonQuery()

' Display a message box to indicate that the data has been inserted

MessageBox.Show("Data inserted successfully.")

End Using

End Sub

End Class

16) Write the program to validate Email ID, Mobile No. using Regex.

Imports System.Text.RegularExpressions

Module Module1

Sub Main()

' Validate email address

Dim email As String = "john.doe@example.com"

If Regex.IsMatch(email, "^\w+([\.-]?\w+)\*@\w+([\.-]?\w+)\*(\.\w{2,3})+$") Then

Console.WriteLine("Email is valid")

Else

Console.WriteLine("Email is not valid")

End If

' Validate mobile number

Dim mobile As String = "9876543210"

If Regex.IsMatch(mobile, "^[1-9]\d{9}$") Then

Console.WriteLine("Mobile number is valid")

Else

Console.WriteLine("Mobile number is not valid")

End If

Console.ReadLine()

End Sub

End Module