



UTM
UNIVERSITI TEKNOLOGI MALAYSIA

School of Professional and
Continuing Education
(SPACE)

UNIVERSITI TEKNOLOGI MALAYSIA
DEPARTMENT OF COMPUTER SCIENCE & SERVICES, UTM KL
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LAB SKILL 2

DDWD 2653: VB.NET PROGRAMMING

SECTION 38

NAME :

1. DAYANG NUR NAZIHAH BINTI M ROSLAN - A22DW0255
2. DANIA AQEELAH BINTI AHMAD YUSRI - A22DW0603

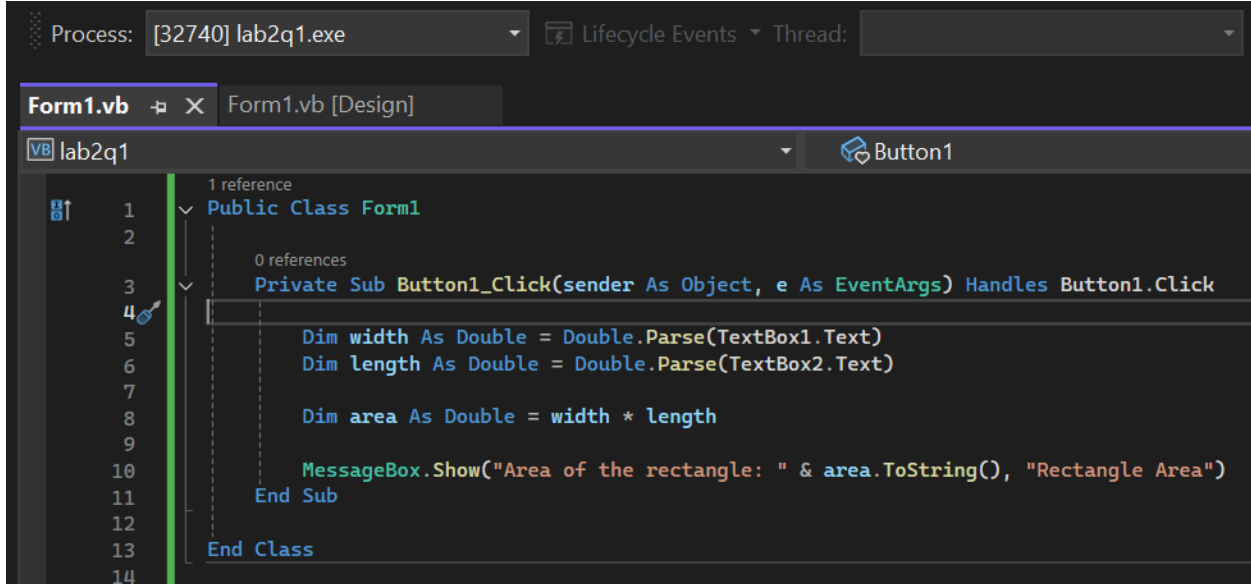
COURSE: 3 DDWD - DIPLOMA IN COMPUTER SCIENCE

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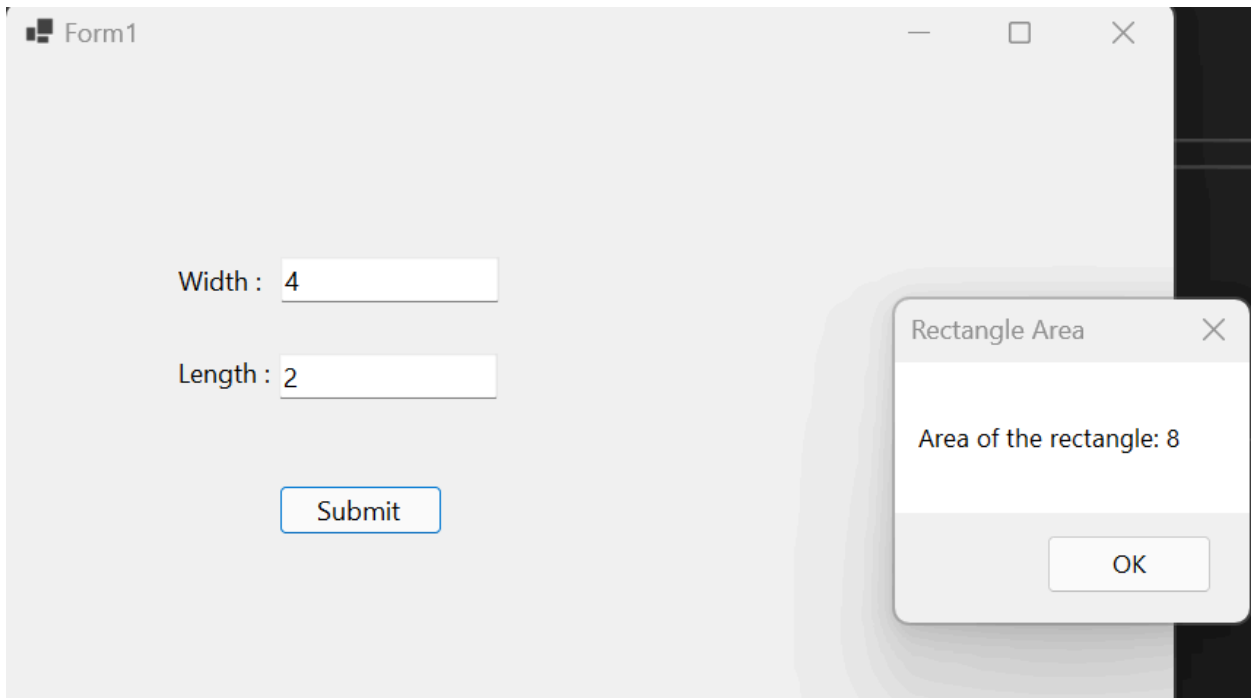
LECTURER'S NAME: MISS NOR SYAFIQAH

1. Write a VB.Net program which can read a value of width and length for a rectangle and calculate the area for the rectangle.

Answer:



```
1 Public Class Form1
2
3     Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
4
5         Dim width As Double = Double.Parse(TextBox1.Text)
6         Dim length As Double = Double.Parse(TextBox2.Text)
7
8         Dim area As Double = width * length
9
10        MessageBox.Show("Area of the rectangle: " & area.ToString(), "Rectangle Area")
11    End Sub
12
13 End Class
14
```



Form1

Width : 4

Length : 2

Submit

Rectangle Area

Area of the rectangle: 8

OK

- Based on the following Form, create a program to calculate the staff payment based on their hours working and rate per hour.

Answer:

The image shows a Visual Basic program in the IDE and its runtime window. The IDE window displays the code for a class named `Form1`. The code includes three event handlers: `btnCalculate_Click`, `btnClear_Click`, and `btnClose_Click`. The `btnCalculate_Click` handler calculates the payment based on the hours worked and the hourly rate. The `btnClear_Click` handler clears the input fields and the label. The `btnClose_Click` handler closes the form.

```
Public Class Form1
    ' Button to calculate the payment
    Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles btnCalculate.Click
        ' Declare variables for hours worked and rate per hour
        Dim hoursWorked As Double
        Dim ratePerHour As Double
        Dim payment As Double

        ' Get the input values from the text boxes
        hoursWorked = Convert.ToDouble(txtHoursWorked.Text)
        ratePerHour = Convert.ToDouble(txtRatePerHour.Text)

        ' Calculate the payment
        payment = hoursWorked * ratePerHour

        ' Display the payment in the label
        lblPayment.Text = "Payment: " & payment.ToString("C")
    End Sub

    ' Button to clear the input fields and label
    Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles btnClear.Click
        txtHoursWorked.Clear()
        txtRatePerHour.Clear()
        lblPayment.Text = ""
    End Sub

    ' Button to close the form
    Private Sub btnClose_Click(sender As Object, e As EventArgs) Handles btnClose.Click
        Me.Close()
    End Sub
End Class
```

The runtime window shows the form with the following data:

Field	Value
Name:	DaniaDayang
Hours Worked:	24
Hourly Rate:	1000
Total Pay:	Payment: \$24,000.00

The form has three buttons: Calculate, Clear, and Exit.

3. Write a program that can guide a consumer on how much to spend for food, rental, utility etc for each month based on their salary and their overtime pay. The guide for how much to allocate for each item are based on the following table:-

Type of expenses	Percentage of Allocation(%)
FOOD	20
RENTAL	30
TRANSPORT	20
UTILITY	10
SAVING	10
INSURANCE	10

Table 1: Allocation of expenses

User will enter their name, salary and overtime pay and program should then display how much user should spend their income on each of the expenses category. Design suitable User Interface for this program.(button, label, group box etc)

ANSWER:

```

Process: [23416] cutielab2.exe
Lifecycle Events Thread:
Form1.vb Form1.vb [Design]
cutielab2 btnCalculate

1 Public Class Form1
2
3     ' Set the title of the form
4     Private Sub Form1_Load(sender As Object, e As EventArgs) Handles MyBase.Load
5         Me.Text = "Expense Allocation Calculator"
6     End Sub
7
8     ' Button to calculate the expense allocations
9     Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles btnCalculate.Click
10        ' Declare variables for salary, overtime pay, and total income
11        Dim salary As Double
12        Dim overtimePay As Double
13        Dim totalIncome As Double
14
15        ' Get the input values from the text boxes
16        salary = Convert.ToDouble(txtSalary.Text)
17        overtimePay = Convert.ToDouble(txtOvertimePay.Text)
18
19        ' Calculate total income
20        totalIncome = salary + overtimePay
21
22        ' Calculate and display the allocation for each expense category
23        lblFood.Text = (totalIncome * 0.2).ToString("C")
24        lblRental.Text = (totalIncome * 0.3).ToString("C")
25        lblTransport.Text = (totalIncome * 0.2).ToString("C")
26        lblUtility.Text = (totalIncome * 0.1).ToString("C")
27        lblSaving.Text = (totalIncome * 0.1).ToString("C")
28        lblInsurance.Text = (totalIncome * 0.1).ToString("C")
29    End Sub

```

```

30
31 ' Button to clear the input fields and labels
32 0 references
33 Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles btnClear.Click
34     txtSalary.Clear()
35     txtOvertimePay.Clear()
36     lblFood.Text = ""
37     lblRental.Text = ""
38     lblTransport.Text = ""
39     lblUtility.Text = ""
40     lblSaving.Text = ""
41     Label9.Text = ""
42 End Sub
43
44 ' Button to close the form
45 0 references
46 Private Sub btnClose_Click(sender As Object, e As EventArgs) Handles btnClose.Click
47     Me.Close()
48 End Sub
49 End Class

```

Expense Allocation Calculator

Enter Salary:

Enter Overtime Pay:

Food:

Rental:

Transport:

Utility:

Saving:

Insurance:

4. Write a VB.Net program which will allow user calculate the sum, subtraction, multiplication or division of 2 numbers.

Your program must have :-

2 text box for user to enter 2 number

5 button

o Add, Subtract, Multiply, Divide, End

One label for result

```
1 reference
2
3 0 references
4 Public Class Form1
5     Private Sub addButton_Click(sender As Object, e As EventArgs) Handles addButton.Click
6         Dim num1 As Double = Double.Parse(number1TextBox.Text)
7         Dim num2 As Double = Double.Parse(number2TextBox.Text)
8         Dim result As Double = num1 + num2
9         answerTextBox.Text = result.ToString()
10    End Sub
11
12 0 references
13 Private Sub subtractButton_Click(sender As Object, e As EventArgs) Handles subtractButton.Click
14     Dim num1 As Double = Double.Parse(number1TextBox.Text)
15     Dim num2 As Double = Double.Parse(number2TextBox.Text)
16
17     Dim result As Double = num1 - num2
18     answerTextBox.Text = result.ToString()
19 End Sub
20
21 0 references
22 Private Sub multiplyButton_Click(sender As Object, e As EventArgs) Handles multiplyButton.Click
23     Dim num1 As Double = Double.Parse(number1TextBox.Text)
24     Dim num2 As Double = Double.Parse(number2TextBox.Text)
25
26     Dim result As Double = num1 * num2
27     answerTextBox.Text = result.ToString()
28 End Sub
29
30 0 references
31 Private Sub divideButton_Click(sender As Object, e As EventArgs) Handles divideButton.Click
32     Dim num1 As Double = Double.Parse(number1TextBox.Text)
33     Dim num2 As Double = Double.Parse(number2TextBox.Text)
34
35     If num2 = 0 Then
36         MessageBox.Show("Cannot divide by zero")
37         Return
38     End If
39
40     Dim result As Double = num1 / num2
41     answerTextBox.Text = result.ToString()
42 End Sub
43
44 0 references
45 Private Sub Button1_Click(sender As Object, e As EventArgs) Handles Button1.Click
46     Me.Close()
47 End Sub
48 End Class
49
```

Output Add:

A screenshot of a Windows application window titled "Form1". The window contains a simple calculator interface. At the top, there are standard window controls (minimize, maximize, close). Below these, the interface is divided into several sections. On the left, there are two labels: "Number 1" and "Number 2". Next to "Number 1" is a text box containing the value "6". Next to "Number 2" is a text box containing the value "3". Below these, there is a row of five buttons: "+", "-", "x", "/", and "End". The "+" button is highlighted with a blue border. Below this row, there is a label "Answer" followed by a text box containing the value "9".

Output Minus:

A screenshot of a Windows application window titled "Form1". The window contains a simple calculator interface. At the top, there are standard window controls (minimize, maximize, close). Below these, the interface is divided into several sections. On the left, there are two labels: "Number 1" and "Number 2". Next to "Number 1" is a text box containing the value "6". Next to "Number 2" is a text box containing the value "3". Below these, there is a row of five buttons: "+", "-", "x", "/", and "End". The "-" button is highlighted with a blue border. Below this row, there is a label "Answer" followed by a text box containing the value "3".

Output Multiply:

A screenshot of a Windows application window titled "Form1". The window has a light gray background and standard Windows window controls (minimize, maximize, close) in the top right corner. The interface contains the following elements:

- Two input fields labeled "Number 1" and "Number 2". "Number 1" contains the value "6" and "Number 2" contains the value "3".
- A row of five buttons: "+", "-", "x", "/", and "End". The "x" button is highlighted with a blue border, indicating it is the selected operation.
- An "Answer" label followed by an output field containing the value "18".

Output Divide:

A screenshot of a Windows application window titled "Form1". The window has a light gray background and standard Windows window controls (minimize, maximize, close) in the top right corner. The interface contains the following elements:

- Two input fields labeled "Number 1" and "Number 2". "Number 1" contains the value "6" and "Number 2" contains the value "3".
- A row of five buttons: "+", "-", "x", "/", and "End". The "/" button is highlighted with a blue border, indicating it is the selected operation.
- An "Answer" label followed by an output field containing the value "2".

5. Write a Vb.net based on the following program output:-

```
1 1 reference
2  Public Class Form1
3      Private TotalNumberOfBooks As Integer
4      Private TotalDiscountsGiven As Decimal
5      Private TotalDiscountedAmounts As Decimal
6      Private AverageDiscount As Decimal
7  0 references
8      Private Sub calcbtn_Click(sender As Object, e As EventArgs) Handles calcbtn.Click
9          Dim qty As Integer = Integer.Parse(qtybox.Text)
10         Dim price As Double = Double.Parse(pricebox.Text)
11         Dim eprice As Double = qty * price
12         epricebox.Text = eprice.ToString()
13         Dim disc As Double = eprice * 0.15
14         discbox.Text = disc.ToString()
15         Dim discprice As Double = eprice - disc
16         discpricebox.Text = discprice.ToString()
17         TotalNumberOfBooks += qty
18         TotalDiscountsGiven += disc
19         TotalDiscountedAmounts += discprice
20         AverageDiscount = TotalDiscountsGiven / TotalNumberOfBooks
21         UpdateSummary()
22     End Sub
23
24 0 references
25 Private Sub clearbtn_Click(sender As Object, e As EventArgs) Handles clearbtn.Click
26     qtybox.Text = ""
27     titlebox.Text = ""
28     pricebox.Text = ""
29     epricebox.Text = ""
30     discbox.Text = ""
31     discpricebox.Text = ""
32     TotalNumberOfBooks = 0
33     TotalDiscountsGiven = 0
34     TotalDiscountedAmounts = 0
35     AverageDiscount = 0
36     UpdateSummary()
37 End Sub
38
39 0 references
40 Private Sub exitbtn_Click(sender As Object, e As EventArgs) Handles exitbtn.Click
41     Me.Close()
42 End Sub
43
44 4 references
45 Private Sub UpdateSummary()
46     totalbook.Text = TotalNumberOfBooks.ToString()
47     totaldisc.Text = TotalDiscountsGiven.ToString()
48     totaldiscam.Text = TotalDiscountedAmounts.ToString()
49     avgdisc.Text = AverageDiscount.ToString()
50 End Sub
51
52 End Class
```

Output 1:

Form1

Book Sales

Quantity

Title

Price

Extended Price

15% Discount

Discounted Price

Summary

Total Number of Books

Total Discounts Given

Total Discounted Amounts

Average Discount

Output 2:

Form1

Book Sales

Quantity

Title

Price

Extended Price

15% Discount

Discounted Price

Summary

Total Number of Books

Total Discounts Given

Total Discounted Amounts

Average Discount

Output Clear:

Form1

Book Sales

Quantity

Title

Price

Extended Price

15% Discount

Discounted Price

Summary

Total Number of Books

Total Discounts Given

Total Discounted Amounts

Average Discount

Calculate Clear Sale Exit

6. Write a Vb.net based on the following program specification:-

User can enter width and height of box

Program will display a box according the width and height value entered by user.

```
1 reference
Public Class Form1
    Private rectangle As Rectangle
2
3
4 0 references
    Private Sub DrawButton_Click(sender As Object, e As EventArgs) Handles DrawButton.Click
5        Dim width As Integer = Integer.Parse(WidthTextBox.Text)
6        Dim height As Integer = Integer.Parse(HeightTextBox.Text)
7
8        rectangle = New Rectangle(100, 250, width, height)
9        Invalidate()
10
11        DimensionsLabel.Text = "Width " & width.ToString() & " Height " & height.ToString()
12    End Sub
13
14 0 references
    Private Sub RectangleDrawerForm_Paint(sender As Object, e As PaintEventArgs) Handles MyBase.Paint
15        e.Graphics.DrawRectangle(Pens.Black, rectangle)
16    End Sub
17
18 End Class
```

Output:

Enter width and height

Width 100

Height 250

Draw

Width 100 Height 250