

Option Explicit On

Option Strict On

Imports System.Text.RegularExpressions

Imports System.Windows.Forms

'Name : CityHoops.vb

'Description: Displaying basketball game statistics

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Public Class frmCityHoops1

Private Sub doBasketball()

Dim sName As String = ""

Dim iPointsScored As Integer = 0

Dim iNumberOfFouls As Integer = 0

Dim sGender As String = ""

Dim iHighestPoints As Integer = 0

Dim iHighestFouls As Integer = 0

Dim iCounter As Integer = 0

Dim iGrandPoint As Integer = 0

Dim iGrandFoul As Integer = 0

'Integer are for numbers and Strings are for letters'

'Implementing subroutines'

Dim bAllFieldsValid As Boolean = True

sName = CStr(txtName.Text)

iPointsScored = CInt(txtPointsScored.Text)

iNumberOfFouls = CInt(txtNumberOfFouls.Text)

lbxName.Items.Add(sName)

lbpoinsscored.Items.Add(iPointsScored)

lbnNumberOfFouls.Items.Add(iNumberOfFouls)

sGender = CStr(txtGender.Text)

lbgGender.Items.Add(sGender)

'Integer are for numbers and Strings are for letters'

End Sub

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

Call doBasketball()

'Inputting basketball information after typed

If IsNumeric(txtPointsScored.Text) Then

Debug.Print("value is numeric")

Else

Debug.Print("value is not numeric")

End If

Dim Pattern As Regex = New Regex("[a-zA-Z]+\$")

'Validation of letters and numbers'

If Pattern.IsMatch(txtGender.Text) Then

MsgBox("value is alphanumeric")

Else MsgBox("No Numbers in Genders")

End If

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Dim Patterns As Regex = New Regex("^[0-6]+$")
'Validation of letters and numbers'
If Patterns.IsMatch(TxtNumberOfFouls.Text) Then
    MsgBox("value is alphanumeric")
Else MsgBox("Players can only get 6 fouls per game")
End If
End Sub
Private Sub btnClear_Click(sender As Object, e As EventArgs) Handles btnClear.Click
    lbxName.Items.Clear()
    lbxNumberOfFouls.Items.Clear()
    lbxPointsScored.Items.Clear()
    lbxGender.Items.Clear()
    lblGrandFoul.Text = ""
    lblGrandPoint.Text = ""
    lblHighestFouls.Text = ""
    lblHighestPoints.Text = ""
    'Since listbox is not the same function as label, clear functions are different
    Call makeTextBoxesWhite()
End Sub
Private Sub makeTextBoxesWhite()
    txtname.BackColor = Color.White
    TxtNumberOfFouls.BackColor = Color.White
    txtPointsScored.BackColor = Color.White
    txtGender.BackColor = Color.White
End Sub
Private Sub btnCalculate_Click(sender As Object, e As EventArgs) Handles
btnCalculate.Click
    If lbxNumberOfFouls.Items.Count > 0 And lbxPointsScored.Items.Count > 0 Then
        Call doCalucations()
    Else MsgBox("error")
        'scores and fouls must be more than 0 to caluculate'
    End If
End Sub
Private Sub doCalucations()
    Call getHighestPoints()
    Call getHighestFouls()
    Call getGrandPoint()
    Call getGrandFoul()
    'calculating statistics'
End Sub
Private Sub getHighestPoints()
    Dim iHighestPoints As Integer = 0
    Dim iCounter As Integer = 0
    Dim iPointsScored As Integer = 0
    Dim iTempVal As Integer = 0

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iPointsScored = lbxPointsScored.Items.Count
While iCounter < iPointsScored
    iTempVal = CInt(lbxPointsScored.Items(iCounter))
    If iTempVal > iHighestPoints Then
        iHighestPoints = iTempVal
    End If
    iCounter = iCounter + 1
End While
lblHighestPoints.Text = CStr(iHighestPoints)
'System calculates which of the points from each player is the highest for each game'
End Sub

Private Sub getHighestFouls()
    Dim iHighestFouls As Integer = 0
    Dim iCounter As Integer = 0
    Dim iNumberOfFouls As Integer = 0
    Dim iTempVal As Integer = 0

    iNumberOfFouls = lbxNumberOfFouls.Items.Count
    While iCounter < iNumberOfFouls
        iTempVal = CInt(lbxNumberOfFouls.Items(iCounter))
        If iTempVal > iHighestFouls Then
            iHighestFouls = iTempVal
        End If
        iCounter = iCounter + 1
    End While
    lblHighestFouls.Text = CStr(iHighestFouls)
    'System calculates which of the fouls from each player is the highest for each game'
End Sub

Private Sub getGrandPoint()
    Dim iGrandPoint As Integer = lbxPointsScored.Items.Count
    Dim iEvaluate As Integer = 0
    Dim iCounter As Integer = 0
    Dim iPointsScored As Integer = 0

    iPointsScored = lbxPointsScored.Items.Count

    iGrandPoint = 0
    For iCounter = 0 To (iPointsScored - 1)
        iEvaluate = CInt(lbxPointsScored.Items(iCounter))
        If iEvaluate > 0 Then
            iGrandPoint = iGrandPoint + iEvaluate
        End If
    Next
    lblGrandPoint.Text = CStr(iGrandPoint)
    'System calculates the total points for the game'
End Sub

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Private Sub getGrandFoul()  
    Dim iGrandFoul As Integer = lbxNumberOfFouls.Items.Count  
    Dim iEvaluate As Integer = 0  
    Dim iCounter As Integer = 0  
    Dim iNumberOfFouls As Integer = 0  
  
    iNumberOfFouls = lbxNumberOfFouls.Items.Count  
  
    iGrandFoul = 0  
    For iCounter = 0 To (iNumberOfFouls - 1)  
        iEvaluate = CInt(lbxNumberOfFouls.Items(iCounter))  
        If iEvaluate > 0 Then  
            iGrandFoul = iGrandFoul + iEvaluate  
        End If  
    Next  
    lblGrandFoul.Text = CStr(iGrandFoul)  
    'system calculates the total fouls for the game"  
End Sub  
End Class
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