Public Class formPayroll

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'- File Name : PayrollSystem\_Dang.frm -

'- Part of Project: PayrollSystem -

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'- Written By: Binh D. Dang -

'- Written On: January 13th, 2022 -

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'- File Purpose: - -

'- This file contains the main form for the entire appli- -

'- cation. All user input is gathered on this form. The -

'- calculations of the payrol which are performed by the application -

'- reside in this file as well and user can use it on the fly.

'- Finally all generated output is created and put in a text file

'- name payroll.txt -

'------------------------------------------------------------

'- Program Purpose: -

'- The purpose of this program is to handle the calculations-

'- of each employee's salary when input Wage and Hour -

'- company, then program can save the employee's name, ID,

'- wages, and hours to the text file for later use.

'- Program requires user to input name, id, wage, and hours.

'- Then user will have option to calculate wages, save it,

'- or cancel it when user doesn't want to save it in the txt file

'------------------------------------------------------------

'- Global Variable Dictionary (alphabetically):

'- ctr - global integer for knowing what employee are in the track

'- Employee - A user defined structure which will hold –

'- the employee's name and ID along with all numeric -

'- values for the project currently being -

'- calculated. -

'- objMyStreamWriter - global Stream Writer for Write down to txt file

'- path - global String that contains the path to create the txt file

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'Global Constant

'-rate - overtime rate

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Structure Employee

Dim name As String 'name of employee

Dim ID As String 'ID of the employee

Dim hour As String 'Hours employee work

Dim wage As String 'Wage per hour of employee

End Structure

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Dim path As String = "payroll.txt" ' global String that contains the path to create the txt file

Dim employees() As Employee 'Structure variable array name employees() that contains the necessary information

Dim objMyStreamWriter As System.IO.StreamWriter ' global Stream Writer for Write down to txt file

Dim ctr As Integer = 0 'global integer for knowing what employee are in the track

'---- GLOBAL CONSTANT---

Const rate As Double = 1.5

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

'------------------------------------------------------------

'- Subprogram Name: PayrollSystem\_DANG -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 13, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

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'- This subprogram started when the form is loaded and start

'- checking if the payroll File is existed in the computer

'- if the file not existed, create the file and start add the employee

'- subprocedure.

'- If the file existed, start reading the first emloyee using the

'- ReadFile() procedure

'------------------------------------------------------------

'- Local Variable Dictionary (alphabetically): -

'- payrollFile- check if the file existed. if existed, it will contain the name path

'- if not , it will be blank

'------------------------------------------------------------

Dim payrollFile = Dir(path)

'If the file is not found it will create a text file

'else open and read the File

If payrollFile = "" Then

objMyStreamWriter = System.IO.File.CreateText(path)

objMyStreamWriter.Close()

AddEmployee()

Else

ReadFile()

End If

End Sub

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

'------------------------------------------------------------

'- Subprogram Name: btnCalc -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 13, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

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'- This subroutine extracts the values entered from the user-

'- into the variable. Then calculate the wage and change the label

'- start with 'the Employee is due'

'------------------------------------------------------------

'- Parameter Dictionary (in parameter order): -

'- aCompanyBillInfo - The structure variable which contains -

'- all information for the project from -

'- which the program is creating a bill. -

'------------------------------------------------------------

'- Local Variable Dictionary (alphabetically): -

'- h - input hours

'- totalWage - multiply the wage with hours if the salary is checked

'- then multiply it with 40

'- w - input wage

'------------------------------------------------------------

Dim h As Double = CDbl(txtHours.Text)

Dim w As Double = CDbl(txtWages.Text)

Dim totalWage As Double

'Alogrith check if the boc is checked, then calculate the wage

If chkSalaried.Checked = True Then

totalWage = 40.0 \* w

Else

If (h <= 40 And h > 0) Then

totalWage = w \* h

Else

totalWage = w \* 40 + (h - 40) \* rate \* w

End If

End If

'Change the text lable to know how much the salary is

lblWage.Text = "Employee is due " & FormatCurrency(totalWage)

End Sub

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

'------------------------------------------------------------

'- Subprogram Name: btnAdd -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 14, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'- -

'- This subroutine is called whenever the user clicks the -

'- "Add NEw Employee" button. This routine will call AddEmployee sub-

'------------------------------------------------------------

AddEmployee()

End Sub

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

'------------------------------------------------------------

'- Subprogram Name: btnSave -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 14, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'- -

'- This subroutine is called whenever the user clicks the -

'- Save button. This routine will validate everything from the text boxes

'- Then put to the note then save it if input right, else show an error message

'- Later it will call the subprocedure Read File

'------------------------------------------------------------

'- Parameter Dictionary (in parameter order): -

'- objMyStreamWriter - StreamWriter variable for writing to txt

'------------------------------------------------------------

'- Local Variable Dictionary (alphabetically): -

'- (None) -

'------------------------------------------------------------

objMyStreamWriter = My.Computer.FileSystem.OpenTextFileWriter(path, True)

'Validate the INput making sure that user input is right

If IsNumeric(txtHours.Text) And IsNumeric(txtWages.Text) Then

objMyStreamWriter.WriteLine(txtName.Text & ", " & txtID.Text & ", " & txtHours.Text & ", " & txtWages.Text)

objMyStreamWriter.Close()

'When starting the program and add new employee, ctr will set to one

If ctr > 0 Then

ctr = employees.Count()

End If

ReadFile()

Else

MessageBox.Show("Input Error")

objMyStreamWriter.Close()

AddEmployee()

End If

End Sub

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

'------------------------------------------------------------

'- Subprogram Name: btnAdd -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 14, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'- -

'- This subroutine is called whenever the user clicks the -

'- "Cancel" button. This routine will call Readile subprocedure

'------------------------------------------------------------

ReadFile()

End Sub

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

'------------------------------------------------------------

'- Subprogram Name: btnNext -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 15, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'- -

'- This subroutine is called whenever the user clicks the -

'- ">>" button. This routine will increase the counter to know

'- what user it's on and then call ReadFile subprocedure

'------------------------------------------------------------

ctr = ctr + 1

ReadFile()

End Sub

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

'------------------------------------------------------------

'- Subprogram Name: btBack -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 15, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'- -

'- This subroutine is called whenever the user clicks the -

'- "<<" button. This routine will decrease the counter to know

'- what user it's on and then call ReadFile subprocedure

'------------------------------------------------------------

ctr = ctr - 1

ReadFile()

End Sub

Sub ReadFile()

'------------------------------------------------------------

'- Subprogram Name: ReadFile -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 15, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'- -

'- This subroutine will hide the button save and cancel when the

'- employee is being read. Then it will turn the txtbox to read only to not allow

'- user to edit the data field. Then it showed the the Back, Next and Add employee button

'- Also when the new employee is being read, it also delete the label, so

'- user won't get confused by reading.

'- Then, the sub procedure will find the file with the path to read the file, then read the employee structure

'-by reading it line by line,

'-Then, it will check the counter if it is in the right position else show the message box

'-In case there are no employee is written in the file (first started), it move to addEmployee

'------------------------------------------------------------

'- Parameter Dictionary (in parameter order): -

'- employees - This is the structure containing all -

'- of the current employee's information. -

'------------------------------------------------------------

'- Local Variable Dictionary (alphabetically): -

'- data - Get the information from spliting the data in the file line by line

'- line - The result from reading the input

'- n - the total number of employee

'------------------------------------------------------------

'When reading employeemchange all txtBox to read only

txtName.ReadOnly = True

txtHours.ReadOnly = True

txtID.ReadOnly = True

txtWages.ReadOnly = True

'hide save and cancel button

btnSave.Visible = False

btnCancel.Visible = False

'show the back, next,and add employee button

btnBack.Visible = True

btnNext.Visible = True

btnAdd.Visible = True

'empty the label

lblWage.Text = ""

'This section put everything in the file to the employee structure

Dim data(3) As String

Dim line() As String

line = IO.File.ReadAllLines(path)

Dim n As Integer = line.Count - 1

ReDim employees(n)

For i As Integer = 0 To n

data = line(i).Split(","c)

employees(i).name = data(0)

employees(i).ID = data(1)

employees(i).hour = data(2)

employees(i).wage = data(3)

Next

'Check the ctr then make it show approriate title and text!

If ctr <= n And ctr >= 0 Then

txtName.Text = employees(ctr).name

txtID.Text = employees(ctr).ID

txtHours.Text = FormatNumber(employees(ctr).hour, 2)

txtWages.Text = FormatNumber(employees(ctr).wage, 2)

Me.Text = "Payroll System - Employee " & ctr + 1 & "/" & n + 1

ElseIf ctr < 0 Then

MessageBox.Show("You cannot move pass the first record!")

ctr = ctr + 1

ElseIf ctr > n Then

MessageBox.Show("You cannot move pass the last record!")

ctr = ctr - 1

Else

AddEmployee()

End If

End Sub

Sub AddEmployee()

'------------------------------------------------------------

'- Subprogram Name: ReadFile -

'------------------------------------------------------------

'- Written By: Binh Dang -

'- Written On: January 15, 2022 -

'------------------------------------------------------------

'- Subprogram Purpose: -

'-

'- This subroutine will show the button save and cancel when the

'- employee is being read. When adding employee, reset all the txtboxes and make them editable

'- Also Hide the button add new employee, next, and back. Then change it to the approriate title

'------------------------------------------------------------

'- Parameter Dictionary (in parameter order): -

'none

'------------------------------------------------------------

'- Local Variable Dictionary (alphabetically): -

'- none

'------------------------------------------------------------

'empty all the textbox

txtName.Text = ""

txtID.Text = ""

txtHours.Text = ""

txtWages.Text = ""

' Make all textboxes editable

txtName.ReadOnly = False

txtHours.ReadOnly = False

txtID.ReadOnly = False

txtWages.ReadOnly = False

'Show button save and cancel

btnSave.Visible = True

btnCancel.Visible = True

'Hide button Next, Back, and Add New Employee

btnBack.Visible = False

btnNext.Visible = False

btnAdd.Visible = False

'Change the form title

Me.Text = "Payroll System - Add New Employee"

End Sub

End Class