# VB Code for frmShinyCars

Imports System

Imports System.ComponentModel

Imports System.IO

Imports System.Text

Public Class frmShinyCars

'Name: Sean Holschier

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'Date Finished: 28/03/18

'Description: A program that stores the details of secondhand cars in stock. The program allows you to add cars and search for details within the database.

'Data Dictionary: Name: Found Type: boolean Size: 1 Scope: local Description: A flag for when a car matches the search

' Name: FileNum Type: integer Size: 3 Scope: global Description: The file number available for use

' Name: FileName Type: string Size: 30 Scope: global Description: Name of file that stores the car details

' Name: Reg Type: string Size: 6 Scope: local Description: car registration

' Name: Make Type: string Size: 15 Scope: local Description: car make

' Name: Model Type: string Size: 15 Scope: local Description: car model

' Name: Year Type: integer Size: 4 Scope: local Description: car creation year

' Name: Odometer Type: real Size: 6.2 Scope: local Description: car's odometer in kilometers

' Name: Cost Type: real Size: 6.2 Scope: local Description: car cost

' Name: EnReg Type: string Size: 6 Scope: local Description: car registration (for encryption)

' Name: EnMake Type: string Size: 15 Scope: local Description: car make (for encryption)

' Name: EnModel Type: string Size: 15 Scope: local Description: car model (for encryption)

' Name: EnYear Type: integer Size: 4 Scope: local Description: car creation year (for encryption)

' Name: EnOdometer Type: real Size: 6.2 Scope: local Description: car's odometer in kilometers (for encryption)

' Name: EnCost Type: real Size: 6.2 Scope: local Description: car cost (for encryption)

' Name: TempReg Type: string Size: 6 Scope: local Description: car registration (temporary)

' Name: TempMake Type: string Size: 15 Scope: local Description: car make (temporary)

' Name: TempModel Type: string Size: 15 Scope: local Description: car model (temporary)

' Name: TempYear Type: integer Size: 4 Scope: local Description: car creation year (temporary)

' Name: TempOdometer Type: real Size: 6.2 Scope: local Description: car's odometer in kilometers (temporary)

' Name: TempCost Type: real Size: 6.2 Scope: local Description: car cost (temporary)

' Name: Search Type: string Size: 99 Scope: local Description: What user is searching for

Dim FileNum As Integer = FreeFile() 'Declares name of file to be used and the file number.

Dim FileName As String = "ShinyCarsDatabase.txt"

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

Dim Add As New frmAddCar 'Takes user to frmAddCar

Add.Show()

Add = Nothing

Me.Hide()

End Sub

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

Dim Search As New frmSearchCar 'Takes user to frmSearchCar

Search.Show()

Search = Nothing

Me.Hide()

End Sub

Private Sub frmShinyCars\_Load(sender As Object, e As EventArgs) Handles Me.Load

Dim Reg, Make, Model, Year, Odometer, Cost As String

Dim EnReg, EnMake, EnModel, EnYear, EnOdometer, EnCost As String

Dim Details As ListViewItem

ltvCars.Items.Clear()

If Not (File.Exists(FileName)) Then 'Checks whether file exists. If not, a message comes up and only the add car button is enabled.

MsgBox("There is no data to read. Please add a new record.")

btnSearch.Enabled = False

Else

btnSearch.Enabled = True

FileOpen(FileNum, FileName, OpenMode.Input) 'Decrypts car details from text file.

Do Until EOF(FileNum)

Reg = LineInput(FileNum)

Make = LineInput(FileNum)

Model = LineInput(FileNum)

Year = LineInput(FileNum)

Odometer = LineInput(FileNum)

Cost = LineInput(FileNum)

For Each c In Reg

c = Chr(Asc(c) Xor 12)

EnReg = EnReg + c

Next

For Each c In Make

c = Chr(Asc(c) Xor 12)

EnMake = EnMake + c

Next

For Each c In Model

c = Chr(Asc(c) Xor 12)

EnModel = EnModel + c

Next

For Each c In Year

c = Chr(Asc(c) Xor 12)

EnYear = EnYear + c

Next

For Each c In Odometer

c = Chr(Asc(c) Xor 12)

EnOdometer = EnOdometer + c

Next

For Each c In Cost

c = Chr(Asc(c) Xor 12)

EnCost = EnCost + c

Next

Details = ltvCars.Items.Add(EnReg) 'Adds decrypted car details to the listview

Details.SubItems.Add(EnMake)

Details.SubItems.Add(EnModel)

Details.SubItems.Add(EnYear)

Details.SubItems.Add(EnOdometer)

Details.SubItems.Add(EnCost)

EnReg = ""

EnMake = ""

EnModel = ""

EnYear = ""

EnOdometer = ""

EnCost = ""

Loop

FileClose(FileNum)

End If

End Sub

Private Sub frmShinyCars\_Closed(sender As Object, e As EventArgs) Handles Me.Closed

End 'If user closes the form then terminate the whole program.

End Sub

End Class

# VB Code for frmAddCar

Imports System

Imports System.IO

Imports System.Text

Public Class frmAddCar

Dim FileNum As Integer = FreeFile() 'Declares name of file to be used and the file number.

Dim FileName As String = "ShinyCarsDatabase.txt"

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

If Not (File.Exists(FileName)) Then 'Checks whether file exists. If not, the file is created.

Dim fs As FileStream = File.Create(FileName)

fs.Close()

End If

If Not txtAddReg.Text = "" And Not txtAddMake.Text = "" And Not txtAddModel.Text = "" And Not txtAddYear.Text = "" And Not txtAddOdometer.Text = "" And Not txtAddCost.Text = "" Then

If IsNumeric(txtAddYear.Text) And IsNumeric(txtAddOdometer.Text) And IsNumeric(txtAddCost.Text) Then 'Validation for all the textboxes.

If txtAddYear.Text > 1800 Then

If txtAddOdometer.Text > 0 And txtAddOdometer.Text < 1000000 Then

If txtAddCost.Text > 0 And txtAddCost.Text < 1000000 Then

Dim EnReg, EnMake, EnModel, EnYear, EnOdometer, EnCost As String

Dim TempReg As String = txtAddReg.Text 'Transfers text in textboxes to variables.

Dim TempMake As String = txtAddMake.Text

Dim TempModel As String = txtAddModel.Text

Dim TempYear As String = txtAddYear.Text

Dim TempOdometer As String = txtAddOdometer.Text

Dim TempCost As String = txtAddCost.Text

For Each c In TempReg 'Encrypts all the car details.

c = Chr(Asc(c) Xor 12)

EnReg = EnReg + c

Next

For Each c In TempMake

c = Chr(Asc(c) Xor 12)

EnMake = EnMake + c

Next

For Each c In TempModel

c = Chr(Asc(c) Xor 12)

EnModel = EnModel + c

Next

For Each c In TempYear

c = Chr(Asc(c) Xor 12)

EnYear = EnYear + c

Next

For Each c In TempOdometer

c = Chr(Asc(c) Xor 12)

EnOdometer = EnOdometer + c

Next

For Each c In TempCost

c = Chr(Asc(c) Xor 12)

EnCost = EnCost + c

Next

FileOpen(FileNum, FileName, OpenMode.Append) 'Writes encrypted car details to text file.

PrintLine(FileNum, EnReg + vbCrLf + EnMake + vbCrLf + EnModel + vbCrLf + EnYear + vbCrLf + EnOdometer + vbCrLf + EnCost)

FileClose(FileNum)

txtAddReg.Text = "" 'Clears textboxes.

txtAddMake.Text = ""

txtAddModel.Text = ""

txtAddYear.Text = ""

txtAddOdometer.Text = ""

txtAddCost.Text = ""

Dim Back As New frmShinyCars 'Takes user back to frmShinyCars

Back.Show()

Back = Nothing

Me.Hide()

Else

MsgBox("Please add a cost from 0 to 999999.99")

End If

Else

MsgBox("Please add a distance from 0 to 999999.99")

End If

Else

MsgBox("Please add a year above 1800")

End If

Else

MsgBox("Please insert only numbers in Year, Odometer and Cost")

End If

Else

MsgBox("Please insert details")

End If

End Sub

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

Dim Back As New frmShinyCars 'Takes user back to frmShinyCars

Back.Show()

Back = Nothing

Me.Hide()

End Sub

Private Sub frmAddCar\_Closed(sender As Object, e As EventArgs) Handles Me.Closed

End 'If user closes the form then terminate the whole program.

End Sub

End Class

# VB Code for frmSearchCar

Imports System

Imports System.IO

Imports System.Text

Public Class frmSearchCar

Dim FileNum As Integer = FreeFile()

Dim FileName As String = "ShinyCarsDatabase.txt"

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

Dim Back As New frmShinyCars 'Takes user to frmShinyCars.

Back.Show()

Back = Nothing

Me.Hide()

End Sub

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

Dim Reg, Make, Model, Year, Odometer, Cost As String

Dim EnReg, EnMake, EnModel, EnYear, EnOdometer, EnCost As String

Dim Details As ListViewItem

Dim Found As Boolean = False

ltvSearchResult.Items.Clear()

If Not txtSearch.Text = "" Then 'Checks search bar is not empty. Otherwise send message.

FileOpen(FileNum, FileName, OpenMode.Input)

Do Until EOF(FileNum) 'Decrypts car details from text file.

Reg = LineInput(FileNum)

Make = LineInput(FileNum)

Model = LineInput(FileNum)

Year = LineInput(FileNum)

Odometer = LineInput(FileNum)

Cost = LineInput(FileNum)

For Each c In Reg

c = Chr(Asc(c) Xor 12)

EnReg = EnReg + c

Next

For Each c In Make

c = Chr(Asc(c) Xor 12)

EnMake = EnMake + c

Next

For Each c In Model

c = Chr(Asc(c) Xor 12)

EnModel = EnModel + c

Next

For Each c In Year

c = Chr(Asc(c) Xor 12)

EnYear = EnYear + c

Next

For Each c In Odometer

c = Chr(Asc(c) Xor 12)

EnOdometer = EnOdometer + c

Next

For Each c In Cost

c = Chr(Asc(c) Xor 12)

EnCost = EnCost + c

Next

Dim Search As String = LCase(txtSearch.Text)

If LCase(EnReg).Contains(Search) = True Or LCase(EnMake).Contains(Search) = True Or LCase(EnModel).Contains(Search) = True Or LCase(EnYear).Contains(Search) = True Or LCase(EnOdometer).Contains(Search) = True Or LCase(EnCost).Contains(Search) = True Then

Details = ltvSearchResult.Items.Add(EnReg) 'If car details contain the search text, add to listview.

Details.SubItems.Add(EnMake)

Details.SubItems.Add(EnModel)

Details.SubItems.Add(EnYear)

Details.SubItems.Add(EnOdometer)

Details.SubItems.Add(EnCost)

Found = True

End If

EnReg = ""

EnMake = ""

EnModel = ""

EnYear = ""

EnOdometer = ""

EnCost = ""

Loop

If Found = False Then

MsgBox("No results found") 'If no results were found, send message.

End If

FileClose(FileNum)

Else

MsgBox("Search bar is blank")

End If

End Sub

Private Sub frmSearchCar\_Closed(sender As Object, e As EventArgs) Handles Me.Closed

End 'If the form is closed then terminate the whole program.

End Sub

End Class