**VB CODE:**

Public Class frmShinyCarDealership

'Name: Zach Smith

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'Last Updated: 29 May 2020

'Description: This program load up a document then searches car models

'Name Integer 2 Global Maximun of 99 cars details

'Index Boolean 1 Global A flag for when the car registration is found

'Reg String 6 Global Car registration

'Make String 15 Global Make of car

'Model String 10 Global Model of car

'Year\_made Integer 4 Global Year manufacture of car

'Odometer Real 6.1 Global Kilometers travelled by car

'Cost Real 6.2 Global Cost of car with a maximum of $999,999.00

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

'Check if text input is blank, if yes display error message, else

If txtPath.Text = "" Or txtPath.Text = " " Then

MessageBox.Show("Enter the text file name", "ShinyCars", MessageBoxButtons.OK, MessageBoxIcon.Exclamation)

Else

'Check if text input is not the correct text file, if yes, display error message, else

If txtPath.Text <> "ShinyCars.txt" Then

MessageBox.Show("The only file accepted is 'Shiny Cars.txt'", "ShinyCars", MessageBoxButtons.OK, MessageBoxIcon.Exclamation)

Else

Dim FileName As String = "ShinyCars.txt"

Dim CarData As ListViewItem 'Declare CarData variable as type ListViewItem

Dim FileNum As Integer = FreeFile()

Dim reg, make, model, year\_made, odometer, cost As String 'Declare 6 variables (mobile must be string to work)

FileOpen(1, FileName, OpenMode.Input)

Do Until EOF(FileNum) 'Read until the end of the file

reg = Decrypt(LineInput(FileNum))

make = Decrypt(LineInput(FileNum))

model = Decrypt(LineInput(FileNum))

year\_made = Decrypt(LineInput(FileNum))

odometer = Decrypt(LineInput(FileNum))

cost = Decrypt(LineInput(FileNum))

CarData = New ListViewItem

'Registration is in the first column, Make is in the second column, Model is in the third column, Year is in the fourth column, Odometer is in the fifth column, Cost is in the sixth column

CarData.Text = reg

CarData.SubItems.Add(make)

CarData.SubItems.Add(model)

CarData.SubItems.Add(year\_made)

CarData.SubItems.Add(Format(Val(odometer), "###,###.# km"))

CarData.SubItems.Add(Format(Val(cost), "$###,###.##"))

lvwCars.Items.Add(CarData) 'Display the info from the textfile in to the listview

Loop

FileClose(FileNum)

btnLoad.Enabled = False

txtSearch.Text = ""

txtSearch.Enabled = True

End If

End If

End Sub

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

txtPath.Clear() 'lears path to file and refreshes the list view

txtPath.Focus()

btnLoad.Enabled = True

lvwCars.Items.Clear()

End Sub

Private Sub txtSearch\_TextChanged(sender As Object, e As EventArgs) Handles txtSearch.TextChanged

'Makes sure to select a full row

lvwCars.FullRowSelect = True

'Highlight the registration in the listview corresponding to the text in the textbox

Dim i, strLength As Integer

strLength = txtSearch.Text.Length

lvwCars.SelectedItems.Clear()

For i = 0 To lvwCars.Items.Count - 1

If lvwCars.Items(i).Text.ToUpper.StartsWith(txtSearch.Text.ToUpper) Then

lvwCars.Items(i).Selected = True

lvwCars.Update()

End If

Next

End Sub

Function Decrypt(data As String)

Dim Result = ""

Dim EncryptionFactor As Integer = 3

For Each letter As String In data

Result += Chr(Asc(letter) + EncryptionFactor)

Next

Return Result

End Function

End Class

**TEST TABLE:**

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Type of Test** | **Test Data** | **Expected Results** | **Actual Results** | **Note/Further Explanation** |
| **Type Test** | txtPath – ‘a’ | Display error |  |  |
| **Type Test** | txtSearch – ‘X’ | Highlight XOG695 and XIJ383 |  |  |
| **Blank Check** | txtPath – ‘’ or ‘ ‘ | Display error |  |  |
| **Blank Check** | txtSearch – ‘’ or ‘ ‘ | Nothing will happen |  |  |
| **Functionally Test** | txtPath – ‘ShinyCars.txt’ | Display Car information in list view |  |  |
| **Functionally Test** | txtPath – ‘XOG695’ | Highlight XOG695 in list view |  |  |