**VISUAL BASIC PROGRAMMING (44)**

##### **Technical Task**

***KEY***

##### Regional—2013

***Total Points \_\_\_\_\_\_\_ (485)***

***Graders:***

Please double-check and verify all scores!

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*Workplace Skills Assessment Program* competition.

|  |  |
| --- | --- |
| Grading Rubric* **Scoring the project**
	+ Created solution/project as specified with contestant number (*2@5pts)*
	+ Created an icon and images folder (*2@5pts*) ……………………..……
	+ Populated the icon/images folders with the correct files (*2@5pts*) ….
* **Scoring the form:**
	+ Heading label is very similar to heading shown in fig 1……………….
	+ Form contains both menus either coded or tool bar object (*2@10pts*) ..
	+ ListBox, lstPics, present to select pictures ………….………..………..
	+ One large pictureBox to display the selected picture …………………
	+ 3 pictureBoxes for the “*display all pictures”* routine (*3@5pts)*.................
	+ Label to display text “Click for larger image”……………………………
	+ Label with the <*contestant number>* in lower the right corner ……..…
* **Scoring the code:**
	+ Option Strict is set on ……………………………………………………..
	+ Two regions were created as indicated in the specs (*2@5pts*) …….....
	+ Code was written to load lstImages. The items prop was not used
	+ Code was written to fetch images utilizing a relative path as indicated
	+ The *Under construction* messageBox is contained in a subroutine that acts as a shared event procedure as indicated in the specs …….
	+ Each sub routine is documented ………………….…………………….
	+ The project is documented (above option strict)…….……..………….
	+ Standard prefix naming conventions utilized on controls/variables …
* **Scoring the Execution, Main Menu**
	+ Main Menu displays on open as indicated in figure 1 ………..…..……
	+ Photography menu is NOT displayed on open ………………………..
	+ Main Menu has 3 menu pads each with the appropriate icon (*3@5pts*)
	+ Heading is displayed ………………………………….……..……..……..
	+ Heading is properly docked/anchored when form is stretched ……….
	+ *File* menu pad has one submenu with icon …………………….............
	+ *Exit* menu pad exits the program ……………….…………………….….
	+ *Photography* menu pad redirects the user to the *Photography* menu..
	+ *Music* menu pad displays the “*Under construction”* message ………
* **Scoring the Execution, Photography Menu**
	+ Heading remains centered left/right and anchored top when rendered form is stretched……………………………………………………….…...
	+ *Photography* Menu displays on open *see fig 1* …………………………..
	+ Main menu is NOT displayed on open …………………………...……..
	+ *Photography* Menu has 3 menu pads with appropriate icons (*3@5pts)*
	+ *My Photography* menu pad displays the submenus *see fig 4* ………….
	+ *IstPics* displays correct data when *Select Picture* padis *clicked …….*
	+ Correct picture displays when selected in *lstPics see fig 5 …………….*
	+ All pictures display when *Display all Pictures* menu pad is clicked *fig 6*
	+ Correct Small image, when clicked, displays in large picBox *see fig 7....*
	+ *Photography Online* pad displays *Under Construction* when clicked..
	+ *To Main Menu* pad returns user to the Main Menu …………………….
	+ When navigating between *select Pic* and *Display All Pics, lstPics* does not duplicate list items (remains at 3 items plus <select..> AND picBoxes clear and are appropriately visible (2*@10pts)*

**TOTAL APPLICATION POINTS** |   \_\_\_\_\_(10)\_\_\_\_\_(10)\_\_\_\_\_(10) \_\_\_\_\_\_(30)\_\_\_\_\_(05)\_\_\_\_\_(20)\_\_\_\_\_(10)\_\_\_\_\_(05)\_\_\_\_\_(15)\_\_\_\_\_(05)\_\_\_\_\_(10) \_\_\_\_\_\_(70)\_\_\_\_\_(05) \_\_\_\_\_(10)\_\_\_\_\_(20)\_\_\_\_\_(30)\_\_\_\_\_(25)\_\_\_\_\_(15)\_\_\_\_\_(05)\_\_\_\_\_(10) \_\_\_\_\_\_(120)\_\_\_\_\_(05)\_\_\_\_\_(10)\_\_\_\_\_(15) \_\_\_\_\_(05)\_\_\_\_\_(10)\_\_\_\_\_(05)\_\_\_\_\_\_ (15)\_\_\_\_\_\_(10)\_\_\_\_\_\_ (05) \_\_\_\_\_\_(80)\_\_\_\_\_(10)\_\_\_\_\_(05)\_\_\_\_\_(10)\_\_\_\_\_(15) \_\_\_\_\_(10)\_\_\_\_\_(15)\_\_\_\_\_(25)\_\_\_\_\_(30)\_\_\_\_\_(20)\_\_\_\_\_(10)\_\_\_\_\_(15)\_\_\_\_\_(20) \_\_\_\_\_\_(185)  \_\_\_\_\_\_(485) |

**Note to administrators:**

Make certain that contestants are given a flash drive. The flash drive will serve two purposes:

* Students will need files distributed to them that must be integrated into the application. The files must be copied from the flash drive
* The student must turn in the application on the flash drive in order to be graded

The files that must be included on the flash drive are: imgNationalGallery.jpg, imgTreasury.jpg, imgWhiteHouse.jpg, exit.ico, folder.ico, googsearch.ico, music.ico, myPics.ico and photography.ico.

**Notes to Graders:**

You should run the application from the contestant’s flash drive to verify the correct execution. USE FIGURES 1-8 IN THE TEST WHEN GRADING THE APPLICATION IN ORDER TO VIEW THE EXECUTION. Below is the directive given to the student informing them what to turn in.

**What to turn in:**

* Copy your solution/project with executable loaded onto the flash drive provided. **Your project must be executable from the flash drive.** If your solution/project cannot be opened and executed from the flash drive, your score will be zero. The project source code must be readable in the project in order to grade the code.

SAMPLE CODING FOR VERIFICATION IS ON THE NEXT PAGE. CODING MAY NOT BE IDENTICAL TO SAMPLE.

'Program: Hobby Hutch

'Programmer ID: <contestant ID>

'Description: The objective of this program is to create an application to enable a user to

' showcase his/her hobbies

Option Strict On

Public Class frmMain

#Region "Main menu processing \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"

 ' Define variables

 Dim picPath As String = "..\..\images\"

 Private Sub frmMain\_Load(ByVal sender As System.Object, ByVal e As System.EventArgs) \_

 Handles MyBase.Load

 'Set object properties for the Load event

 lstPics.Visible = False

 lblClickImage.Visible = False

 picImageSelected.Visible = False

 mnuMain.Visible = True

 mnuPhotography.Visible = False

 End Sub

 Private Sub mnuMainPhotos\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) \_

 Handles mnuMainPhotos.Click

 ' Process menu object properties

 mnuPhotography.Visible = True

 mnuMain.Visible = False

 Call lstImagesLoad()

 End Sub

 Private Sub MusicToolStripMenuItem\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles mnuMainMusic.Click, mnuPhotoOnLine.Click

 'Called by multiple routines when routine is not written

 MessageBox.Show \_

 ("Under Construction", "The Informer", MessageBoxButtons.OK, MessageBoxIcon.Information)

 End Sub

 Private Sub mnuMainFileExit\_Click(ByVal sender As System.Object, ByVal e As System.EventArgs) \_

 Handles mnuMainFileExit.Click

 ' Close the form

 Me.Close()

 End Sub

#End Region

#Region "My Photos processing \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*"

 Private Sub lstImagesLoad()

 ' Load all picture names into lstImages

 lstPics.Items.Add("<Select a Pic>")

 lstPics.Items.Add("NationalGallery")

 lstPics.Items.Add("Treasury")

 lstPics.Items.Add("WhiteHouse")

 End Sub

 Private Sub lstPics\_SelectedIndexChanged(ByVal sender As System.Object, ByVal e As System.EventArgs) \_

 Handles lstPics.SelectedIndexChanged

 ' Setup relative pathing

 Dim picPath As String = "..\..\images\" + "img" + lstPics.SelectedItem.ToString + ".jpg"

 ' Student may approach the problem of targeting the image folder as follows:

 'Dim picPath As String = \_

 ' Application.StartupPath.Substring(0, Application.StartupPath.Length - "/bin/debug".Length) + "\images\" \_

 ' + "img" + lstPics.SelectedItem.ToString + ".jpg"

 If lstPics.SelectedIndex = 0 Then

 ' Do not allow user to select the <select..." item

 MessageBox.Show("pick a pic", "The Informer", MessageBoxButtons.OK, MessageBoxIcon.Stop)

 Else

 picImageSelected.Image = Image.FromFile(picPath) 'render the iamage

 End If

 End Sub

 Private Sub mnuToMainMenu\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles mnuToMainMenu.Click

 lstPics.Visible = False

 lstPics.Items.Clear()

 ' Hide the image container, and associated objects. Clear content where necessary

 picImageSelected.Visible = False

 picImage0.Visible = False

 picImage1.Visible = False

 picImage2.Visible = False

 picImageSelected.Image = Nothing

 lblClickImage.Visible = False

 ' Set properties to menu objects

 mnuMain.Visible = True

 mnuPhotography.Visible = False

 End Sub

 Private Sub mnuPicDisplaySelected\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles mnuPicDisplaySelected.Click

 lstPics.Visible = True

 'Clear image from large picBox

 picImageSelected.Image = Nothing

 picImageSelected.Visible = True

 ' Hide small picBoxes

 picImage0.Visible = False

 picImage1.Visible = False

 picImage2.Visible = False

 End Sub

 ' Note: The below routine could have utilized loops and arrays for abstract processing. I felt that would not be appropriately leveled for a regional contest

 Private Sub mnuPicDisplayAll\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles mnuPicDisplayAll.Click

 ' Set the properties of the image container and associated objects

 lstPics.Visible = False

 picImageSelected.Image = Nothing

 picImageSelected.Visible = True

 lblClickImage.Visible = True

 picImage0.Visible = True

 picImage1.Visible = True

 picImage2.Visible = True

 ' Render the images

 picImage0.Image = Image.FromFile(picPath + "imgNationalGallery.jpg")

 picImage1.Image = Image.FromFile(picPath + "imgTreasury.jpg")

 picImage2.Image = Image.FromFile(picPath + "imgWhiteHouse.jpg")

 End Sub

 ' The next 3 sub's render the image in the larger picture box when rendered image is clicked

 Private Sub picImage0\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles picImage0.Click

 picImageSelected.Image = Image.FromFile(picPath + "imgNationalGallery.jpg")

 End Sub

 Private Sub picImage1\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles picImage1.Click

 picImageSelected.Image = Image.FromFile(picPath + "imgTreasury.jpg")

 End Sub

 Private Sub picImage2\_Click(sender As System.Object, e As System.EventArgs) \_

 Handles picImage2.Click

 picImageSelected.Image = Image.FromFile(picPath + "imgWhiteHouse.jpg")

 End Sub

#End Region

End Class