Assignment 1

 For your first Visual Basic exercise, you must first choose the Standard Exe Project. Then add Command Buttons and event procedures to display the "Hello World" message.

Make sure to use meaningful names for your new Command Buttons. Include remarks at the top of every procedure and in the General Declarations section of the module.

2. Write a new Visual Basic project that displays different greetings. Include at least three command buttons to display the greetings, Print the form, and Exit the project.

Include a label that holds your name at the bottom of the form and change the caption property of the form to something meaningful.

Follow good naming conventions for object names; include remarks at the top of every procedure and in the General Declarations section of the module.

Select a different font name and font size for the greeting label. You can also select a different color for the font. Select each font attribute from the font dialog box from the properties window.

3. Write a project that displays four sayings, such as "The early bird gets the worm" or " A penny saved is penny earned." However, when the saying displays on your form, long lines will wrap within label if the label is large enough.

Make a command button for each saying with a descriptive Caption for each, as well as command buttons to Print the form and to Exit the project.

Include label that holds your name at the bottom of the form. Also, make sure to change the Caption property of the form to something meaningful.

You may change the Font properties of the large label to the font and size of your choice. Make sure the label is large enough to display your longest saying and that the command buttons are large enough to hold their entire Captions.

Follow good naming conventions for object names; include remarks at the top of every procedure and in the General Declarations section of the module.

4. Write a project that display company contact information. Include command buttons and labels for contact person, department, and phone. When the user clicks on one of the

command buttons, display the contact information in the corresponding label. Include command buttons to Print the form and to Exit.

Include label that holds your name at the bottom of the form and change the caption property of the form to something meaningful. You may change the font properties of the labels to font and size of your choice.

Follow good naming conventions for object names; include remarks at the top of every procedure and in the General Declarations section of the module.

Assignment No. 2

1. Create a project that will switch a light bulb on and off, using the user interface stated below as a guide.

Form: Include a text box for the user to enter his/her name. Create two images, one on top of the other. Only one will be visible at a time. Use option buttons to select the color of the text in the label beneath the light bulb image.

Include keyboard access keys for the option buttons and the command buttons. Make the print button the default button and the Exit button. Create ToolTips for both light bulb images; make the ToolTips say "Click here to turn the light on or off."

Project Operation: The user will enter a name and click an option button for the color (not necessarily in that order). When the light bulb is clicked, display the other image and change the message below it. Concatenate the username to the end of message.

The two icon files are:

Microsoft Visual Studio\Common\Graphics\Icons\Misc\Lightoff.ico Microsoft Visual Studio\Common\Graphics\Icons\Misc\Lighton.ico

(You will need to find the location of the Graphics directory on your system to find the icons.)

Coding: In the click event for each Color option button, change the color of the message below the light bulb. In the click event for the Print command button, print the form.

2. Write a project that will display the flags of four different countries, depending on the setting of the Show or Hide option buttons. In addition, display the name of the country in large label under the flag image. The user can also choose to display or hide the form's title, country name, and the name of the programmer. Use check boxes for these display/hide choices.

Include keyboard access keys for all option buttons, check boxes, and command buttons. Make the Print button the Default button and the Exit button the Cancel button. Include ToolTips for the Print and Exit buttons.

You can choose the countries and flags. You will find more than 20 flag icons in

Microsoft Visual Studio\Common\Graphics\Icons\Flags.

Hints: When a project begins running, the focus goes to the control with the lowest Tab Index. One option button will appear selected. You must either display the first flag to match

the option button or make the focus being in a different control. You might consider being the focus on one of the command buttons.

Set the Visible property of a control to the Value property of the corresponding checkbox. That way when the check box is selected, the controls become visible.

Because all three selectable controls will be visible when the project begins, set the Value property of three check boxes to 1 - vbChecked at design time. Set the flag images to Visible = False so that they won't appear at startup. (If you plan to display one image at start up, its Visible property must be set to True.)

Rather than stack images as was done in the previous example, you might consider another method of setting up the four flag images. Try placing four small invisible flag icons near the bottom of the form. When the user selects a different country's flag, set the Picture property of the largest flag image to the Picture property of one of the small, invisible images.

Example: imgFlag.Picture = imgMexico.Picture

Make sure to set the Stretch property of the larger image control to true

Assignment 2.3

Write a project to display a weather report. The user can choose one of the option buttons and display an icon and a message. The Message should give the weather report in words and include the person's name (taken from the text box at the top of form). For example, if the user chooses the Sunny button, you might display "It looks like sunny weather today, John" (assuming that the user entered "John" in the text box).

Include keyboard access keys for the option buttons and command buttons. Make the Exit button the cancel button. Include ToolTips for the Print and Exit buttons. You might consider the method of hiding and displaying images. The four icons displayed are in the:

Microsoft Visual Studio\Common\Graphics\Icons\Elements folder and files are called Cloud.ico, Rain.ico, Snow.ico and Sun.ico.

Assignment 2.4

Write a project that will input the user name and display a message of the day in a label, along with the user's name. Include

command buttons (with keyboard access keys) for Display, Clear, Print, and Exit. Make the Display button the default button and the Clear button the cancel button. Include ToolTips where appropriate. Include a group of option buttons for users to select the font size of the message. Give them a choice of three different sizes.

Hint: Display the font dialog box from the properties window to determine the available sizes. Make sure your message label is large enough to display the longest message in the largest font size

Make your form display a changeable image. You can use the happy face icon files or any other images you have available in: (Microsoft Visual

Studio\Common\Graphics\Icons\Misc\Face01.ico,Face02.ico and Face03.ico).

You may choose to have only one message of the day, or you can have several that the user can select from option buttons. You might want to choose messages that go with the different face icons.

Include check boxes to change the font attributes of the message. Include Bold, Underline, Italic and Strikethrough. Make sure to include keyboard access keys.

Assignment 2.5

Write a project that allows the user to input information and then display the lines of output for mailing label.

Remember that fields to be input by the user require text boxes, whereas information to be displayed belongs in labels. Use text boxes for first name, last name, postal address, city, state, and Zip code; give meaningful names to the text boxes and set the initial Text properties to blank. Add appropriate labels to each text box to tell the user which data will be entered into each box and also provide ToolTips.

Use command buttons for Display Labels Info, Clear, Print Form, and Exit. Make the Display button default button and the Clear button the cancel button. Use three labels for displaying the information for

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Line 1, Line 2 and Line 3. A click event on the Display Label Info command button will display the following:

- Line 1 The first name and last name concatenated together.
- Line 2 The postal address.
- Line 3 The city, state, and Zip code concatenated together.

(Make sure to concatenate a comma and a space between the city and state,

Using ", " and two spaces between the state and Zip code.)

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Assignment 3

3.1

Lynette Rifle owns an image consulting shop. Her clients can select from the following services at the specified regular prices: Makeover \$125, Hair Styling \$60, Manicure \$35, and permanent Makeup \$200. She has distributed discount coupons that advertise discount of 10% and 20% off the regular price. Create a project that will allow the receptionist to select a discount rate of 10%, 20% or none and then select a service. Display the price for the individual service in a label and have another label to display the total due after each visit is entered. Include command buttons for Calculate, Clear, Print Form, and Exit.

3.2

Modify previous project/assignment to allow for sales to additional patrons. Include command buttons for Next Patron and Summary. When the receptionist clicks the Summary button, display the number of clients and the total dollar value for all services rendered in a summary message box.

3.3

Create a project to compute your checking account balance.

Form: Include option buttons to indicate the type of transaction - deposit, check, or service charge. A text box will allow the user to enter the amount of the transaction. Display the new balance in label. Calculate the balance by adding deposits and subtracting service charges and checks. Include command buttons for Calculate, Clear and Exit.

3.4

Add validation to checking balance project(previous project/assignment) by displaying a message box if the new balance would be a negative number. If there is not enough money to cover check, do not deduct the check amount. Instead display a message box with the message "Insufficient Funds" and deduct a service charge

of \$10 and add one more Summary command button that will display the total number of deposits, the total dollar amount of deposits, the number of checks and the dollar amount of checks. Do not include checks that were returned for insufficient funds, but do include the service charges. Use message box to display the Summary information.

3.5

Piecework workers are paid by the piece. Workers who produce a greater quantity of output are often paid at a higher rate.

Form: Use text boxes to obtain the person's name and the number of pieces completed. Include a Calculate command button to display the dollar amount entered. You will need summary button to display the total number of pieces, the total pay and average pay per person. Clear button should clear the name and the number of pieces for the current employee.

Include validation to check for missing data. If the user clicks on the Calculate button without first entering a name and number of pieces, display a message box. Also you need to make sure to not display a summary before any data are entered; you cannot calculate an average when no items have been calculated. you can check the number of employees in the Summary event procedure or disable the Summary command button until the first order has been calculated.

Pieces Completed Price paid per Piece For All Pieces 001 - 199 0.50 200 - 399 0.55 400 - 599 0.60 600 or more 0.65

3.6

Develop an Application for awarding Grades to the students as follows

Grade A total > 90

 $\begin{array}{ll} \text{Grade B} & \text{total} < 90 \text{ and total} > 70 \\ \text{Grade C} & \text{total} < 70 \text{ and} > 50 \\ \text{Grade D} & \text{total} < 50 \text{ and} > 40 \\ \end{array}$

Fail total < 40

Implement above project by using if...Else and Select case

3.7

Develop seven segments Display Application

Accept numbers from 0 to 9 from user in numbers as well as in text e.g. 1 or one & display corresponding segment.

Event-change event of a text box Control-Line