

INTRODUCTORY

206

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that it determines whether the hours worked are not in the acceptable range. Then make the appropriate modifications to the instructions within the selection structure. Save the solution and then start and test the application. Close the Code Editor window and then close the solution.

4. Professor Jones wants an application that calculates and displays a student's average score on two tests. Open the Jones Solution (Jones Solution.sln) file contained in the ClearlyVB2012\Chap09\Jones Solution folder. (The image in the picture box was downloaded from the Open Clip Art Library at <http://openclipart.org>.) Code the Calculate button's Click event procedure. The procedure should verify that each score is valid. A valid score is one that is greater than or equal to zero. The procedure should display an appropriate message in the lblMessage control when one or more scores are not valid; otherwise, it should calculate and display the average score. Format the average score using the "N1" format. Save the solution and then start and test the application. Close the Code Editor window and then close the solution.
5. Geriatric Medical Supplies pays each salesperson a 3% bonus on his or her annual sales. In addition, any salesperson who has been with the company for more than 10 years receives an additional bonus. The additional bonus is \$100 for each year the employee has been with the company. The company wants an application that calculates and displays a salesperson's total bonus.
 - a. List the output, processing (if any), and input items, and then create an appropriate algorithm. The algorithm should verify that the sales amount entered by the user is not less than 0. If it is less than 0, an appropriate error message should be displayed.
 - b. Create a Visual Basic Windows application. Use the following names for the solution and project, respectively: Geriatric Solution and Geriatric Project. Save the application in the ClearlyVB2012\Chap09 folder. Change the name of the form file on your disk to frmMain.vb. If necessary, change the form's name to frmMain.
 - c. Create a suitable interface. Include an Exit button. Code the Exit button's Click event procedure and the problem's algorithm. Save the solution. Desk-check the program using your own sample data.
 - d. Start and then test the application. Close the Code Editor window and then close the solution.
6. Small Loans Inc. wants an application that displays the maximum amount a customer can borrow. Use the following rules to determine the amount. Customers whose annual salary is at least \$35,000 can borrow up to 25% of their salary, but only if they have been employed at their current job for at least 5 years. If they have been employed fewer than 5 years, they can borrow only a maximum of 20% of their salary. Customers who earn less than \$35,000 per year can borrow up to 5% of their salary. Create a Visual Basic Windows application. Use the following names for the solution and project, respectively: Loans Solution and Loans Project. Save the application in the ClearlyVB2012\Chap09 folder. Change the name of the form file on your disk to frmMain.vb. If necessary, change the form's name to frmMain. Create a suitable interface. Use the image stored in the ClearlyVB2012\Chap09\Bank.png file. (The image was downloaded from the Open Clip Art Library at <http://openclipart.org>.) Code the application. Save the solution and then start and test the application. Close the Code Editor window and then close the solution.
7. Open the Total Due Solution (Total Due Solution.sln) file contained in the ClearlyVB2012\Chap09\Total Due Solution-Version 3 folder. Sam's company now gives a 15% discount to employees. Non-employees ordering more than 10 items receive an 8% discount. Modify the btnCalc_Click procedure. Save the solution and then start and test the application. Close the Code Editor window and then close the solution.