

Programming Logic - Beginning

152-101

Money Changer Program

20 points

General Program Requirements

Create a program to help new cashiers learn how to make change. Your program should allow the user to enter the total amount of change due back to the customer. Expect the user to enter this value in dollars and cents. The program should then determine the most effective number of quarters, dimes, nickels and pennies that should be used to give the customer change. We want to make sure our cashiers are at least as smart as the new vending machines, so your program should handle change up to five dollars but only using the coins listed previously.

Program Design

- Follow the design you created for this program in Unit 3.
- If necessary, update the design
- **Submit the design with your program**

Detailed Program Requirements

Provide a button to clear the form input and output fields.

Make the calculate button the form's Accept Button. Make the Clear button the form's Cancel button.

After calculating the number of coins needed, format the user's input (total change needed) as Currency with two decimal places, regardless of how the user entered the value.

Use the Internet (or any other source) to locate images of a quarter, dime, nickel and penny. Place these near the amount of each coin needed (outputs). Create a professional appearance for the form.

If the user enters an invalid amount for the total change due, display an appropriate error message.

Include a Welcome Screen for this project. You may use your Unit 3 Welcome screen, but customize the welcome screen for this program. Display the Welcome Screen for 5 seconds. Provide buttons to exit the program without launching the main form and another button to start the program immediately, without waiting for the timer.

Follow the class [programming standards](#), incorporating all highlighted standards.

Challenge Points - 1 point EACH

- Add a version number display in an appropriate place on the main form. You may only earn this challenge point once for Unit 4 assignments.
- Anchor the form buttons, the version number (if provided) and any other appropriate objects to the appropriate locations of the form so they move appropriately when the form is resized. You may only earn this challenge point once for Unit 4 assignments.