

COMP10062: Assignment 1

Part A: Calculating Change

Create a Class: YourNameAssignA

Create a program that will make change for 1 dollar. Prompt the user to enter an amount between 1 and 100. Your program will calculate and display the remaining change as a number of quarters, dimes, nickels, and pennies.

Example 1:

Enter the price of the purchase in cents (\$1 or less): 99

The change from \$1.00 is: \$0.01

Number of pennies is: 1

Example 2:

Enter the price of the purchase in cents (\$1 or less): 1

The change from \$1.00 is: \$0.99

Number of quarters is: 3

Number of dimes is: 2

Number of pennies is: 4

Example 3:

Enter the price of the purchase in cents (\$1 or less): 33

The change from \$1.00 is: \$0.67

Number of quarters is: 2

Number of dimes is: 1

Number of nickels is: 1

Number of pennies is: 2

Part B: A Change of Pace

Create Second Class: YourNameAssignB

Extend your change-making program to make change from 100 dollars. Display the change as the number of \$20 bills, \$10 bills, \$5 bills, toonies, loonies, quarters, dimes, nickels, and pennies.

Example 1:

Enter the price of the purchase: \$1.35

The change from \$100.00 is: \$98.65

Number of \$20 bills is: 4

Number of \$10 bills is: 1

Number of \$5 bills is: 1

Number of \$2 coins is: 1

Number of \$1 coins is: 1

Number of quarters is: 2

Number of dimes is: 1

Number of nickels is: 1

Example 2:

Enter the price of the purchase: \$10.99

The change from \$100.00 is: \$89.01

Number of \$20 bills is: 4

Number of \$5 bills is: 1

Number of \$2 coins is: 2

Number of pennies is: 1

Example 3:

Enter the price of the purchase: \$66.78

The change from \$100.00 is: \$33.22

Number of \$20 bills is: 1

Number of \$10 bills is: 1

Number of \$2 coins is: 1

Number of \$1 coins is: 1

Number of dimes is: 2

Number of pennies is: 2

Bonus Marks

Add the following functionality to get bonus marks:

1. Prompt user for the price of purchase. (\$10,\$15,\$23,\$97)
2. Prompt user for the dollar bill in multiples of 5. (\$10,\$20,\$15,\$25)
3. Display the change as the number of \$20 bills, \$10 bills, \$5 bills, toonies, loonies, quarters, dimes, nickels, and pennies.