ARM LAB #2

Soft Drink Machine. Write a program which simulates the operation of a soft drink machine. The machine will dispense, upon reception of the correct amount of change of 55 cents, a choice of Coke, Sprite, Dr. Pepper, Diet Coke, or Mellow Yellow. The program should accept only nickels, dimes, quarters, and one dollar bills, and return any excess amount of change. Also allow the customer (user) to switch his or her mind on purchasing a soft drink.

Currency belonging to the set of acceptable correct change includes nickels, dimes, quarters, and one dollar bills.

Like the actions of a real soft drink machine, this program will be interactive. Input to the program will be read from the keyboard and output will be displayed to the screen. Prompt the user with an initial message describing the choices of soft drinks (see example below).

P Penny
N Nickel
D Dime
Q Quarter
F Fifty-cent piece
B Dollar Bill
S Slug
R Return Change (no purchase)

C Coke
S Sprite
P Dr. Pepper
D Diet Coke
F Fifty-cent piece
M Mellow Yellow

Sample Processing

Welcome to Mr. Zippy's soft drink vending machine.
Cost of Coke, Sprite, Dr. Pepper, Diet Coke, and Mellow Yellow is 55 cents.

Enter coin or select return.
Q
Total is 25 cents.

Enter coin or select return.
Q
Total is 50 cents.

Enter coin or select return
N
Total is 55 cents.

Make selection or return: (C) Coke, (S) Sprite, (P) Dr. Pepper, (D) Diet Coke, or (M) Mellow Yellow
C
Selection is Coke

NOTE: Thanks to Dr. Bradley L. Vinz for this programming project.

You may use the C printf and scanf functions for this lab, and can compile the lab with gcc.
You must write at least 2 subroutines in your solution.