Labs 15 and 16 (Work in pairs)

You must create an algorithm (flowchart or written out) BEFORE coding this lab (revising later is OK). You will receive credit for lab 15 for the algorithm, and for lab 16 for the working program which must match your algorithm.

Create a program that simulates a vending machine – your program will ask the user to enter a price for an item first, then enter the amount of money deposited. Your program should print the change that is given to the user **to a text file**, as a number of quarters, dimes, nickels, and pennies. Format the file as in the example given. **Change should be given using the smallest number of coins possible (change higher than 1 dollar can be given in quarters).** If the user will receive no change, say "no change" instead of 0 quarters, 0 dimes, 0 nickels and 0 pennies. If the user enters less money than the price of the item then give an error message on the screen stating "not enough money inserted" and print nothing to the file. After each transaction, whether enough money or not, ask the user if they have another transaction (enter capital or lowercase Y or N), and repeat if so. Note: You can assume that the user will type the price as a decimal number without a dollar sign. **Rounding issues within one penny are OK.**

Sample inputs/outputs:

Enter price of item: $1.25

Enter amount of money inserted: $1.90

Change:
Quarters: 2
Dimes: 1
Nickels: 1
Pennies: 0

Do you have another entry?: Y

Enter price of item: $1.25

Enter amount of money inserted: $2.60

Change:
Quarters: 5
Dimes: 1
Nickels: 0
Pennies: 0

Do you have another entry?: y

Enter price of item: $2.00

Enter amount of money inserted: $2.00

No Change

Do you have another entry?: Y

Enter price of item: $1.25

Enter amount of money inserted: $1.00

Error: Not enough money inserted.

Do you have another entry?: N

<program closes>

File Contents:

Price: $ 1.25

Money inserted: $ 1.90

Change:
Quarters:	2
Dimes:	1
Nickels:	1
Pennies:	0

****

Price: $ 1.25

Money inserted: $ 2.60

Change:
Quarters:	5
Dimes:	1
Nickels:	0
Pennies:	0

****

Price: $ 2.00

Money inserted: $ 2.00

No Change
****