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Program #1 Algorithm

Step 1 - Welcome the user

1a. Give the user a brief explanation about what this code does

Step 2 - Give the user a list of possible items to purchase

2a. Create items A through Z

2b. Display “Here are the possible items that you can purchase.”

2c. Display “A, B, C, D, E, F, G, H, I, J, K, L, M, N, O, P, Q, R, S, T, U, V, W, X, Y, Z”

Step 3 - Let the user select item

3a. Display “Choose the item.”

3b. Get the user input

3c. If the user input is a single alphabet, move on to 3e

3d. If the user input is not a single alphabet, display “The data you provided is not in a correct format, please choose one item from the given list” then move back to 3b

3e. Display “You chose (user input). Is it correct?”

3f. Display “If the answer is yes, type yes. If the answer is no, type no.”

3g. Get the user input

3h. If the user input is “yes”, move on to step 4

3i. If the user input is “no”, move back to 3a

3j. If the user input is something else, display “Please type yes or no” and then move back to 3g

Step 4 - Let the user type price

4a. Display “Please type the price of the item that you chose.”

4b. Get the user input

4c. If the user input is not a number, display “The data you provided is not in a correct format. Please type number.” and move back to 4b

4d. If the user input is a number, display “Is (user input)$ correct?”

4e. Display “If the answer is yes, type yes. If the answer is no, type no.”

4f. Get the user input

4g. If the user input is “yes”, store the user input into “price” and move on to step 5

4h. If the user input is “no”, move back to 4a

4i. If the user input is something else, display “Please type yes or no.” and move back to 4f

Step 5 - Let the user type quantity

5a. Display “Please type the quantity of the item that you chose.”

5b. Get the user input

5c. If the user input is not a number, display “The data you provided is not in a correct format. Please type number.” and move back to 5b

5d. If the user input is a number, display “Is (user input) correct?”

5e. Display “If the answer is yes, type yes. If the answer is no, type no.”

5f. Get the user input

5g. If the user input is “yes”, store the user input into “quantity” and move on to step 6

5h. If the user input is “no”, move back to 4a

5i. If the user input is something else, display “Please type yes or no.” and move back to 5f

Step 6 - Calculate and display the running total

6a. Running Total = Grand Total + (price * quantity)

6b. Display “The running total : (Running Total)$”

Step 7 - Ask the user if the user really want to add this to the cart

7a. Display “Do you really want to add this to the cart?”

7b. Display “If the answer is yes, type yes. If the answer is no, type no.”

7c. Get the user input

7d. If the user input is “yes”, move on to step 8

7e. If the user input is “no”, move back to step 3

7f. If the user input is something else, display “Please type yes or no.” and move back to 7c

Step 8 - Calculate the grand total

8a. Grand Total = Running Total (Running Total becomes Grand Total)

Step 9 - Ask the user if the user would like to purchase another item

9a. Display “Would you like to purchase another item?”

9b. Display “If the answer is yes, type yes. If the answer is no, type no.”

9c. Get the user input

9d. If the user input is “yes”, move back to step 3

9e. If the user input is “no”, move on to step 10

9f. If the user input is something else, display “Please type yes or no.” and move back to 9c

Step 10 - Display the grand total

10a. Display “The grand total : (Grand Total)$”

10b. The program ends