Questions of 28/10/2024

Q (a) If the item is nonzero, multiply product by item and save the result in product. Otherwise, skip the multiplication. In either case, print the value of product.

File Name: Q1.c

Variable Initialization:

item :Takes input from the user for multiplication.

product: Initially set to 1 so that the multiplication logic works correctly.

bool s = true (boolean): Controls the while loop, allowing multiple inputs until the user decides to stop.

Logic:

1. initializing product to 1.
2. The while loop runs continuously until the user enters zero.
3. Inside the loop:
   - The user is prompted to enter an item.
   - If the entered item is not zero, it multiplies product by item.
   - If the entered item is zero, the loop is terminated.
4. Finally, the program displays the value of product.

Q (b) Store the absolute difference of x and y in y, where the absolute difference is (x - y) or (y - x), whichever is positive. Do not use the abs or fabs function in your solution.

File Name: Q2.c

Variable Initialization:

x : Takes input from the user.

y : Takes input from the user and is updated with the absolute difference.

Logic:

1. The user enters the values of x and y.
2. If x is greater than y, the program subtracts y from x and stores the result in y.
3. Otherwise, it subtracts x from y and stores the result in y.
4. Finally, the program displays the absolute difference.

Q (c) If x is 0, add 1 to zerocount. If x is negative, add x to minussum. If x is greater than 0, add x to plussum.

File Name: **Q3.c**

Variable Initialization:

x : Takes input from the user.

zerocount : Count of zero values, initialized to 0.

minussum : Sum of negative values, initialized to 0.

plussum : Sum of positive values, initialized to 0.

i : Loop counter.(in my case i=0;i<5;i++)

Logic:

1. **A loop runs 5 times to allow the user to enter 5 values of x.**
2. **In each loop iteration:**
    - **If x is zero, zerocount is incremented by 1.**
    - **If x is negative, its value is added to minussum.**
    - **If x is positive, its value is added to plussum.**
3. **The program displays the final counts and sums.**