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COMSC 140 Python

Program Documentation

Midterm Q1: Count Groups of Even Numbers in a List

1/ Link

<https://github.com/DVC-COMSC/midterm-1-question-1-enduringwriter/blob/main/main.py>

2/ Program Purpose  
This program counts the groups of consecutive even numbers in a list inputted by the user.

3/ Input/Output Description

Input: The program inputs 10 integers from the user.

Output: The program outputs the number of groups of consecutive even numbers.

4/ Explanation of All Variables  
number: A list that stores the integers inputted by the user.

count\_even\_numbers: A count to count the current group of consecutive even numbers.

evencnt: A counter to count the number of groups of consecutive even numbers.

5/ Flow Chart  
Start > declare variables and an empty list input integer > prompt the user for integer input > for each number in the list, check if it is even > if yes, count the group of even numbers; if no, check the counter and if it is more than 2 even numbers then increment the ‘evencnt’ > reset the counting even numbers > after the loop, check the counter as the condition doesn’t account for the last group of even numbers should there not be an odd number that executes the else statement > output the total count or groups of even numbers > end.

6/ Lesson Learned  
I learned to use loops with conditions to store, identify, manipulate, and count sequences of data using lists. Also learned to identify even and odd numbers using modulus, %.

7/ Errors

I didn’t account for the last group of even numbers as described in the flowchart. I added the final check after the loop to ensure it was counted.

Reset counter, ‘count\_even\_numbers’ was initially in the wrong location. Placed it correctly in the else statement.