starter code

```
import random

nums = [0] * 100

for i in range(100):
        nums[i] = random.randint(1,50)


print(nums)
```



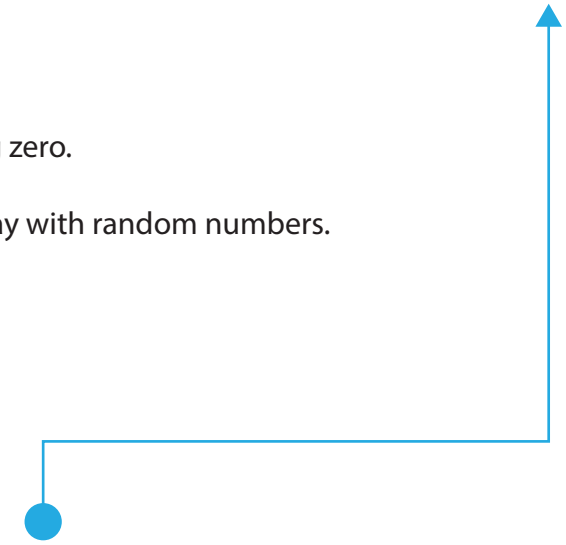
```
count ← 0
OUTPUT "Enter a number"
INPUT num
WHILE num < 0 OR num > 50 DO
   OUTPUT "Invalid! Range is 1 to 50 only!"
   INPUT num
END WHILE
FOR i ← 1 TO 100
   IF nums[i] = num
     THEN
        count ← count + 1
   END IF
END FOR
OUTPUT "There are " , count, " ", num," 's in the array!"
```

Run the code.

Can you see how it works?

An array is declared with 100 elements, each storing zero.

A count-controlled-loop is used to populate the array with random numbers.



Now, continue your program by translating this PSEUDOCODE to PROGRAM CODE

Corrective maintenance

Test your code and fix any bugs that appear.

Adaptive maintenance

Can you adapt your program so that if the count is greater than ten, a message "Unusual data spike!" is displayed.