Department of Computer Science and Engineering
SRM University–AP

Python: Code2Xplore – 60 Days Challenge

Daily Submission Template

Challenge Title: Smart Transport Load Balancing System

Course Code: CSE205
Concerned Teacher: Dr. Yasir Afaq

Student Details

Student Name: Vishnu Mattakoyya Register Number: AP24110011648
Section: ___J_____
Date of Submission: 17/02/2026
GitHub Repository Link (Mandatory): https://github.com/Vishnu164321/code_2xploer_day_5

Problem Understanding

I under stand that the problem is about the list which contains the integer values that is weights , Our goal is to make the separate lists for the different weights and count the number of valid weights.

Logic / Approach Used

In the beginning I consider the list named as weights and also some empty lists for the weights after separation , I shift the weights into the another lists based upon the information given in the question by using the " append".

1. Personalization Applied (Mandatory)

I applied the Rule B as the personalization ,it is correct match for my name and I removed the very_light list from the final plan by using the remove the elements from the list and count the affected elements by using aff_count .

Example:

- Name =Vishnu Mattakoyya
- Hence, I removed the elements from the very_light list .

2. Test Case Verification

Test Case	Expected Output	Your Output
Test Case 1	Final plan is : Very light: [] Normal load: [] Heavy load: [30, 55] Overload: [80, 70] invalid: [-2] Valid Weights: 6 Affected items due to PLI: 2	Final plan is : Very light: [] Normal load: [] Heavy load: [30, 55] Overload: [80, 70] invalid: [-2] Valid Weights: 6 Affected items due to PLI: 2

3. Python Program

Paste your complete Python code below:

```
weights=[4,80,70,-2,30,55,0]
very_light=[]
normal_load=[]
heavy_load=[]
overload=[]
invalid=[]
valid=0
aff_count=0
for weight in weights:
    if weight<0:
        invalid.append(weight)
    elif weight>=0 and weight<=5:
        very_light.append(weight)
        valid+=1
    elif weight>=6 and weight<=25:
        normal_load.append(weight)
        valid+=1
    elif weight>=26 and weight<=60:
        heavy_load.append(weight)
        valid+=1
    else:
        overload.append(weight)
```

```
        valid+=1

name="Vishnu Mattakoyya"
L=len(name.replace(" ", ""))
PLI=L%3
if PLI==0:
    for item in overload:
        invalid.append(item)
        aff_count+=1
    overload=[]
elif PLI==1:
        aff_count=len(very_light)
        very_light=[]
elif PLI==2:
    aff_count=len(very_light)+len(overload)
    very_light=[]
    overload=[]

print("Final plan is :")
print("Very light:",very_light)
print("Normal load:",normal_load)
print("Heavy load:",heavy_load)
print("Overload:",overload)
print("invalid:",invalid)

print("Valid Weights:",valid)
print("Affected items due to PLI:",aff_count)
```

4. Learning Outcome

What did you learn from this challenge?

I learned who to separate the list and also how to change the elements into one list to another list , and also learn how to use conditions inside the for loop .

Student Declaration

- I hereby declare that this submission is **my own original work**.
- I have **not used AI tools**, copied code from the internet, or shared code with others.
- I understand that **plagiarism will result in ZERO marks**.

Signed: __Vishnu
Date: ____17/02/2026

Faculty In charge:

--dryasir