

**Python: Code2Xplore – 60 Days Challenge**

**Daily Submission Template**

**Challenge Title: Smart List Filter Rebuilder Subject**

*Course Code: CSE205*

*Concerned Teacher: Dr. Yasir Afaq*

**Student Details**

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Section: \_\_J\_\_

Date of Submission: 12/02/2026

GitHub Repository Link (Mandatory): [https://github.com/Vishnu164321/code\\_2xploer-day\\_4](https://github.com/Vishnu164321/code_2xploer-day_4)

**1. Problem Understanding**

I understand that the problem is about the list which contains the numbers as well as characters, our goal is to separate the numbers and characters into two different lists by using the for loop and conditions as well.

**2. Logic / Approach Used**

In the beginning I consider the two empty lists, one is for numbers and another one is for strings, after that I consider the 'for' loop to access the elements in the list and also I used the if else condition to check whether the element is number or string, if the element is num keep it into the num list else move it into the string list.

**3. Personalization Applied (Mandatory)**

I applied the option B as the personalisation logic that is After the name is enter, I used the if else condition to check whether the length is even or odd.

After that remove the first element from both the list if the number is even or else remove the last from the both lists.

Example:

- Name =Vishnu
- Hence, I applied even or odd logic and update the list.

#### 4. Test Case Verification

Test Case	Expected Output	Your Output
Test Case 1	Number_list [10,25,40] String_list ['python','loop'] Total numbers:3 Total Strings:2	Number_list [10,25,40] String_list['python','loop'] Total numbers:3 Total strings:2

#### 5. Python Program

Paste your complete Python code below:

```
list=[10,"python","",20,"loop",40]
num_list=[]
str_list=[]
num_count=0
str_count=0
for i in list:
    if type(i)==int:
        num_list.append(i)
        num_count+=1
    elif type(i)==str and i!="":
        str_list.append(i)
        str_count+=1
print("Number list",num_list)
print("Total numbers:",num_count)
print("String list",str_list)
print("Total Strings:",str_count)

name="Vishnu"
if len(name)%2==0:
    del num_list[0]
    del str_list[0]
else:
    del num_list[-1]
    del str_list[-1]

print("Updated number list",num_list)
print("Updated string list",str_list)
```

## 6. Learning Outcome

What did you learn from this challenge?

I learned how to separate the list consists of both numbers and the characters into two different lists by using the for loop and if else conditions without using any in-built functions .

### 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:   12/02/2026  

*Faculty In charge:*  
*--dryasir*