



Programming languages

First class

LAB 2

Prepared by:

Ayoob Abdul-Munem

Ahmed Eskander Mezher



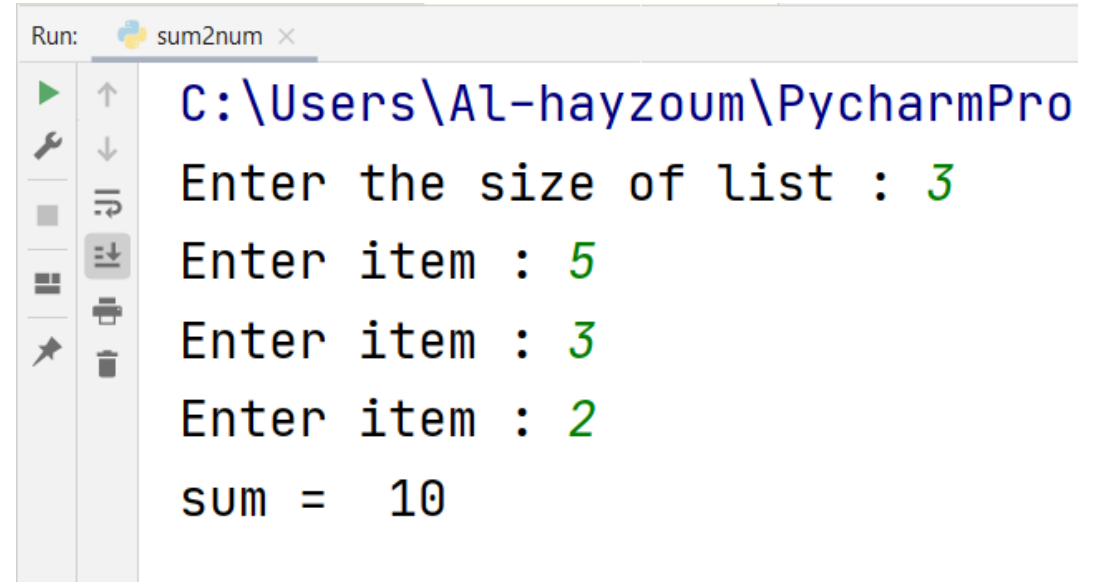
Lecture Outline: -

List with Function



Example 1: - Write a program to read the integer list from a user then print the summation of it. **By using functions.**

```
def read(ls = []):  
    size = int(input('Enter the size of  
list : '))  
    for i in range(size):  
        x = int(input('Enter item : '))  
        ls.append(x)  
    return ls  
def sum(ls):  
    s = 0  
    for i in ls:  
        s += i  
    return s  
ls=read()  
s=sum(ls)  
print('sum = ',s)
```

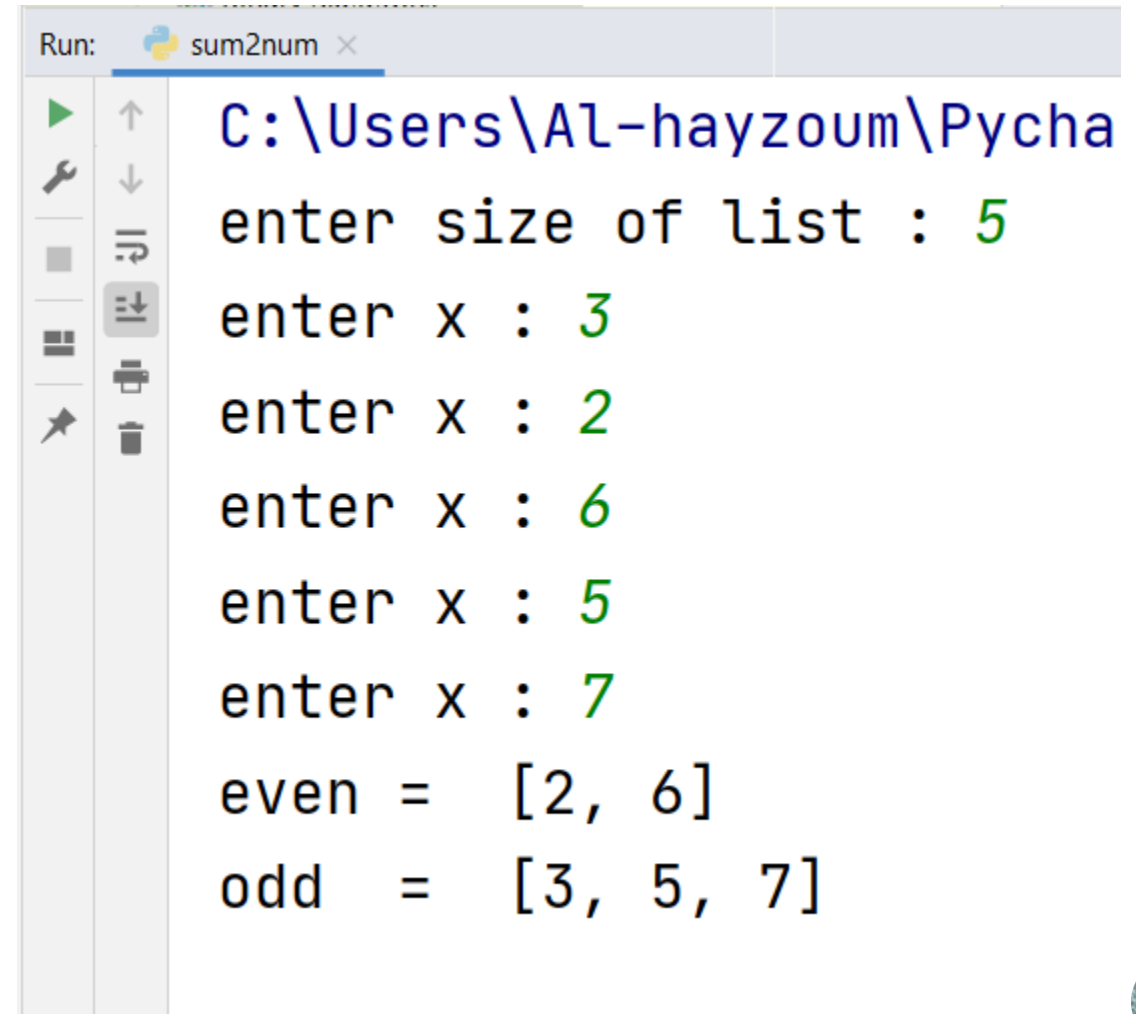


```
Run: sum2num x  
C:\Users\Al-hayzoum\PycharmPro  
Enter the size of list : 3  
Enter item : 5  
Enter item : 3  
Enter item : 2  
sum = 10
```



Example 2: - Write a program to read the integer list from a user then split it into even and odd lists. **By using functions.**

```
def read(ls=[]):
    size = eval(input('enter size of list : '))
    for i in range(0, size, 1):
        x = eval(input('enter x : '))
        ls.append(x)
    return ls
def split(ls):
    even = []
    odd = []
    k = len(ls)
    for i in range(0, k, 1):
        if ls[i] % 2 == 0:
            even.append(ls[i])
        else:
            odd.append(ls[i])
    return even, odd
ls=read()
even,odd=split(ls)
print('even = ',even)
print('odd = ',odd)
```

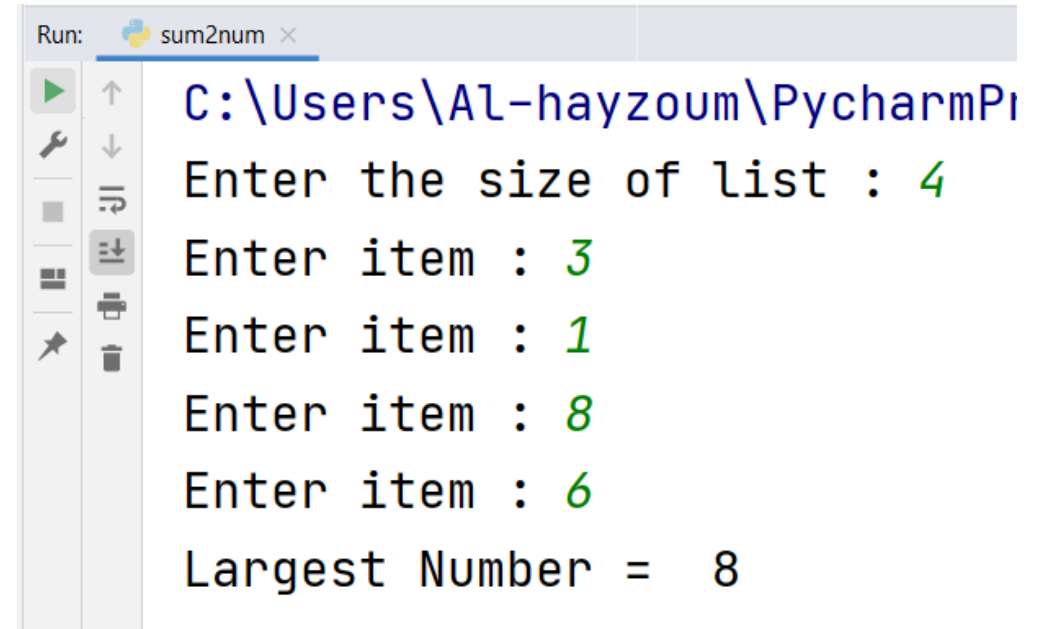


```
Run: sum2num x
C:\Users\Al-hayzoum\Pycha
enter size of list : 5
enter x : 3
enter x : 2
enter x : 6
enter x : 5
enter x : 7
even = [2, 6]
odd = [3, 5, 7]
```



Example 3: - Write a python program to get the largest number from a list. by using functions.

```
def read(ls = []):  
    size = int(input('Enter the size of list : '))  
    for i in range(0,size,1):  
        x = int(input('Enter item : '))  
        ls.append(x)  
    return ls  
def max(ls):  
    Max = ls[0]  
    for i in range(1, len(ls), 1):  
        if ls[i] > Max:  
            Max = ls[i]  
    return Max  
ls=read()  
M=max(ls)  
print ('Largest Number = ',M)
```



```
Run: sum2num x  
C:\Users\Al-hayzoum\PycharmPi  
Enter the size of list : 4  
Enter item : 3  
Enter item : 1  
Enter item : 8  
Enter item : 6  
Largest Number = 8
```



Worksheet

- 1- Write a python program to multiplies all the items of the list. By using functions.
- 2- Write a python program to get the smallest number from a list. By using functions.
- 3- Write a python program to delete all even numbers from the list. By using functions.
- 4- Write a python program to find the square of each item in the list. By using functions.



Thank you

