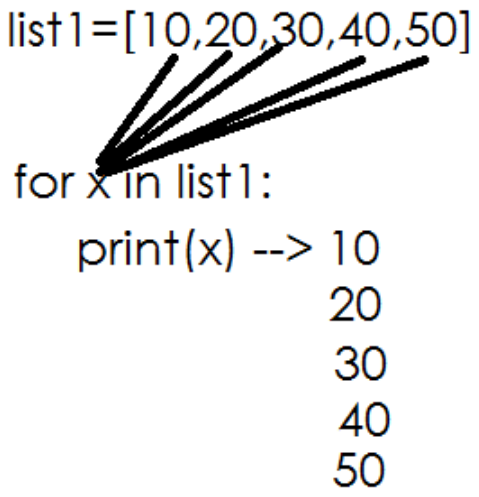
Reading elements/items from list using for loop without using index

for loop is used to iterate or read elements/items from iterables/collection.

Syntax:
for variable-name in collection/iterable:
    statement-1
    statement-2

for loop each time read one value from collection and execute statement-1,statement-2. This repeating is done until all the elements/items read from collection.

for loop read elements/items in sequential order.



Example:
numbersList=[2,7,9,4,6,3,11,16,17,23,53,98,35,67,22,15]
#find how many values/items exists within list
c=0
for n in numbersList:
    c=c+1

print("count of values",c)

 # print values which are divisible with 7
for value in numbersList:

```
    if value%7==0:
        print(value)
```

 # count even and odd numbers exists within list

```
ec=0
oc=0
for num in numbersList:
    if num%2==0:
        ec+=1
    else:
        oc+=1

print("Even numbers count ",ec)
print("Odd numbers count ",oc)
```

Output:

```
count of values 16
7
98
35
Even numbers count  6
Odd numbers count  10
```

append(ele/item) : this method add element/item at the end of list. append is mutable method.

```
>>> list1=[]
>>> print(list1)
[]
>>> list1.append(10)
>>> print(list1)
[10]
list1.append(20)
print(list1)
[10, 20]
>>> list1.append(30)
>>> print(list1)
[10, 20, 30]
>>> list1.append(40)
```

```
>>> print(list1)
[10, 20, 30, 40]
>>> list1.append(50,60)
Traceback (most recent call last):
  File "<pyshell#11>", line 1, in <module>
    list1.append(50,60)
TypeError: list.append() takes exactly one argument (2 given)
```

Example:

```
# write a program to input n values inside list

list1=[]
n=int(input("enter how many values"))

for i in range(n):
    value=int(input("enter any value"))
    list1.append(value)


print(list1)
```

Output:

```
======= RESTART: F:/python6pmaug/test91.py ======
enter how many values3
enter any value10
enter any value20
enter any value30
[10, 20, 30]
```

Example:

```
# write a program to read scores of n players and display


scores=[]
n=int(input("enter scores of how many players?"))
for i in range(n):
    score=int(input("Enter Score"))
```

```
    scores.append(score)

for i in range(n): # 0 1 2 3 4
    print("Player",(i+1),scores[i])
```

Output:

```
enter scores of how many players?3
Enter Score60
Enter Score70
Enter Score40
Player 1 60
Player 2 70
Player 3 40
```

Example:

```
# write a program to read scores of n players and display

scores=[]
n=int(input("enter scores of how many players?"))
for i in range(n):
    score=int(input("Enter Score"))
    scores.append(score)

n=1
for s in scores:
    print("Player",n,"--->",s)
    n+=1
```

Output:

```
enter scores of how many players?3
Enter Score70
Enter Score80
Enter Score90
Player 1 ---> 70
Player 2 ---> 80
Player 3 ---> 90
```

Example:

```
# write a program to read name, n subjects marks
```

```
# find total,avg,result

name=input("enter name")
n=int(input("How many subjects?"))
marks=[]
for i in range(n):
    m=int(input("enter marks"))
    marks.append(m)

total=0
for m in marks:
    total=total+m

avg=total/n
print("Name ",name)
print("Marks ",marks)
print("Total ",total)
print("Avg ",avg)

result="pass"
for m in marks: # [50,30,90]
    if m<40:
        result="fail"
        break

print("Result ",result)
```

Output:

```
enter namenaresh
How many subjects?2
enter marks90
enter marks30
Name  naresh
Marks  [90, 30]
Total  120
Avg  60.0
Result  fail
```