

```

else:
    pn.append(i)
print(loc, ec, pn)

```

O/P  $\Rightarrow$  [1, 3, 5, 7, 9, 11, 13, 15, 17, 19] [2, 4, 6, 8, 10, 12, 14, 16, 18, 20]  
 $\Rightarrow$  [1, 2, 3, 5, 7, 11, 13, 17, 19]  $\Rightarrow$  PN  $\Rightarrow$  prime Number.

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Slicing:-

Var [start position : stop position : step size]

default start position is 0

stop position is end.

step size is 1

example:- if

$l_1 = ['b', 101, 'Info', True, 125.9, 32, 'Bengaluru']$

# print elements from b to i

$l_1[0:5]$  same as range if you give  $s$  always  $(n-1) - 1$

O/P  $\Rightarrow$  ['b', 101, 'Info', True, 125.9]

# print odd position

$l_1[1::2]$  # Just provide skip counts from 1 after the  $l_1$

O/P = [101, True, 32]

print last 3 elements:

use either one method we have 3 options.

$l_1[4::]$  //  $l_1[4::-1]$  //  $l_1[-3::]$



probably use this method because for larger sum we can't count the positions. To go for this method.

Q) print elements whose position is divisible by 3:-

$l_1 = [3, 5, 7, 9, 11, 13, 15, 17, 19]$

$l_2 = [b, 10, 'info', True, 14, 45, 47]$  bengaluru is at index 4th

Q) To find list i need to print 45 at  $[4, 45, 47]$  the

$l_2[4][1] \Rightarrow # 4^{\text{th}} \text{ position inside of list 1st}$

$o/p \Rightarrow 45$

Q)  $l_2$  In this there are 3 nested loops, so extract 2 and position of 3 in  $l_2$

$l_2[4][0][0][2]$

Program:-

$l_1 = ['python', 'mysql', 'power BI', 'ML & DL']$

for i in  $l_1$ :  
 i sends first position then next.

print(i) # after reading directly print it.

for i in enumerate(i):  
 provides both position & value.

print(f"pos = {i[0]}, val = {i[1]}")

print()

Output:-

python

pos=0, val=p

pos=1, val=y

pos=2, val=m

pos=3, val=l

pos=4, val=o

pos=5, val=n

The output will be continue until it prints

2.  $list_2 = [7, 3, 8, 1, 4, 2, 9]$

# print maximum number without using max function

Max(list2)

$o/p = 9$

3.  $list_2 = [3, 8, 1, 4, 2, 9]$

maxnum =  $list_2[0]$   
for i in  $list_2$ :  
 if i is  $list_2$

if i > maxnum: if i value is greater than maxnum, then  
 maxnum = i  
 if i is equal to maxnum,

print(maxnum) to avoid infinite loop we print statement.

$o/p \Rightarrow 9$

Q) To lowest to highest always is sort.

$list_2.sort()$

$list_2$  # for ascending order

$o/p = 1, 2, 3, 4, 8, 9$

Q) To print in descending order.

$list_2.sort(reverse=True)$

$list_2$

$o/p \Rightarrow [9, 8, 4, 3, 2, 1]$

Q) If u reading the values from 1, then starts read from end of the list:-

$list_2 = [3, 8, 1, 4, 2, 9]$

$list_2[:: -1]$

$o/p \Rightarrow [9, 8, 4, 3, 2, 1]$

ML & DL

pos=0, val=n

pos=1, val=L

pos=2, val=s

f.

perform union and intersection of given 2 list

# Union : Same elements in Both list  
Intersection: elements in l<sub>1</sub> and l<sub>2</sub>, it could be same  
Ex:

l<sub>1</sub> = [1, 2, 3, 4, 5]

l<sub>2</sub> = [4, 5, 6, 7, 8]

color = [ ] # creating empty list

for i in l<sub>2</sub>:

if i in l<sub>1</sub>:

new.

l<sub>1</sub> = [1, 2, 3, 2, 3, 4, 5, 6, 7, 8, 9]

l<sub>2</sub> = [1, 1, 2, 2, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

color = [ ] # creating empty list

for i in l<sub>2</sub>:

if i not in new:

new.append(i)

l<sub>1</sub> = [1, 2, 3, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

l<sub>2</sub> = [1, 1, 2, 2, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

color = [ ] # creating empty list

for i in l<sub>2</sub>:

if i not in color:

color.append(i)

l<sub>1</sub> = [1, 2, 3, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

l<sub>2</sub> = [1, 1, 2, 2, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

color = [ ] # creating empty list

for i in l<sub>2</sub>:

if i not in color:

color.append(i)

l<sub>1</sub> = [1, 2, 3, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

l<sub>2</sub> = [1, 1, 2, 2, 2, 3, 4, 5, 6, 7, 7, 8, 8, 9]

color = [ ] # creating empty list

for i in l<sub>2</sub>:

if i not in color:

color.append(i)

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30/9/2015  
tuple :- remove all duplicates from list.  
To remove all duplicates from list if i not in new:  
new.append(i)

l<sub>1</sub> = [ ]

new = [ ]

for i in l<sub>1</sub>:

if i not in new:

new.append(i)

Tuple data structure

datatype

l<sub>1</sub>) or c )

To do any manipulation means we can convert into tuple.  
that type into list & modify & again convert into type.  
eg:- t<sub>1</sub> = (10, true, 'python')  
temp = list(t<sub>1</sub>)

temp

temp

temp

temp

temp

temp

To sort:-  
t<sub>1</sub> = tuple(l<sub>1</sub>)  
t<sub>1</sub> = tuple(l<sub>1</sub>.sorted(key=lambda x:x[1]))  
o/p = [(c<sub>1</sub>, 1), (c<sub>2</sub>, 23), (c<sub>3</sub>, 21), (c<sub>4</sub>, 24)]

o/p:- [5, 15, 25, 50]  
print(l<sub>1</sub>)  
o/p:- [5, 15, 25, 50]