

```

import sys

def sort_list(l1):
    for i in range(len(l1)):
        for j in range(i+1, len(l1)):
            if l1[i]>l1[j]:
                l1[i], l1[j] = l1[j],
l1[i]
    return l1
l1=[1,2,3,60,20,4,5]
l2=[10,20,30,5,3]
l3=[10,20,300,5,6]
a=sort_list(l1)
print(a)
v=sort_list(l2)
print(v)
x=sort_list(l3)
print(x)

sys.exit(0)
l1=[1,2,3,60,20,4,5]
l2=[10,20,30,5,3]
l3=[10,20,300,5,6]
for i in range(len(l1)):
    for j in range(i+1, len(l1)):
        if l1[i]>l1[j]:
            l1[i],l1[j]=l1[j],l1[i]
for i in range(len(l2)):
    for j in range(i+1, len(l2)):

```

```

        if l2[i]>l2[j]:
            l2[i],l2[j]=l2[j],l2[i]
for i in range(len(l3)):
    for j in range(i+1,len(l3)):
        if l3[i]>l3[j]:
            l3[i],l3[j]=l3[j],l3[i]
print(l1)
print(l2)
print(l3)

```

```

import sys
sys.exit(0)
s='AAABCBCCCD'
#{A:3,B:2,C:4,D:1}
d={}
for i in s:
    if i in d.keys():
        d[i]=d[i]+1
    else:
        d[i]=1
print(d)

```

```

sys.exit(0)
l1=[1,2,3,4,1,2,3,5,4,5,5,5,5]
#ouput=[1,2,3,4,5]
l2=[]
for i in l1:    #A    A A A
    if i not in l2:

```

```
        l2.append(i)    #
print(l2)
```

```
s='AAABCCDDBBBEEFFGHHHHIIIJJ'
output='ABCDEFGHIJ'
l=[]
for i in s:    #A    A A A
    if i not in l:
        l.append(i)    #
output=''.join(l)
print(output)
```

```
sys.exit(0)
# home work--->
input1='One Two three four Five six'
output='One owT three ruof Five xis'
#imp---> from string---> number print,
char print, num+str---> sorted
```

```
s='B4A1D3456ZW'    # output='ABD' --->
only numbers from string
s1=s2=output=''
for ch in s:
    if ch.isalpha():
        s1=s1+ch
    else:
        s2=s2+ch
print(s2)
```

```
s='B4A1D3456ZW'    # output='ABD' --->
```

*only char from string*

```
s1=s2=output=''
```

```
for ch in s:  
    if ch.isalpha():  
        s1=s1+ch  
    else:  
        s2=s2+ch
```

```
print(s1)
```

```
s='B4A1D3456ZW'      # output='ABD134'
```

```
s1=s2=output=''
```

```
for ch in s:  
    if ch.isalpha():  
        s1=s1+ch  
    else:  
        s2=s2+ch
```

```
for i in sorted(s1):  
    output=output+i
```

```
for j in sorted(s2):  
    output=output+j
```

```
print(output)
```

```
sys.exit(0)
```

```
s1='PUNE'
```

```
s2='pune'
```

```
i,j=0,0
```

```
output=''      #PpUuNnEe      pPuUnNeE
```

*#or----> t or t---> t, t or f---> t, f or*

*f---> f , f or t--->t*

```
while i<len(s1) or j<len(s2):  
    if j<len(s2):  
        output = output + s2[j]  
        j=j+1  
    if i<len(s1):  
        output=output+s1[i]  
        i=i+1  
print(output)
```

```
while i<len(s1) or j<len(s2):  
    if i<len(s1):  
        output=output+s1[i]  
        i=i+1  
    if j<len(s2):  
        output = output + s2[j]  
        j=j+1  
print(output)
```

*# even possiotion and odd possiotion  
char/str*

```
s='pune mumbai'
```

```
i=1    # 0 to len(str)-1
```

```
while i<len(s):  
    print(s[i])    #s[1] s[3] s[5] s[7]  
    i=i+2          #i=2
```

```
sys.exit(0)
```

```
s='pune'
```

```
i=0    # 0 to len(str)-1
```

```
while i<len(s):
```

```
print(s[i])      #s[0] s[2] s[4] s[6]
i=i+2            #i=2
```

```
s='Pune'
```

```
print(s[::2])    #[start:end:step]---> even
possiotion
```

```
print(s[1::2])   #---> odd possiotion
```

```
sys.exit(0)
```

```
s='learning python at pune'
```

```
l=s.split()      #['learning', 'python',
'at', 'pune']
```

```
l1=[]
```

```
i=0
```

```
while i<len(l):
```

```
    l1.append(l[i][::-1]) #[ 'learning',
'python', 'at', 'pune']
```

```
    i=i+1
```

```
out=' '.join(l1)
```

```
print(out)
```

```
sys.exit(0)
```

```
s='learning python at pune'
```

```
out1='pune at python learning'
```

```
l=s.split()      #['learning', 'python',
'at', 'pune']
```

```
i=len(l)-1      #0,1,2,3 ---> l[0]--->
learning
```

```
l1=[]
```

```
while i>=0:
```

```
    l1.append(l[i])
    i=i-1
out=' '.join(l1)
print(out)    #['pune', 'at', 'python',
'learning']
```

```
#reversed of string---->
str1='Pune'
#3---> [::-1], reversed, while
#print(str1[::-1])
#print(''.join(reversed(str1)))
```

```
i=len(str1)-1 #0 to len-1
str2='' #concat---> str1[i]
```

```
while i>=0:    #3>=0 , 2>=0
    str2=str2+str1[i]
    i=i-1      #0-1---> -1
    print(str2)
```

```
print(str2)
```

```
import sys
sys.exit(0)
#merge charach of 2 strings
s1='Pune'
s2='Mumbai'
output=''
i,j=0,0
while i<len(s1) or j<len(s2):
```

```

    if i<len(s1):
        output=output+s1[i]
        i+=1
    if j<len(s2):
        output=output+s2[j]
        j+=1
print(output)
import sys
sys.exit(0)
#Print the even and odd position chars
#1
s='Pune Mumbai'
print(s[::2])
print(s[1::2])
#2
s='Pune Mumbai'
i=0
while i<len(s):
    print(s[i])
    i=i+2
i=1
while i<len(s):
    print(s[i])
    i=i+2

import sys
sys.exit(0)
#program to reverse internal context
input='pune mumbai banglore'
l=input.split()

```



```
l1=[]
i=0
while i<len(l):
    l1.append(l[i][::-1])
    i=i+1
output=' '.join(l1)
print(output)
```

```
import sys
sys.exit(0)
#to reverse the string
#1
str2='Pune Mumbai'
print(str2[::-1])
#2
str2='Pune Mumbai'
print(''.join(reversed(str2)))
```

```
#3
str2='Pune Mumbai'
str3=''
for i in str2:
    str3=i+str3
print(str3)
#4
str2='Pune Mumbai'
i=len(str2)-1
output=''
while i>=0:
    output=output+str2[i]
```

```
    i=i-1
print(output)
```

```
import sys
sys.exit(0)
#reversed the order of words
#1
str1='hello world good afternoon'
l1=str1.split()
l2=l1[::-1]
str2=' '.join(l2)
print(str2)
```

```
#2
str1='hello world good afternoon'
l=str1.split()
l1=[]
i=len(l)-1
while i>=0:
    l1.append(l[i])
    i=i-1
output=' '.join(l1)
print(output)
```

```
str1='eyr37euyu33uer3euyu83'
str_join = ''.join((ch if ch in
'0123456789' else ' ') for ch in str1)
l1 = [int(i) for i in str_join.split()]
print(l1)
```