

assignment by amar sir

Use the "Run" button to execute the code.

```
!pip install jovian --upgrade --quiet
```

```
import jovian
```

```
# Execute this to save new versions of the notebook  
jovian.commit(project="amar-assignment")
```

Exercise Question 1: Given a two list. Create a third list by picking an odd-index element from the first list and even index elements from the second.

```
One = [3, 6, 9, 12, 15, 18, 21]  
Two = [4, 8, 12, 16, 20, 24, 28]  
list3=[]  
for i in range(len(One)):  
    if i%2 != 0:  
        list3.append(One[i])  
for j in range(len(Two)):  
    if j%2 == 0 :  
        list3.append(Two[j])  
print(list3)
```

```
[6, 12, 18, 4, 12, 20, 28]
```

```
listOne = [3, 6, 9, 12, 15, 18, 21]  
listTwo = [4, 8, 12, 16, 20, 24, 28]  
a=listOne[1::2]  
#print(a)  
b=listTwo[0::2]  
#print(b)  
a.extend(b)  
print(a)
```

```
[6, 12, 18, 4, 12, 20, 28]
```

Given a number count the total number of digits in a number

```
c=0  
n=int(input('enter number'))  
while n>0:  
    n//=10
```

```
c+=1
print(c)
```

enter number56754

5

```
n=input('enter the number')
print(len(n))
```

enter the number5566]

5

Write a Python program to print the numbers of a specified list after removing even numbers from it

```
t = [4, 8, 1, 12, 16, 20, 24, 28, 9, 11, 13]
u=[]
i=0
for i in t:
    if i%2 != 0:
        u.append(i)
print(u)
```

[1, 9, 11, 13]

Write a Python program to generate and print a list of first and last 5 elements where the values are square of numbers between 1 and 30 (both included).

```
a=[]
for i in range (1,6):
    s=i**2
    a.append(s)
for j in range (26,31):
    h=j**2
    a.append(h)
print(a)
```

[1, 4, 9, 16, 25, 676, 729, 784, 841, 900]

```
a=[]
for i in range(1,31):
    s=i**2
    a.append(s)
temp=a
```

```

b=a[:5]
c=temp[-5:]
b.extend(c)
print(b)

```

[1, 4, 9, 16, 25, 676, 729, 784, 841, 900]

Write a python program to check whether two lists are circularly identical

```

a=[1,1,0,0]
b=[0,0,1,1]
e=0
while True:
    c=a[0]
    a.pop(0)
    a.append(c)
    #print(a)
    d=len(b)
    e+=1
    if a==b:
        print('two lists are identical')
        break

    if e==d:
        print('two lists are not identical')
        break

```

two lists are identical

Write a Python program to change the position of every n-th value with the (n+1)th in a list.

```

a=[0,1,2,3,4,5]
for i in range(0,len(a),2):
    a[i],a[i+1]=a[i+1],a[i]
print(a)

```

[1, 0, 3, 2, 5, 4]

Write a Python program to iterate over two lists simultaneously.

```

a=[1,2,3]
b=['a','b','c']
for i in range(len(a)):
    for j in range(len(b)):
        if i==j:
            print(a[i],b[j])

```

```
1 a
2 b
3 c
```

```
a=[1,2,3]
b=['a','b','c']
c=0
for i in a:
    print(i,b[c])
    c=c+1
```

```
1 a
2 b
3 c
```

Write a Python program to generate the combinations of n distinct objects taken from the elements of a given list. Original list: [1, 2, 3, 4, 5, 6, 7, 8, 9] Combinations of 2 distinct objects: [1, 2] [1, 3] [1, 4] [1, 5] [7, 8] [7, 9] [8, 9]

```
a=[1,2,3,4,5,6,7,8,9]
b=[]
c=[]
for i in a:
    #type([i])
    for j in a:
        if i!=j :
            b=[i]
            b.append(j)
            c.append(b)
print(c)
```

```
[[1, 2], [1, 3], [1, 4], [1, 5], [1, 6], [1, 7], [1, 8], [1, 9], [2, 1], [2, 3], [2, 4], [2, 5], [2, 6], [2, 7], [2, 8], [2, 9], [3, 1], [3, 2], [3, 4], [3, 5], [3, 6], [3, 7], [3, 8], [3, 9], [4, 1], [4, 2], [4, 3], [4, 5], [4, 6], [4, 7], [4, 8], [4, 9], [5, 1], [5, 2], [5, 3], [5, 4], [5, 6], [5, 7], [5, 8], [5, 9], [6, 1], [6, 2], [6, 3], [6, 4], [6, 5], [6, 7], [6, 8], [6, 9], [7, 1], [7, 2], [7, 3], [7, 4], [7, 5], [7, 6], [7, 8], [7, 9], [8, 1], [8, 2], [8, 3], [8, 4], [8, 5], [8, 6], [8, 7], [8, 9], [9, 1], [9, 2], [9, 3], [9, 4], [9, 5], [9, 6], [9, 7], [9, 8]]
```

Write a Python program to remove duplicates from a list of lists.

```
a=[1,2,3,4,45,34,23,1,23,4,45]
b=set(a)
#print("list with duplicates",a)
print("list without duplicates",(list(b)))
```

list without duplicates [1, 2, 3, 4, 34, 45, 23]

```
A=[]
while True:
    b=input("Enter the data:")
    if b==" ":
        break
    A.append(b)
print(A)
print(type(A))
x=len(A)
print("Number of elements present in a list:",x)
y=1
if x>0:
    for i in range(1,x+1):
        y=y*i
    print("permutations of above list:",y)
```

Enter the data:2

Enter the data:3

Enter the data:4

Enter the data:

Enter the data:

['2', '3', '4', '']

<class 'list'>

Number of elements present in a list: 4

permutations of above list: 24

```
def get_permutation(string, i=0):

    if i == len(string):
        print("".join(string))

    for j in range(i, len(string)):

        words = [c for c in string]

        # swap
        words[i], words[j] = words[j], words[i]

        get_permutation(words, i + 1)

print(get_permutation('yup'))
```

yup

ypu

uyy

upy

puy
pyu
None

```
'''Write a Python program to remove duplicates from a list of  
lists.  
Sample list : [[10, 20], [40], [30, 56, 25], [10, 20], [33],  
[40]]  
New List : [[10, 20], [30, 56, 25], [33], [40]]'''  
a= [[10, 20], [40], [30, 56, 25], [10, 20], [33],[40]]  
b=[]  
for i in a:  
    if i not in b:  
        b.append(i)  
print("list without duplicates",b)
```

list without duplicates [[10, 20], [40], [30, 56, 25], [33]]