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 uyp 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]]