```
#1 Write a Python program to sort a list of tuples using Lambda.


a= ['a','b','c']
b = [1,2,3]

c = list(zip(a,b))

xs = lambda x: sorted(x)
xs(c)
```

```
     [('a', 1), ('b', 2), ('c', 3)]
```

```
#2 Write a Python program to sort a list of dictionaries using Lambda

a= ['a','b','c']
b = [1,2,3]

c = dict(zip(a,b))

sorted_keys_list = lambda x: sorted(x.keys())
sorted_values_list = lambda x: sorted(x.values())

print(sorted_keys_list(c),',',sorted_values_list(c))
```

```
     ['a', 'b', 'c'] , [1, 2, 3]
```

```
#3 Write a Python program to find square and cube every number in a given list of integers

a = [1,2,3,4]

b = list(map(lambda x: (f"Square of {x} is:",x**2,f"Cube of {x} is:",x**3),a))

b
```

```
     [('Square of 1 is:', 1, 'Cube of 1 is:', 1),
      ('Square of 2 is:', 4, 'Cube of 2 is:', 8),
      ('Square of 3 is:', 9, 'Cube of 3 is:', 27),
      ('Square of 4 is:', 16, 'Cube of 4 is:', 64)]
```

```
#4 Write a Python program to find if a given string starts with a given character using La

k = 'abcs'

b = lambda k: k if k[0] == 'a' else "Doesn't starts with letter a"
b(k)
```

```
     'abcs'
```

```
#5 Write a Python program to check whether a given string is number or not using Lambda

s = '123a'
```

```
z = lambda s: 'String is number' if type(eval(s)) == int else 'Error'
z(s)
```

```
  File "<string>", line 1
    123a
       ^
SyntaxError: unexpected EOF while parsing
```

SEARCH STACK OVERFLOW

```
#5 Write a Python program to check whether a given string is number or not using Lambda

s = '123'

z = lambda x: 'String is number' if x.isnumeric() == True else 'Not a Number'
z(s)
```

```
'String is number'
```

```
s = '1f23'

z = lambda x: 'String is number' if x.isnumeric() == True else 'Not a Number'
z(s)
```

```
'Not a Number'
```

```
#6 Write a Python program to create Fibonacci series using Lambda

def fibb(n):
  n1 = 0
  n2 =1
  sum = n1+n2
  print(n1)
  print(n2)
  for i in range(1,n-2):
    n1 = n2
    n2 = sum
    sum = n1 + n2
    print(sum)

n = 10
d = lambda x: fibb(n)
d(n)
```

```
0
1
2
3
5
8
13
```

```
21
34
```

```
# 7 Write a Python program to find the intersection of two given arrays using Lambda
a = set([1,2,3])
b = set([2,3,4])

k = lambda x,y: x.intersection(y)

j = list(k(a,b))
j
```

```
[2, 3]
```

```
#8 Write a Python program to rearrange positive and negative numbers in a given array usin

a = [12, 11, -13, -5, 6, -7, 5, -3, -6]

b = lambda x: sorted(a)

b(a)
```

```
[-13, -7, -6, -5, -3, 5, 6, 11, 12]
```

```
# 9 Write a Python program to count the even, odd numbers in a given array of integers usi

a = [12, 11, -13, -5, 6, -7, 5, -3, -6]

k = list(filter(lambda x: x%2==0,a))
l = list(filter(lambda x: x%2!=0,a))

print('Count of even numbers are',len(k))
print('Count of odd numbers are',len(l))
```

```
Count of even numbers are 3
Count of odd numbers are 6
```

```
# 10 Write a Python program to add two given lists using map and lambda

a = [1,2,3]
b = [4,5,6]

c = list(map(lambda x,y: x+y,a,b))
c
```

```
[5, 7, 9]
```

```
# 11 Write a Python program to find numbers divisible by nineteen or thirteen from a list

o = [57,5,29,39,13]

n = list(filter(lambda x: x%13==0 or x%19==0,o))
```

```
n
```

```
[57, 39, 13]
```

```
# 12 Write a Python program to find palindromes in a given list of strings using Lambda
string_list = ['mom','tom','bob','mon']

fil = list(filter(lambda x: x == x[::-1],string_list))
fil
```

```
['mom', 'bob']
```

```
# 13 Write a Python program to find all anagrams of a string in a given list of strings us

texts = ["bcda", "abce", "cbda", "cbea", "adcb"]
str = "abcd"

result = list(filter(lambda x: sorted(str) == sorted(x), texts))

print(result)
```

```
['bcda', 'cbda', 'adcb']
```

```
# 14 Write a Python program that multiplies each number of a given list with a given numbe

l = [2,3,4]

k = list(map(lambda x,y=10 : x*y,l))
k
```

```
[20, 30, 40]
```

```
# 15 Write a Python program to calculate the sum of the positive and negative numbers of a

l = [2,3,4,5]

sum(list(filter(lambda x: x%2 == 0, l))) + sum(list(filter(lambda x: x%2 != 0, l)))
```

```
14
```

```
# 16 Write a Python program to find the list with maximum and minimum length using lambda

a = [[1,2,3,4],[1,2,3],[1,2,3,4,5,6]]

print(f'Max lenght list {list(filter(lambda x:len(x)==max(list(map(lambda x:len(x),a))),a)
```

```
Max lenght list [1, 2, 3, 4, 5, 6] has length 6
```

```
#17 Write a Python program to check whether a specified list is sorted or not using lambda

a·=·[6,·2,·4]
```

```
b = [1,2,3]

res = lambda x: 'Sorted' if x==sorted(x) else 'Not Sorted'
print(f'specified list {a} is',res(a))
print(f'specified list {b} is',res(b))
```

```
specified list [6, 2, 4] is Not Sorted
specified list [1, 2, 3] is Sorted
```

```
# 18 Write a Python program to remove all elements from a given list present in another li

a = [6, 2, 4]
b = [1,2,3]

la = lambda a,b : [a.remove(i) for i in b if i in a]

la(a,b)
print(a)
```

```
[6, 4]
```

```
# 19 Write a Python program to convert string element to integer inside a given tuple usin

s = ('12','45','9')

t = tuple(map(lambda x: eval(x),s))

print(t[0])
type(t[0])
```

```
12
int
```

```
# 20 Write a Python program to count the occurrences of the items in a given list using la

a = ['1','1','2','7','3','2','2']

l = list(map(lambda x: a.count(x),a))
l
print(f'Numbers and their occurunces :{dict(zip(a,l))}')
```

```
Numbers and their occurunces :{'1': 2, '2': 3, '7': 1, '3': 1}
```

```
#21 Write a Python program to add three given lists using Python map and lambda
a = [6, 2, 4]
b = [1,2,3]
c = [9,5,3]

d = list(map(lambda x,y,z : x+y+z,a,b,c))
d
```

```
[16, 9, 10]
```

```
# 22 Write a Python program to listify the list of given strings individually using Python

og·=·['Red',·'Blue',·'Black',·'White',·'Pink']

dup·=·list(map(lambda·x:·list(x),og))
print(dup)
```

```
[['R', 'e', 'd'], ['B', 'l', 'u', 'e'], ['B', 'l', 'a', 'c', 'k'], ['W', 'h', 'i', 't
```

```
# 23 Write a Python program to square the elements of a list using map() function

y·=·[1,2,3,4]

sqr = list(map(lambda x: x**2,y))
sqr
```

```
[1, 4, 9, 16]
```

```
y = [1,2,3,4] #with only lambda

a = lambda x: [i**2 for i in y]
a(y)
```

```
[1, 4, 9, 16]
```

```
#24 Write a Python program to add two given lists and find the difference between lists. U

b·=·[1,2,3]
c·=·[9,5,3]

add = list(map(lambda x,y: x+y,b,c))
sub = list(map(lambda x,y: x-y,b,c))
print('Addition',add,',','Difference',sub)
```

```
Addition [10, 7, 6] , Difference [-8, -3, 0]
```

```
# 25 Write a Python program to convert a given list of integers and a tuple of integers in

a = [1,2,3]
b = (5,6,7)

l = list(map(lambda x: str(x),a))
m = list(map(lambda x: str(x),b))

print(m,l)
```

```
['5', '6', '7'] ['1', '2', '3']
```

```
# 26 Write a Python program to compute the sum of elements of an given array of integers,

a = [1,2,3]
```

```
print(f'sum of all elements is {list(set(map(lambda x: sum(a),a)))[0]}')
```

```
sum of all elements is 6
```

```
#27 Write a Python program to count the same pair in two given lists. use map() function

a·=·[1,2,3,2]
c·=·[9,5,3,2]

l = list(map(lambda x,y: x==y,a,c))

print(f'count of the same pair in two given lists are {l.count(True)}')
```

```
count of the same pair in two given lists are 2
```

```
# 28 Write a Python program to convert a given list of strings into list of lists using ma

og = ['Red', 'Blue', 'Black', 'White', 'Pink']

dup = list(map(lambda x: list(x),og))
print(dup)
```

```
[['R', 'e', 'd'], ['B', 'l', 'u', 'e'], ['B', 'l', 'a', 'c', 'k'], ['W', 'h', 'i', 't
```

```
# 29 Write a Python program to convert a given list of tuples to a list of strings using m

a = [('red', 'pink'), ('white', 'black'), ('orange', 'green')]

j = dict(a)
j.keys()
j.values()

p = list(map(lambda x,y: x + ' '+ y,j.keys(),j.values()))

p
```

```
['red pink', 'white black', 'orange green']
```

```
# 30 Python program to find the diff. between two lists using filter() function

a·=·[1,2,3,4,5,6,7,8]
c·=·[9,3,2]

l = list(filter(lambda x: x not in c,a)) + list(filter(lambda y: y not in a,c))
l
```

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

```
#31 Python program to remove stop words from string using filter() function

stop_words = ["i", "me", "my", "myself", "we", "our", "ours", "ourselves", "you", "your"
```

```
stop_words = [ i ,  me ,  my ,  myself ,  we ,  our ,  ours ,  ourselves ,  you ,  your ,
     "himself", "she", "her", "hers", "herself", "it", "its", "itself", "they", "them", "t
     "what", "which", "who", "whom", "this", "that", "these", "those", "am", "is", "are",
     "being", "have", "has", "had", "having", "do", "does", "did", "doing", "a", "an", "th
     "because", "as", "until", "while", "of", "at", "by", "for", "with", "about", "against
     "during", "before", "after", "above", "below", "to", "from", "up", "down", "in", "out
     "again", "further", "then", "once", "here", "there", "when", "where", "why", "how", "
     "more", "most", "other", "some", "such", "no", "nor", "not", "only", "own", "same", "
     "can", "will", "just", "don", "should", "now"]

s = '''Data science is an interdisciplinary field that uses scientific methods, processes,
to extract knowledge and insights from noisy, structured and unstructured data, and apply
knowledge and actionable insights from data across a broad range of application domains. '

l = list(filter(lambda x:x not in stop_words,s.split()))
l
print(' '.join(l))
```

```
     Data science interdisciplinary field uses scientific methods, processes, algorithms s
```

```
# 32 Python program to find common items in two arrays using lambda and filter() function

a·=·[1,2,3,4,5,6,7,8,9]
c = [9,3,1,56,89,0]

l = list(filter(lambda x: x in a,c))
l
```

```
     [9, 3, 1]
```

```
# 33 Python program to filter odd numbers from the list using filter() function

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

l = list(filter(lambda x: x%2!=0,a))

l
```

```
     [1, 3, 5, 7, 9]
```

```
# 34 Python program to filter even numbers from the list using filter() function

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

l = list(filter(lambda x: x%2==0,a))
l
```

```
     [2, 4, 6, 8]
```

```
# 35 Python program that filters non-vowels from the list using filter() function

vowels = 'aeiou'
```

```
a_z = 'abcdefghijklmnopqrstuvwxyz'

l = list(filter(lambda x: x not in vowels,a_z))
print(l)
```

```
['b', 'c', 'd', 'f', 'g', 'h', 'j', 'k', 'l', 'm', 'n', 'p', 'q', 'r', 's', 't', 'v',
```

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