#Que1. Create a list of given structure and get the Access list as provided below:

x=[100,200,300,400,500,[1,2,3,4,5,[10,20,30,40,50],6,7,8,9],600,700,800]

#access list: [1, 2, 3, 4]

print(x[5][0:4])

# print(f'access\_list:{access\_list}')

#access list: [600, 700]

print(x[6:08])

# print(f'access\_list:{access\_list}')

#access list: [100, 300, 500, 600, 800]

print(x[0:9:2])

# print(f'access\_list:{access\_list}')

#access list: [[800, 700, 600, [1, 2, 3, 4, 5, [10, 20, 30, 40, 50], 6, 7, 8, 9], 500, 400, 300, 200, 100]]

print(x[::-1])

# print(f'access\_list:{access\_list}')

#access list: [10]

print(x[5][5][0])

# print(f'access\_list:{access\_list}')

#access list: [ ]

del x[:]

print(x)

# print(f'access\_list:{x}')

#Que2. Create a list of thousand numbers using range and xrange and see the difference between each other.

l = l1(range(1, 1001))

print(l)

xl = l1(xrange(1, 1001))

print(xl)

#Que3. How Tuple is beneficial as compared to the list?

#Tuple is immutable on the other hand; the list is mutable, and tuples cannot be changed while the lists can be modified.

#Tuples are faster than list.

#Tuples are more memory efficient than the lists.

#Que4. Write a program in Python to iterate through the list of numbers in the range of 1,100 and print the number which is divisible by 3 and is a multiple of 2.

the number which is divisible by 3 and is a multiple of 2.

num = list(range(1, 1101))

for i in num:

if i%2 == 0 and i%3 == 0:

print(i)

#Que5. Write a program in Python to reverse a string and print only the vowel alphabet if it exists in the string with their index.

S = index

sr = s[::-1]

vowels = 'aeiouAEIOU'

for i in range(len(sr)):

if rev[i] in vowels:

print(f 'index: {i}, alphabet: {sr[i]}')

#Que6. Write a program in Python to iterate through the string “hello my name is abcde” and print the string which is having an even length.

sentence = “hello my name is abcde”

words = sentence.split()

string = []

for word in words:

if len(word)%2 == 0:

string.append(word)

print(" ".join(string))

#Que7. Write a program in python to print the pair of numbers whose sum is equal to the result number that is let's say 8.

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

result number = 8

n = len(x)

for i in range(n-1):

for j in range(i+1, n):

if x[i] +x[j] == result:

print(x[i],x[j])

#Que8. Write a program in Python to complete the following task:

even\_list = []

odd\_list = []

i = 0

while i < 5:

number = eval(input('Enter a number in the range of 1,50: '))

if number in range(1, 50):

if number % 2 == 0:

even\_list.append(num)

else:

odd\_list.append(num)

count += 1

else:

print("Please enter in range of 1 to 50")

sum1 = sum(even\_list)

sum2 = sum(odd\_list)

if sum1 > sum2:

print(f'{sum1} have maximum sum')

else:

print(f'{sum2} have maximum sum')

#Que9. Write a program to find out the occurrence of a specific character from an alphanumeric string.

s1 = "12abcbacbaba344ab"

s2 = set(s1) #s1 & s2= strings

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

for char in s2:

if char not in num:

cnt = s1.count(char)

print(f'{char} = {cnt}')

#Que10. Generate and print another tuple whose values are even numbers in the given tuple

t1 = (1,2,3,4,5,6,7,8,9,10)

t2 = list()

for num in tup:

if num % 2 == 0:

t2.append(i) # i = num

print(t2)