1. VALID EMAIL ADDRESS

Ans:

import re

def validate(email):

if re.match(r"[^@]+@[^@]+\.[^@]+", email):

return True

return False

email = "prajjith@gmail.com"

if email(email):

print("Valid email address")

else:

print("Invalid email address")

INPUT: prajjith@gmail.com

OUTPUT: Valid email address

2. Anagram

Ans:

def anagram(s1,s2):

if(sorted(s1)==sorted(s2)):

print("ANAGRAM")

else:

print("NOPE")

a="teacher"

b="hectare"

anagram(a,b)

INPUT: teacher,hectare

OUTPUT: ANAGRAM

3. REMOVE WHITESPACE FROM A GOVEN STRING

Ans:

a="he is a good boy"

p=a.replace(" ",'')

print(p)

INPUT: he is a good boy

OUTPUT: heisagoodboy

4.FREQUENCY OF CHARACTERS IN A GIVEN STRING

Ans:

str1 = "prajiith"

freq = {}

for i in str1:

if i in freq:

freq[i] += 1

else:

freq[i] = 1

print("frequency of characters "+ str(freq))

INPUT: prajiith

OUTPUT: frequency of characters {'p': 1, 'r': 1, 'a': 1, 'j': 1, 'i': 2, 't': 1, 'h': 1}

5.LENGTH OF THE LONGEST SUBSTRING USING REDUCE

Ans:

from functools import reduce

def longestLength(words):

longest\_word = reduce(lambda x, y: x if len(x) > len(y) else y, words)

print("The word with the longest length is:", longest\_word, " and length is ", len(longest\_word))

a = ["one", "two", "third", "four"]

longestLength(a)

INPUT: one,two,third,four

OUTPUT: third

6. LONGEST PALINDROM IN A SUBSTRING

Ans:

def find\_longest\_palindrome(s):

longest = ''

n = len(s)

c=0

for i in range(n):

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

word = s[i:j]

if word == word[::-1]:

if len(word)>len(longest):

longest = word

return longest

print(find\_longest\_palindrome('locoannamadam'))

INPUT: locoannamadam

OUTPUT: madam

7.REMOVE VOWELS

Ans:

a="he is a good boy"

vowel=('a','e','i','o','u')

for i in a.lower():

if i in vowel:

a=a.replace(i,"")

print(a)

INPUT: he is a good boy

OUTPUT:h s gd by

8.INTERSECTION OF TWO LISTS

Ans:

l1=[1,4,2,7,5]

l2=[4,6,2,8,9]

c=list(set(l1).intersection(l2))

print(c)

INPUT: 1 4 2 7 5

4 6 2 8 9

OUTPUT: [4,2]

9.INDEX OF A GIVEN SUBSTRING

Ans:

a="he is a good boy"

print(a.find("is"))

INPUT: he is a good boy

OUTPUT: 3

10.SECOND MOST FREQUENT CHARACTER

Ans:

str=input("Enter Your String:")

arr=[0]\*256

max=0

sec\_max=0

i=0

for i in range(len(str)):

if str[i]!=' ':

num=ord(str[i])

arr[num]+=1

for i in range(256):

if arr[i] > arr[max]:

sec\_max = max

max = i

elif arr[i]>arr[sec\_max] and arr[i]!=arr[max]:

sec\_max = i

print("The Second Most occurring character in a string is "+(chr)(sec\_max))

INPUT:prajiith

OUTPUT: The Second Most occurring character in a string is a

11.kth SAMLLEST ELEMENT

Ans:

a=[1,5,23,6,8]

n=len(a)

k=4

for i in range(0,n):

for j in range(0,n):

if a[i]<a[j]:

a[i],a[j]=a[j],a[i]

print(a[k-1])

INPUT: 1 5 23 6 8

OUTPUT: 8

12.COMMON ELEMENTS IN A LIST

Ans:

l1=[1,4,2,7,5]

l2=[4,6,2,8,9]

c=list(set(l1).intersection(l2))

print(c)

INPUT: 1 4 2 7 5

4 6 2 8 9

OUTPUT: [4,2]

13.VOWEL COUNT USING MAP FUNCTON

Ans:

str1 = "PRAJIITH"

c= map(str1.lower().count, "aeiou")

print("[A, E, I, O, U]")

print(list(c))

INPUT: PRAJIITH

OUTPUT: [A, E, I, O, U]

[1, 0, 2, 0, 0]

14.LARGEST SUBSEQUENT SUM

Ans:

a=[1,5,-2,-3,6,8,-18]

n=len(a)

for i in range(0,n):

for j in range(0,n):

if a[i]>a[j]:

a[i],a[j]=a[j],a[i]

p=[]

for i in range(0,n):

if a[i]>0:

p.append(a[i])

sum1=0

for i in p:

sum1+=i

print(sum1)

INPUT: 1,5,-2,-3,6,8,-18

OUTPUT: 20

15.CONCANTENATE TWO LISTS

Ans:

l1=[2,5,3,7,8]

l2=[1,4,6,2,8]

l3=l1+l2

print(l3)

INPUT: 2 5 3 7 8

1 4 6 2 8

OUTPUT: [2,5,3,7,8,1,4,6,2,8]

16.VALID PASSWORD

Ans:

import re

is\_valid\_password = lambda password: bool(re.match(r'^(?=.\*[a-z])(?=.\*[A-Z])(?=.\*\d)(?=.\*[@$!%\*?&])[A-Za-z\d@$!%\*?&]{8,}$', password))

password = "Passw0rd@"

print("Password is valid:", is\_valid\_password(password))

INPUT: Passw0rd@

OUTPUT: Password is Valid

17.STRING PALINDROME

Ans:

def ispalindrome(s):

return s==s[::-1]

S="malayalam"

ans=ispalindrome(S)

if ans:

print("palindrome")

else:

print("nope")

INPUT: Malayalam

OUTPUT: palindrome

18.SUM OF TWO NUMBERS USING RECURSION

Ans:

def add(x,y):

if(y==0):

return x

else:

return add(x,y-1)+1

p=add(3,8)

print(p)

INPUT: 3 8

OUTPUT: 11

19.LENGTH OF A GIVEN STRING

Ans:

a="prajiith"

p=len(a)

print(p)

INPUT: prajiith

OUTPUT: 8

20. LONGEST WORD IN A SENTENCE

Ans:

str = "he is a good boy"

word\_list = str.split()

longest\_word = max(word\_list, key = len)

pos = str.index(longest\_word)

print("Longest word: ",longest\_word)

print("Position of Longest word: ", pos)

INPUT: he is a good boy

OUTPUT: Longest word: good

Position of Longest word: 8