Files programs

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1. Write a Python program to check whether a file exists.

import os.path

open('abc.txt', 'w')

print(os.path.isfile('abcdefgh.txt'))

Note:

isfile():

This function returns eithe True/False

if given file is present in our directory, then,

it returns True.

otherwise False

2. Write a Python program to check

if a file path is a file or a directory.

import os

#path="c:/users/dell/appdata/local/programs/python/python311"

#path="names.txt"

path="names123456789.txt"

if os.path.isdir(path):

print("\nIt is a directory")

elif os.path.isfile(path):

print("\nIt is a Normal text file")

else:

print("It is a special file (socket, FIFO, device file)" )

3. Write a program to print

all three letter words in a given text file

fp = open('sample.txt','r')

x = fp.read().split()

for i in x:

if len(i)==3:

print(i)

using list comprehensions:

fp=open('sample.txt','r')

wordlist=fp.read().split()

print([word for word in wordlist if len(word)==3])

4. Write a program to print

all the words that start with 'fr' or 'tr'

fp = open('sample.txt','r')

x = fp.read().split()

for i in x:

if i[:2]=='fr' or i[:2]=='tr':

print(i)

5. Write a program Determine what percentage

of words start with a vowel.

fp=open('sample.txt','r')

wordlist=fp.read().split()

count = 0

for word in wordlist:

if word[0] in 'aeiou':

count=count+1

print(100\*count/len(wordlist))

6. Write a program to print all 7-letter words

that start with fr and end in me.

fp=open('sample.txt','r')

wordlist=fp.read().split()

for word in wordlist:

if len(word)==7 and word[:2]=='fr' and word[-2:]=='me':

print(word)

7.Write a program to print the first ten words

that start with q.

fp=open('sample.txt','r')

wordlist=fp.read().split()

i=1

for word in wordlist:

if word[0]=='t':

if i<=10:

print(word)

i=i+1

else:

break

8. Write a program Find the longest word that can be made using only the letters a, b, c, d, and e.

largest = 0

for word in wordlist:

for c in word:

if c not in 'abcde':

break

else:

if len(word)>largest:

largest=len(word)

largest\_word=word

print(largest\_word)

9. Python Program to Read the Contents of a File in Reverse Order

filename=input("Enter file name: ")

for line in reversed(list(open(filename))):

print(line.rstrip())

10. Python Program to Read a File and Capitalize the First Letter of Every Word in the File

fname = input("Enter file name: ")

with open(fname, 'r') as f:

for line in f:

l=line.title()

print(l)

11. wrtie a program to find the longest word in a text file

fp=open('names.txt', 'r')

words = fp.read().split()

max\_len = len(max(words, key=len))

x = [word for word in words if len(word) == max\_len]

print(x)

12. Write a program to count the No. of capital letters in a file.

With open(‘data.txt’) as fo:

count=0

text = fo.read()

for character in text:

if character.isupper():

count+=1

print(‘No. of capital letters =’,count)

13. Write a Python program to count the frequency of words in a file.

from collections import Counter

def word\_count(fname):

with open(fname) as f:

return Counter(f.read().split())

print("Number of words in the file :",word\_count("names.txt"))

14. write a program to find number of lines , words, characters in a file

method-1:

fp=open('hello.txt','r')

nl=0

nw=0

nc=0

x=fp.readlines()

for i in x:

nl=nl+1

word=i.split()

nw=nw+len(word)

for j in i:

if j!=' ' and j!='\n':

nc=nc+1

print('number of lines=',nl)

print('number of words=',nw)

print('number of characters=',nc)

method-2:

fp=open('hello.txt','r')

nl=0

nw=0

nc=0

x=fp.read()

nc=len(x)

nw=len(x.split())

nl=len(x.splitlines())

nc=nc-(nw+nl+1)

print('number of lines=',nl)

print('number of words=',nw)

print('number of characters=',nc)

15. Write a program to print palindroms in a given file:

fp=open('hello.txt','r')

l=[]

x=fp.readlines()

for i in x:

word=i.split()

for j in word:

if j==j[ : : -1]:

l.append(j)

print(l)

16. Write a program to print all palindroms with no. of times:

fp=open('hello.txt','r')

d={ }

x=fp.readlines()

for i in x:

word=i.split()

for j in word:

if j==j[::-1]:

print(d)

17. Write a Python program to get the size of a file.

import os

file\_size = os.path.getsize("abc.txt")

print("\nThe size of abc.txt is :",file\_size,"Bytes")

print()

18. Write a Python program to retrieve file properties.

import os.path

import time

print('File :', \_file\_)

print('Access time :', time.ctime(os.path.getatime(\_file\_)))

print('Modified time:', time.ctime(os.path.getmtime(\_file\_)))

print('Change time :', time.ctime(os.path.getctime(\_file\_)))

print('Size :', os.path.getsize(\_file\_))

19. #Python program to mail merger

# Names are in the file names.txt

# Body of the mail is in body.txt

# open names.txt for reading

with open("names.txt",'r',encoding = 'utf-8') as names\_file:

# open body.txt for reading

with open("body.txt",'r',encoding = 'utf-8') as body\_file:

# read entire content of the body

body = body\_file.read()

# iterate over names

for name in names\_file:

mail = "Hello "+name+body

# write the mails to individual files

with open(name.strip()+".txt",'w',encoding = 'utf-8') as mail\_file:

mail\_file.write(mail)

20. Write a program to write employee data into csv files

import csv

with open("emp.csv","w",newline='') as f:

w=csv.writer(f) # returns csv writer object

w.writerow(["ENO","ENAME","ESAL","EADDR"])

n=int(input("Enter Number of Employees:"))

for i in range(n):

eno=int(input("Enter Employee No:"))

ename=input("Enter Employee Name:")

esal=input("Enter Employee Salary:")

eaddr=input("Enter Employee Address:")

w.writerow([eno,ename,esal,eaddr])

print("Total Employees data written to csv file successfully")

21. write a program to read data from a csv files

import csv

f=open("emp.csv",'r')

r=csv.reader(f) #returns csv reader object

data=list(r)

#print(data)

for line in data:

for word in line:

print(word,"\t",end='')

print()

22. Write a program to copy the image from one file to another file

f1=open("c:/Users/Vishnu/Desktop/charith.jpg","rb")

f2=open("newpic.jpg","wb")

bytes=f1.read()

f2.write(bytes)

print("New Image is available with the name: ,newpic.jpg")

print(f1)

print(f2)

23. Write a program to read data from numbers.txt file

# 1) Splits the text file into individual characters

# to identify the commas and parsing the individual

# tokens.

# create a list to store the inputted numbers only .

import string

numbers = list()

dataFile = open('sample.txt', 'r')

for eachLine in dataFile:

tmpStr = ''

for char in eachLine:

if char.isdigit():

tmpStr += char

elif char == ',' and tmpStr != '':

numbers.append(int(tmpStr))

tmpStr = ''

if tmpStr.isdigit():

numbers.append(int(tmpStr))

print(numbers)

dataFile.close()

24. write a program to read data from a file sample.txt,

digits stored in numbers list , alphabets stored in strings list

sample.txt is

1,

2,ram,

3,

4,sita,5,

6,7,8,laxman,10,11,12,13

solution is :

numbers = list()

strings= list()

dataFile = open('sample.txt', 'r')

for eachLine in dataFile:

substrs = eachLine.split(',',eachLine.count(','))

for strVar in substrs:

if strVar.isdigit():

numbers.append(int(strVar))

if strVar.isalpha():

strings.append(strVar)

print(numbers)

print(strings)

dataFile.close()

25. write a program to count No. of vowels in a given text file '

vowel=['a','e','i','o','u','A','E','I','O','U']

count = 0

fo = open('message.txt','r')

x = fo.read()

for i in x:

if i in vowel:

count = count + 1

fo.close()

print('No. of vowels = ',count)

26. write a prograrm to find No. of alphabets, No. of digits and symbols

na=nd=ns=0

fo = open('message.txt','r')

x = fo.read()

for i in x:

if i.isalpha():

na=na+1

elif i.isdigit():

nd=nd+1

else:

ns=ns+1

print('No. of alphabets = ',na)

print('No. of special symbols = ',ns)

print('No. of digits = ',nd)

fo.close()