**PYTHON ASSIGNMENT**

**MODULE-4**

**ASSIGNMENT-1**

**1)Write a Python program to read an entire text file.**

file = open('my\_file',mode='r')

all\_of\_it = file.read()

file.close()

**2) Write a Python program to read first n lines of a file**

def file\_read\_from\_head(fname, nlines):

from itertools import islice

with open(fname) as f:

for line in islice(f, nlines):

print(line)

file\_read\_from\_head('test.txt',2)

**3) Write a Python program to append text to a file and display the text.**

def file\_read(fname):

from itertools import islice

with open(fname, "w") as myfile:

myfile.write("Python Exercises\n")

myfile.write("Java Exercises")

txt = open(fname)

print(txt.read())

file\_read('abc.txt')

**4) Write a Python program to read last n lines of a file.**

import sys

import os

def file\_read(fname,lines):

bufsize = 8192

fsize = os.stat(fname).st\_size

iter = 0

with open(fname) as f:

if bufsize > fsize:

bufsize = fsize-1

data = []

while True:

iter +=1

f.seek(fsize-bufsize\*iter)

data.extend(f.readlines())

if len(data) >= lines or f.tell() == 0:

print(''.join(data[-lines:]))

break

file\_read('test.txt',2)

**5) Write a Python program to read a file line by line store it into a variable**.

def file\_read(fname):

with open(fname) as f:

#Content\_list is the list that contains the read lines.

content\_list = f.readlines()

print(content\_list)

file\_read(\'test.txt\')

**6) Write a Python program to read a file line by line and store it into a list.**

def file\_read(fname):

with open(fname) as f:

content\_list = f.readlines()

print(content\_list)

file\_read(\'test.txt\')

**7) Write a Python program to read a file line by line store it into an array.**

def file\_read(fname):

content\_array = []

with open(fname) as f:

for line in f:

content\_array.append(line)

print(content\_array)

file\_read('test.txt')

**8. Write a Python program to count the number of lines in a text file**.

file = open("kushal.txt","r")

Counter = 0

Content = file.read()

CoList = Content.split("\n")

for i in CoList:

if i:

Counter += 1

print("This is the number of lines in the file")

print(Counter)

**9. Write a Python program to get the file size of a plain file.**

def file\_size(fname):

import os

statinfo = os.stat(fname)

return statinfo.st\_size

print("File size in bytes of a plain file: ",file\_size("kushal.txt"))

**10.Write a Python program to copy the contents of a file to another file .**

new\_file = open("copy.txt", "w")

with open("hello.txt", "r") as f:

new\_file.write(f.read())

new\_file.close()

**11. Write a Python program to sum all the items in a list.**

def sum\_list(items):

sum\_numbers = 0

for x in items:

sum\_numbers += x

return sum\_numbers

print(sum\_list([1,2,-8]))

**12. Write a Python program to multiplies all the items in a list.**

def multiply\_list(items):

tot = 1

for x in items:

tot \*= x

return tot

print(multiply\_list([1,2,-8]))

**13. Write a Python program to get the largest & smallest number from a list.**

NumList = []

Number = int(input("Please enter the Total Number of List Elements: "))

for i in range(1, Number + 1):

value = int(input("Please enter the Value of %d Element : " %i))

NumList.append(value)

print("The Smallest Element in this List is : ", min(NumList))

print("The Largest Element in this List is : ", max(NumList))

**14. Write a Python program to remove duplicates from a list.**

a = [10,20,30,20,10,50,60,40,80,50,40]

dup\_items = set()

uniq\_items = []

for x in a:

if x not in dup\_items:

uniq\_items.append(x)

dup\_items.add(x)

print(dup\_items)

**15. Write a Python program to check a list is empty or not.**

l = []

if not l:

print("List is empty")

else:

print("list is not empty")

**16.  Write a Python program to clone or copy a list.**

original\_list = [10, 22, 44, 23, 4]

new\_list = list(original\_list)

print(original\_list)

print(new\_list)

**17. Write a Python program to print a specified list after removing the 0th, 4th and 5th elements.**

**Sample List : ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']  
Expected Output : ['Green', 'White', 'Black']**

color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']

color = [x for (i,x) in enumerate(color) if i not in (0,4,5)]

print(color)

**18. Write a Python program to print the numbers of a specified list after removing even numbers from it.**

num = [7,8, 120, 25, 44, 20, 27]

num = [x for x in num if x%2!=0]

print(num)

**19. Write a Python program to shuffle and print a specified list.**

from random import shuffle

color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']

shuffle(color)

print(color)

**20) Write a Python program to get the difference between the two lists**.

def list\_diff(list1, list2):

return (list(set(list1) - set(list2)))

list1 = [11, 16, 21, 26, 31, 36, 41]

list2 = [26, 41, 36]

print(list\_diff(list1, list2))