

## module4

In [4]:	<pre>#1.Write a Python program to read an entire text file. txt = open('fn.txt') print(txt.read())  hello gitam universities</pre>
In [13]:	<pre>#2. Write a Python program to read first n lines of a file txt=open('fn.txt') for i in range(2):     line=txt.readline()     print('line no',i,':',line)  line no 0 : hello  line no 1 : gitam universities</pre>
In [20]:	<pre>#3.Write a Python program to append text to a file and display the text. name1 = input("Enter file to be read from: ") name2 = input("Enter file to be appended to: ") fin = open(name1, "r") data2 = fin.read() fin.close() fout = open(name2, "a") fout.write(data2) fout.close() txt=open(name2) print(txt.read())  Enter file to be read from: fn1.txt Enter file to be appended to: fn.txt hello gitam universitiesbtech in gitam bengaluru hyderabad vishakapatnam btech in gitam bengaluru hyderabad vishakapatnam</pre>
In [33]:	<pre>#4.Write a Python program to read last n lines of a file. def LastNLines(f,n):     with open(f) as file:         print('Last',n,"lines from file:",f)         for line in (file.readlines() [-n:]):             print(line, end='') name=input("enter the file name:") n= int(input("no of last lines to read:")) try:     LastNLines(name,n) except:     print("file error....")  enter the file name:fn.txt no of last lines to read:1 Last 1 lines from file: fn.txt bengaluru hyderabad vishakapatnam</pre>
In [24]:	<pre>#5.Write a Python program to read a file line by line store it into a variable. txt=open('fn.txt') for i in range(2):     line=txt.readline()     print(line)  hello  gitam universitiesbtech in gitam</pre>
In [23]:	<pre>#6.Write a Python program to read a file line by line and store it into a list. txt=open('fn.txt') line=list() for i in range(2):     line.append(txt.readline()) print(line)  ['hello \n', 'gitam universitiesbtech in gitam\n']</pre>
In [25]:	<pre>#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:         #Content_list is the list that contains the read lines.         for line in f:             content_array.append(line)         print(content_array)  file_read('fn.txt')  ['hello \n', 'gitam universitiesbtech in gitam\n', 'bengaluru hyderabad vishakapatnam\n', 'bte ech in gitam\n', 'bengaluru hyderabad vishakapatnam']</pre>
In [28]:	<pre>#8.Write a Python program to count the number of lines in a text file. txt=open('fn.txt') count=0 for line in txt:     count+=1 print('number of lines in a file is: ',count)  number of lines in a file is: 5</pre>
In [43]:	<pre>#9.Write a Python program to get the file size of a plain file. def filesn(name):     import os     info = os.stat(name)     return info.st_size print("File size in bytes of a plain file: ",filesn("demo.txt"))  File size in bytes of a plain file: 0</pre>
In [45]:	<pre>#10.Write a Python program to copy the contents of a file to another file . nfile = open("fn2.txt", "w") with open("fn.txt", "r") as f:     nfile.write(f.read()) nfile.close()</pre>
In [49]:	<pre>#11.Write a Python program to sum all the items in a list. t=0 list1=[1,20,19,30,15] for i in range(0, len(list1)):     t=t+list1[i] print("sum : ",t)  sum : 85</pre>
In [51]:	<pre>#12.Write a Python program to multiplies all the items in a list. list1=[1,3,6,11] result=1 for x in list1:     result=result*x print('multiplies all the items in a list= ',result)  multiplies all the items in a list= 198</pre>
In [53]:	<pre>#13.Write a Python program to get the largest &amp; smallest number from a list. list=[22,11,45,67,12,90] print("the smallest of the list is:",min(list)) print("the largest of the list is:",max(list))  the smallest of the list is: 11 the largest of the list is: 90</pre>
In [56]:	<pre>#14.Write a Python program to remove duplicates from a list. a=[] n= int(input("Enter the number of elements in list:")) for x in range(0,n):     element=int(input("Enter element" + str(x+1) + ":"))     a.append(element) b = set() unique = [] for x in a:     if x not in b:         unique.append(x)         b.add(x) print("Non-duplicate items:") print(unique)  Enter the number of elements in list:5 Enter element1:1 Enter element2:2 Enter element3:1 Enter element4:4 Enter element5:6 Non-duplicate items: [1, 2, 4, 6]</pre>
In [58]:	<pre>#15.Write a Python program to check a list is empty or not. l=[] if len(l)== 0:     print("the list is empty") else:     print("the list is not list")  the list is empty</pre>
In [61]:	<pre>#16.Write a Python program to clone or copy a list. def Clon(l11):     l1_copy = l11[:]     return l1_copy l1 = [8,10,12,6,12] l2 = Clon(l1) print("Original List:", l1) print("After Cloning:", l2)  Original List: [8, 10, 12, 6, 12] After Cloning: [8, 10, 12, 6, 12]</pre>
In [63]:	<pre>#17. Write a Python program to print a specified list after removing the 0th, 4th and 5th el ements. #Sample List : ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow'] #Expected Output : ['Green', 'White', 'Black'] l= ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow'] l= [x for (i,x) in enumerate(l) if i not in (0,4,5)] print(l)  ['Green', 'White', 'Black']</pre>
In [64]:	<pre>#18. Write a Python program to print the numbers of a specified list after removing even num bers from it. a = [1,2,5,3,6,9,8,13,12] a = [x for x in a if x%2!=0] print(a)  [1, 5, 3, 9, 13]</pre>
In [66]:	<pre>#19.Write a Python program to shuffle and print a specified list. from random import shuffle a = [1,3,45,56,78,99] shuffle(a) print(a)  [78, 45, 56, 3, 1, 99]</pre>
In [3]:	<pre>#20.Write a Python program to get the difference between the two lists. list1 = [11, 16, 21, 26, 31, 36, 41] list2 = [26, 41, 36] l3=list(set(list1) - set(list2)) print(l3)  [16, 11, 21, 31]</pre>
In [5]:	<pre>#1. Write a program that prints the integers from 1 to 100. But for multiples of #three print "Fizz" instead of the number, and for the multiples of five print "#Buzz". For numbers which are multiples of both three and five print "#FizzBuzz". for i in range(1,101):     if i % 3 == 0 and i % 5 == 0:         print("fizzbuzz")         continue     elif i % 3 == 0:         print("fizz")         continue     elif i % 5 == 0:         print("buzz")         continue     print(i)  1 2 fizz 4 buzz fizz 7 8 fizz buzz 11 fizz 13 14 fizzbuzz 16 17 fizz 19 buzz fizz 22 23 fizz buzz 26 fizz 28 29 fizzbuzz 31 32 fizz 34 buzz fizz 37 38 fizz buzz 41 fizz 43 44 fizzbuzz 46 47 fizz 49 buzz fizz 52 53 fizz buzz 56 fizz 58 59 fizzbuzz 61 62 fizz 64 buzz fizz 67 68 fizz buzz 71 fizz 73 74 fizzbuzz 76 77 fizz 79 buzz fizz 82 83 fizz buzz 86 fizz 88 89 fizzbuzz 91 92 fizz 94 buzz fizz 97 98 buzz</pre>
In [6]:	<pre>#2.Write a Python program to remove consecutive duplicates from list. from itertools import groupby x = [2,4,4,2,5,6,7,8,2,1,1] print([l[0] for i in groupby(x)])  [2, 4, 2, 5, 6, 7, 8, 2, 1]</pre>
In [8]:	<pre>#3. Write a python program to find unique element from a list. def unique(list1):     uniquelist=[]     for x in list1:         if x not in uniquelist:             uniquelist.append(x)         for x in uniquelist:             print(x) list1 = [30, 20, 10, 30, 50, 40,10] print("the unique values from 1st list is") unique(list1)  the unique values from 1st list is 30 20 10 50 40</pre>
In [10]:	<pre>#4.Write a function that checks whether a number is in a given range (inclusive of #high and low) def testRange(n):     if n in range(1,20):         print(" %s is in the range"%str(n))     else :         print("The number is outside the given range.") n=int(input("enter the number:")) testRange(n)  enter the number:16 16 is in the range</pre>
In [13]:	<pre>#5.Write a Python function that accepts a string and calculates the number of #upper case letters and lower case letters. #Sample String : 'Hello Mr. Rogers, how are you this fine Tuesday?' #Expected Output : #No. of Upper case characters : 4 #No. of Lower case Characters : 33 #Hint: Two string methods that might prove useful .isupper() and .islower() def uplow(s):     u = sum(1 for i in s if i.isupper())     l = sum(1 for i in s if i.islower())     print("No. of Upper case characters : %s \nNo. of Lower case characters : %s" % (u,l)) uplow("Hello Mr. Rogers, how are you this fine Tuesday?")  No. of Upper case characters : 4 No. of Lower case characters : 33</pre>