In [3]:

```
#write a python program to read an entire text file.
def file_read(fname):
        txt = open(fname)
        print(txt.read())

file_read('test.txt')
```

```
python is a user friendly program
Python is a widely used high-level
general-purpose
interpreted
dynamic programming language
its design philosophy emphasizes code readability
its syntax allows programmers to express concepts in fewer lines of cod
e than possible in
languages such as C++ or Java.
Python supports multiple programming paradigms
including object-oriented
imperative and functional programming or procedural styles
It features a dynamic type system and automatic memory management and h
as a large and comprehensive standard library.The best way we learn any
thing is by practice and exercise questions. We  have started this sect
ion for those (beginner to intermediate) who are
familiar with Python.
```

In [4]:

```
#.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)
```

```
python is a user friendly program
```

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```
Python is a widely used high-level
```

In [16]:

```python
#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("online course\n")
                myfile.write("gitam school of technology")
        txt = open(fname)
        print(txt.read())
file_read('test.txt')
```

```
  Python Exercises
online course
gitam school of technology
```

In [34]:

```python
#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:test.txt
no of last lines to read:2
Last 2 lines from file: test.txt
online course
gitam school of technology
```

In [22]:

```python
#Write a Python program to read a file line by line store it into a var
```

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```
iable.
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')
```

```
['  Python Exercises\n', 'online course\n', 'gitam school of technolog
y']
```

In [23]:

```
#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 is the list that contains the read lines.

                content_list = f.readlines()
                print(content_list)

file_read('test.txt')
```

```
['  Python Exercises\n', 'online course\n', 'gitam school of technolog
y']
```

In [24]:

```
#write a python program to read a file line by line and store it into a
rray
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('test.txt')
```

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```
['  Python Exercises\n', 'online course\n', 'gitam school of technolog
y']
```

In [28]:

```
#write a python program to count the number of lines in a text file.
file = open("test.txt","r")
Counter = 0

# Reading from file
Content = file.read()
CoList = Content.split("\n")

for i in CoList:
    if i:
        Counter += 1

print(" the number of lines in the file=")
print(Counter)
```

```
 the number of lines in the file=
3
```

In [29]:

```
#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("test1.txt"))
```

```
File size in bytes of a plain file:  0
```

In [1]:

```
#write a python program to copy the contents of a file to another file
new_file = open("test.txt", "w")
with open("test1.txt", "r") as f:
    new_file.write(f.read())

new_file.close()
```

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In [2]:

```
#python program to sum all the items in the list
total=0
list=[1,5,7,9,8,20]
for i in range(0,len(list)):
    total=total+list[i]
print("sum of all elements in the list:",total)
```

```
sum of all elements in the list: 50
```

In [3]:

```
#python program to multiply all elements in the list
def multiply(mylist):
    result=1
    for x in mylist:
        result=result*x
    return result
list=[3,2,4]
print(multiply(list))
```

```
24
```

In [4]:

```
#python program to find largest and smallest number in the list.
list=[1,78,90,12,100]
print("the smallest number in the list is:",min(list))
print("the largest number in the list is:",max(list))
```

```
the smallest number in the list is: 1
the largest number in the list is: 100
```

In [5]:

```
#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:
```

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```
        unique.append(x)
        b.add(x)
print("Non-duplicate items:")
print(unique)
```

```
Enter the number of elements in list:5
Enter element1:2
Enter element2:1
Enter element3:4
Enter element4:6
Enter element5:4
Non-duplicate items:
[2, 1, 4, 6]
```

In [6]:

```
#python program to check a list is empty or not
def check(list):
    if len(list)== 0:
        return 0
    else:
        return 1
list=[]
if check(list):
    print("the list is not empty")
else:
    print("empty list")
```

```
empty list
```

In [14]:

```
#python program to clone or copy a list
def Cloning(li1):
    li_copy = li1[:]
    return li_copy


li1 = [4, 8, 2, 10, 15, 18]
li2 = Cloning(li1)
print("Original List:", li1)
print("After Cloning:", li2)
```

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```
Original List: [4, 8, 2, 10, 15, 18]
After Cloning: [4, 8, 2, 10, 15, 18]
```

In [13]:

```
#Write a Python program to print a specified list after removing the 0th,4th,5th elements
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']
```

In [10]:

```
#.Write a python program to print the numbers of a specified list after removing even number form it.
a = [0,1,2,3,4,5,6,7,8,9,10]
a = [x for x in a if x%2!=0]
print(a)
```

```
[1, 3, 5, 7, 9]
```

In [15]:

```
#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)
```

```
[45, 56, 99, 1, 3, 78]
```

In [28]:

```
#Write a Python program to get the difference between the two lists.
def list_diff(list1, list2):
        return (list(set(list1) - set(list2)))

# Test Input
list1 = [11, 16, 21, 26, 31, 36, 41]
list2 = [26, 41, 36]

# Run Test
print(list_diff(list1, list2))
```

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```
---------------------------------------------------------------------------
----
TypeError                                 Traceback (most recent call l
ast)
<ipython-input-28-2f276f0541a8> in <module>
      7
      8 # Run Test
----> 9 print(list_diff(list1, list2))

<ipython-input-28-2f276f0541a8> in list_diff(list1, list2)
      1 def list_diff(list1, list2):
----> 2         return (list(set(list1) - set(list2)))
      3
      4 # Test Input
      5 list1 = [11, 16, 21, 26, 31, 36, 41]

TypeError: 'list' object is not callable
```

In [29]:

```
#.Write a program that prints the integers from 1 to 100. But for multi
ples of three print "Fizz" instead of the number, and for the multiples
 of five print "Buzz". For numbers which are multiples of both three an
d 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
```

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```
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
```

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```
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
```

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```
fizz
buzz
86
fizz
88
89
fizzbuzz
91
92
fizz
94
buzz
fizz
97
98
fizz
buzz
```

In [30]:

```python
#Write a Python program to remove consecutive duplicates from list.
from itertools import groupby

x = [2,3,4,5,5,5,6,7,7,8,9]
print([i[0] for i in groupby(x)])
```

```
[2, 3, 4, 5, 6, 7, 8, 9]
```

In [31]:

```python
#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 = [10, 20, 10, 30, 40, 40]
print("the unique values from 1st list is")
unique(list1)
```

```
the unique values from 1st list is
```

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```
10
20
30
40
```

In [32]:

```
#Write a function that checks whether a number is in a given range (inc
lusive of high and low)
def testrange(n):
    if n in range(3,9):
        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:10
The number is outside the given range.
```

In [33]:

```
#Write a Python function that accepts a string and calculates the numbe
r of upper case letters and lower case letters. Sample String : 'Hello
 Mr. Rogers, how are you this fine Tuesday?' Expected Output : No. of U
pper case characters : 4 No. of Lower case Characters : 33 HINT: Two st
ring 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,No. of Lower case charact
ers : %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
```

In [ ]:

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