```python
In [4]:   #program to read an entire text file
          def read(a):
                  txt = open(a)
                  print(txt.read())
          a=input("enter the file name:")
          read(a)
```

```
enter the file name:f1.txt
hi
hello
welcome
to
gitam
school
of
technology
```

```python
In [10]:  #program to read first n lines of a file
          a_file = open("f1.txt")
          number_of_lines = 3

          for i in range(number_of_lines):
              line = a_file.readline()
              print(line)
```

```
hi

hello

welcome
```

```python
In [11]:  #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')
```

```
Python Exercises
Java Exercises
```

```python
In [12]:  #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:f1.txt
no of last lines to read:3
Last 3 lines from file: f1.txt
school
of
technology
```

```python
In [14]:  #program to read a file line by line store it into a variable
          def file_read(fname):
                  with open(fname, "r") as myfile:
                          data=myfile.readlines()
                          print(data)
          file_read('f1.txt')
```

```
['hi\n', 'hello\n', 'welcome\n', 'to\n', 'gitam\n', 'school\n', 'of\n',
'technology']
```

```python
In [16]:  #profram 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('f1.txt')
```

```
['hi\n', 'hello\n', 'welcome\n', 'to\n', 'gitam\n', 'school\n', 'of\n',
'technology']
```

```python
In [17]:  #program to read a file line by line and 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('f1.txt')
```

```
['hi\n', 'hello\n', 'welcome\n', 'to\n', 'gitam\n', 'school\n', 'of\n',
'technology']
```

```python
In [21]:  #program to count the number of lines in a text file
          file = open("f1.txt","r")
          Count = 0

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

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

          print("The number of lines in the file is:")
          print(Count)
```

```
The number of lines in the file is:
8
```

```python
In [23]:  #program to get the file sie 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("abc.txt"))
```

```
file size in bytes of a plain file: 32
```

```python
In [24]:  #program to copy the contents of a file to another file
          from shutil import copyfile
          copyfile('f1.txt', 'f2.txt')
```

```
Out[24]:  'f2.txt'
```

```python
In [25]:  #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]))
```

```
-5
```

```python
In [26]:  #program to multiply all the items in a list
          def multiply(numbers):
              total = 1
              for x in numbers:
                  total *= x
              return total
          print(multiply((8, 2, 3, -1, 7)))
```

```
-336
```

```python
In [27]:  #program to get the largest ana smallest numbers from a list
          lst = []
          num = int(input('How many numbers: '))
          for n in range(num):
              numbers = int(input('Enter number '))
              lst.append(numbers)
          print("Maximum element in the list is :", max(lst), "\nMinimum element i
          n the list is :", min(lst))
```

```
How many numbers: 4
Enter number 1
Enter number 2
Enter number 3
Enter number 4
Maximum element in the list is : 4
Minimum element in the list is : 1
```

```python
In [28]:  #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)
```

```
{40, 10, 80, 50, 20, 60, 30}
```

```python
In [29]:  #program to check list is empty or not
          l = []
          if not l:
            print("List is empty")
```

```
List is empty
```

```python
In [30]:  #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)
```

```
[10, 22, 44, 23, 4]
[10, 22, 44, 23, 4]
```

```python
In [31]:  #program to print specified list after removing the 0th, 4th,and 5th ele
          color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']
          color = [x for (i,x) in enumerate(color) if i not in (0,4,5)]
          print(color)
```

```
['Green', 'White', 'Black']
```

```python
In [32]:  #program to print the numbers of a specified list after removing even nu
          mbers from it
          num = [7,8, 120, 25, 44, 20, 27]
          num = [x for x in num if x%2!=0]
          print(num)
```

```
[7, 25, 27]
```

```python
In [33]:  #program to shuffle and print a specified list
          from random import shuffle
          color = ['Red', 'Green', 'White', 'Black', 'Pink', 'Yellow']
          shuffle(color)
          print(color)
```

```
['Black', 'Pink', 'Green', 'Yellow', 'Red', 'White']
```

```python
In [34]:  #program to get the difference between two list
          list1 = [1, 3, 5, 7, 9]
          list2=[1, 2, 4, 6, 7, 8]
          diff_list1_list2 = list(set(list1) - set(list2))
          diff_list2_list1 = list(set(list2) - set(list1))
```