PROGRAMMING EXERCISE

1. Write a function stats() that takes one input argument: the name of a text file. The function should print, on the screen, the number of lines, words, and characters in the file your function should open the file only once.
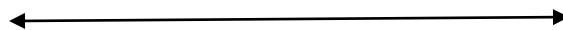
Input:

```python
def stats(file):
    f = open(file)
    contents = f.read()
    print('the total no. of characters counted are :',len(contents))
    with open(file) as f1:
        print('the total no. of lines counted are :',len(f1.readlines()))
    with open(file) as f1:
        print('the total no. of words counted are :',len((f1.read()).split(' ')))
stats('kabeer.txt')
```

Output:

the total no. of characters counted are : 53

the total no. of lines counted are : 3

the total no. of words counted are : 10

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2. Implement function distribution() that takes as input the name of a file (as a string). This one-line file will contain letter grades separated by blanks Your function should print the distribution of grades

Input:

```python
def distribution(file):
    ld=[6,2,3,2,2,1,2]
    with open(file) as f1:
        for i,j in zip((f1.read()).split(' '),ld):
            print('student got grades', i,j)
distribution('kabeer.txt')
```

Output:

student got grades A 6

student got grades A 2

student got grades B 3

student got grades B 2

student got grades C 2

student got grades C 1

student got grades D 2

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3. Implement function duplicate() that takes as input the name (a string) of a file in the current directory and returns True if the file contains duplicate words and False otherwise.

Input:

```python
def duplicate(file):
    with open(file) as f2:
        con=f2.read().split(' ')
        for i in range(len(con)):
            if con[i]!=con[i+1]:
                print(True)
            else:
                print(False)
                print("THIS FILE does not CONTAIN DUPLICATE WORDS")
                break
duplicate('kabeer.txt')
```

Output:

False

THIS FILE does not CONTAIN DUPLICATE WORDS

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