In [4]:
```
# Read a File - File should Exist in some part of the sotorage (Read Mode)

# Write to a File - Existing( append mode)  or New File(Write mode)
def readFile(filePath):
    with open(filePath, 'r') as f:
        filedata = f.read()
        lines=filedata.split('\n')
    return lines

filePath = 'DataFiles/data.txt'
print(readFile(filePath))
```

```
['Line1', 'Line2']
```

In [17]:
```
def readFile(filepath):
    with open(filepath,'r')  as f:# Refference to the file object
        filedata=f.read()
        print(len(filedata))
    return filedata
filepath = 'Data Files/data.txt'
print(readFile(filepath))
```

```
29
line1
line1
nine2 line3
nine2
```

In [32]:
```
# Function to count number of lines in a file

def countLinesFile(filepath):
    count=len(readFile(filepath).split())
    return count
countLinesFile(filepath)
```

Out[32]: 2

In [19]:
```
import re
def wordcount(filepath):
    pattern='[, \n]'
    #filepath='Data Files\data.txt'
    filedata =readFile(filepath)
    print(filedata)
    count=len(re.split(pattern,filedata))
    return count
wordcount(filepath)
```

```
29
line1
line1
nine2 line3
nine2
```

Out[19]: 5

In [31]:
```
def charcount(filepath):
    count=len(readFile(filepath))
    return count
charcount(filepath)
```

Out[31]: 34

In [24]:
```
# Function to fet unique elements in a list
# [1,2,3,3,2,1]------>[1,2,3]
# Create empty unique list[]
def uniqueData(li):
    # create an empty unique list
    unique=[]
    # for every element in the main list,
        # Checck if it exists in the unique list
        # If it does not exist,add it to unique list
        # else if it already exists ,move  on to the main list and add it to

    for element in li:
        if element not in unique:
            unique.append(element)
    return unique
li=[1,2,3,3,2,1]
uniqueData(li)

```

Out[24]: [1, 2, 3]

In [24]:
```
# Function to find the unique letters of the data in a file
def Unique(filePath):
    unique=[]
    with open(filePath, 'r') as f:
        filedata=f.read()
        for i in filedata:
            if i not in unique:
                unique.append(i)
        print(unique)

filePath = 'Data Files/data.txt'
Unique(filePath)
```

```
['1', 'i', 'n', 'e', '1', '\n', '2', ' ', '3']
```

In [26]:
```
# Function to find the unique letters count of the data in a file
def Unique(filePath):
    unique=[]
    c=0
    with open(filePath, 'r') as f:
        filedata=f.read().split()
        for i in filedata:
            if i not in unique:
                unique.append(i)
                c=c+1
    print(unique)
    print(c)

filePath = 'Data Files/data.txt'
Unique(filePath)
```

```
['line1', 'nine2', 'line3']
3
```

In [27]:
```
# Function to find the unique word count and the frequency of the data in a
def Unique(filePath):
    unique=[]
    freq=[]
    with open(filePath, 'r') as f:
        filedata=f.read().split()
    print(filedata)
    for element in filedata:
        if element not in unique:
            unique.append(element)
    print(unique)
    for i in unique:
        print(i,':',filedata.count(i))

filePath = 'Data Files/data.txt'
Unique(filePath)
```

```
['line1', 'line1', 'nine2', 'line3', 'nine2']
['line1', 'nine2', 'line3']
line1 : 2
nine2 : 2
line3 : 1
```

n=int(input()) a=int(input()) if(abs(n-a)<(n-b)):

In [ ]:
```

```