Lab7b question *#here we have imported two packages they are random,random is used to get the RandomNumbers and statistics, from statistics we have imported mean to calculate  
#average of the list*import random  
from statistics import mean  
*#methodName:-writingDataToFile  
#params:-n-is endLimit to generate the random number  
#n1,n2:- they are used to generate the random number between those limits  
#fileName:-fileName is used to store the data,which is generated*def writingDataToFile(n, n1, n2,filename):  
  
 nRandomNumbers = [random.randint(n1, n2) for \_ in range(n)]  
 with open(filename, 'w') as file:  
 for num in nRandomNumbers:  
 file.write(str(num) + '\n')  
*#methodName:-read\_file\_and\_process  
#savedFileName:-savedFileName is used here because,here we trying to read the data from the file*def read\_file\_and\_process(savedFileName):  
 with open(savedFileName, 'r') as file:  
 randomNumberList = [int(line.strip()) for line in file]  
 return randomNumberList  
*#methodName:-get\_user\_input  
#params:-userInput  
#userInput:-it is for get proper usrInputs from the EndUser and here we have validated that user is entered  
#int dataType or not*def get\_user\_input(userInput):  
 while True:  
 try:  
 user\_input = input(userInput)  
 return int(user\_input)  
 except ValueError:  
 print("Provide integers as your inputs!")  
n = get\_user\_input("How many random numbers ? ")  
n1 = get\_user\_input("The possible minimun random? ")  
n2 = get\_user\_input("The possible maximum random? ")  
fileName=input("File name for saving randon numbers: ")  
fileNameToRead=input("The name of file containing the random numbers? ")  
while fileNameToRead!=fileName:  
 fileNameToRead=input("The name of file containing the random numbers? ")  
writingDataToFile(n,n1,n2,fileName)  
fileDataList=read\_file\_and\_process(fileNameToRead)  
print("The returned list is: ",fileDataList)  
resultString="That means :"  
resultString=resultString+"The lowest number is " + str(min(fileDataList))+","  
resultString=resultString+"The larges number is " + str(max(fileDataList))+","+"\n"  
resultString=resultString+"there are " + str(len(fileDataList))+" numbers ,"  
resultString=resultString+"The larges number is " +str( round(mean(fileDataList),2))+"."  
print(resultString)

Generated files will be store in executed file location

A screenshot of a computer

Description automatically generated

Validation:



A screenshot of a computer code

Description automatically generated



