**Exercise**

Your local university's Raptors fan club maintains a register of its active members on a .txt document. Every month they update the file by removing the members who are not active. You have been tasked with automating this with your Python skills.  
Given the file currentMem, Remove each member with a 'no' in their Active column. Keep track of each of the removed members and append them to the exMem file. Make sure that the format of the original files in preserved. (*Hint: Do this by reading/writing whole lines and ensuring the header remains*)  
Run the code block below prior to starting the exercise. The skeleton code has been provided for you. Edit only the cleanFiles function.

*#Run this prior to starting the exercise*

**from** random **import** randint **as** rnd

​

memReg **=** 'members.txt'

exReg **=** 'inactive.txt'

fee **=**('yes’, ‘no')

​

**def** genFiles(current, old):

**with** open(current,'w+') **as** writefile:

writefile.write('Membership No Date Joined Active \n')

data **=** "{:^13} {:<11} {:<6}\n"

​

**for** rowno **in** range(20):

date **=** str(rnd(2015,2020))**+** '-' **+** str(rnd(1,12))**+**'-'**+**str(rnd(1,25))

writefile.write(data.format(rnd(10000,99999),date,fee[rnd(0,1)]))

​

​

**with** open(old,'w+') **as** writefile:

writefile.write('Membership No Date Joined Active \n')

data **=** "{:^13} {:<11} {:<6}\n"

**for** rowno **in** range(3):

date **=** str(rnd(2015,2020))**+** '-' **+** str(rnd(1,12))**+**'-'**+**str(rnd(1,25))

writefile.write(data.format(rnd(10000,99999),date,fee[1]))

​

​

genFiles(memReg, exReg)

​

Now that you've run the prerequisite code cell above, which prepared the files for this exercise, you are ready to move on to the implementation.

**Exercise: Implement the cleanFiles function in the code cell below.**

'''

The two arguments for this function are the files:

- currentMem: File containing list of current members

- exMem: File containing list of old members

This function should remove all rows from currentMem containing 'no'

in the 'Active' column and appends them to exMem.

'''

**The code cell below is to verify your solution. Please do not modify the code and run it to test your implementation of cleanFiles.**

**def** testMsg(passed):

**if** passed:

**return** 'Test Passed'

**else** :

**return** 'Test Failed'

​

testWrite **=** "testWrite.txt"

testAppend **=** "testAppend.txt"

passed **=** **True**

​

genFiles(testWrite,testAppend)

​

**with** open(testWrite,'r') **as** file:

ogWrite **=** file.readlines()

​

**with** open(testAppend,'r') **as** file:

ogAppend **=** file.readlines()

​

**try**:

cleanFiles(testWrite,testAppend)

**except**:

print('Error')

​

**with** open(testWrite,'r') **as** file:

clWrite **=** file.readlines()

​

**with** open(testAppend,'r') **as** file:

clAppend **=** file.readlines()

*# Checking if total no of rows is same, including headers*

​

**if** (len(ogWrite) **+** len(ogAppend) **!=** len(clWrite) **+** len(clAppend)):

print("The number of rows do not add up. Make sure your final files have the same header and format.")

passed **=** **False**

**for** line **in** clWrite:

**if** 'no' **in** line:

passed **=** **False**

print("Inactive members in file")

**break**

**else**:

**if** line **not** **in** ogWrite:

print("Data in file does not match original file")

passed **=** **False**

print ("{}".format(testMsg(passed)))

​

​

**SOLUTION:**

**def** cleanFiles(currentMem,exMem):

**with** open(currentMem,'r+') **as** writeFile:

**with** open(exMem,'a+') **as** appendFile:

*#get the data*

writeFile.seek(0)

members **=** writeFile.readlines()

*#remove header*

header **=** members[0]

members.pop(0)

inactive **=** [member **for** member **in** members **if** ('no' **in** member)]

'''

The above is the same as

for member in members:

if 'no' in member:

inactive.append(member)

'''

*#go to the beginning of the write file*

writeFile.seek(0)

writeFile.write(header)

**for** member **in** members:

**if** (member **in** inactive):

appendFile.write(member)

**else**:

writeFile.write(member)

writeFile.truncate()

memReg **=** 'members.txt'

exReg **=** 'inactive.txt'

cleanFiles(memReg,exReg)

*# code to help you see the files*

headers **=** "Membership No Date Joined Active \n"

**with** open(memReg,'r') **as** readFile:

print("Active Members: \n\n")

print(readFile.read())

**with** open(exReg,'r') **as** readFile:

print("Inactive Members: \n\n")

print(readFile.read())