# **CMPE 327: Assignment 6**

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## **Source Listing**

## Daily.py

```
import subprocess
import os
import sys
class FileNames():
   DAILY_FOLDER_PREFIX = 'T'
    NO_VALID_ACCOUNTS_FILE_INDICATOR = '.no_valid_accounts'
    VALID_ACCOUNTS_FILE = 'valid_accounts.txt'
    INPUT_FILE_SUFFIX = '.txt'
    OUTPUT_FILE_SUFFIX = '.out.txt'
    EXPECTED_NONE_OUTPUT_FILE = 'none.out.expected.txt'
    EXPECTED_OUTPUT_FILE_SUFFIX = '.out.expected.txt'
    ACTUAL CONSOLE FILE SUFFIX = '.console.actual.txt'
    EXPECTED CONSOLE FILE SUFFIX = '.console.expected.txt'
currentDay = 1
day = sys.argv[1]
path = './D%s/'%(day)
for currentDirectoryGenerator in os.walk(path):
    # Get the current directory name
    currentDirectory = currentDirectoryGenerator[0]
    print(currentDirectory)
    # If this is a test case directory
    if(FileNames.DAILY_FOLDER_PREFIX in currentDirectory):
        # Split the directory name to get separate folder names
        currentDirectory = currentDirectory.replace('\\', '/')
        directoryNames = currentDirectory.split('/')[1:]
        currentRequirementName = directoryNames[0]
        currentTestCaseName = directoryNames[1]
        currentTestName = currentRequirementName + currentTestCaseName
        # SEPARATE DAILY SESSIONS
        # In folder structure DxTx currentRequirementName[1] = D(x)
```

```
# ex. D1 : currentRequirementName[1] = 1
             D4 : currentRequirementName[1] = 4
        # Check if we need to run backend: no more files in Dx/T1...Dx/T4
        # Keep track of current session number, and if there are no more files
        # after that session number, call backend
        lastElement = currentDirectory[len(currentDirectory)-1]
        temp = currentDirectory[:-1]
        nextElement = int(lastElement) + 1
        nextElement = str(nextElement)
        nextPath = temp + nextElement
        # call backend once no more transaction summary files are left
        if(not os.path.exists(nextPath)):
            currentCommandToRun = ['python'] + ['backend.py'] + [str(day)]
            #call backend because next session does not exist
            try:
                backendProcess = subprocess.run(currentCommandToRun)
                currentDay = currentDay + 1
            except subprocess.TimeoutExpired:
                pass
        currentTestName = currentRequirementName + currentTestCaseName
        inputFileName = currentDirectory + '/' + currentTestName +
FileNames.INPUT_FILE_SUFFIX
        outputFileName = currentDirectory + '/' + currentTestName +
FileNames.OUTPUT_FILE_SUFFIX
        currentInputLines = ''
        with open(inputFileName, 'r') as inputFile:
            currentInputLines = inputFile.read()
        currentCommandToRun = ['python'] + ['frontend.py'] +
['valid accounts.txt'] + [outputFileName]
        # Run the frontend script
        frontendOutput = ''
        try:
            frontendProcess = subprocess.run(
                currentCommandToRun,
```

```
stdout=subprocess.PIPE,
    stderr=subprocess.DEVNULL,
    input=currentInputLines,
        universal_newlines=True
    )
    frontendOutput = frontendProcess.stdout

except subprocess.TimeoutExpired:
    pass
```

### Weekly.py

```
import os
import subprocess
import glob
# if this string has length of 2 (and starts with D)
# return true, else false
def filterFolderStructure(arr):
    if(len(arr) == 2):
        return True
    else:
        return False
# get all files/folders starting with D
files = glob.glob("D*")
# get array of folders with our filter applied
folders = filter(filterFolderStructure, files)
# run the daily script with all the "days" we found
for i in folders:
    i = i.replace('D','')
    # run daily with what day of the week we want
    runCommand = ["python"]+["daily.py"]+[i]
    try:
```

```
runDaily = subprocess.run(runCommand)
except subprocess.TimeoutExpired:
   pass
```

# **Set of Transaction Inputs**

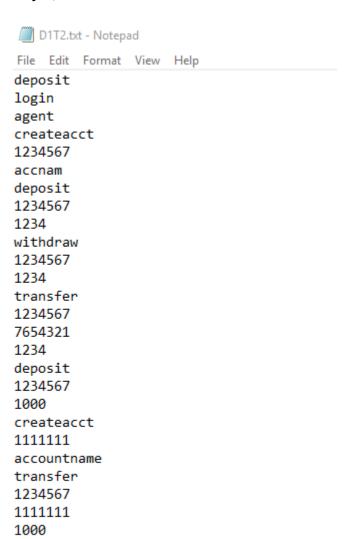
## Day 1, Transaction Session 1:

```
D1T1.txt - Notepad
File Edit Format View Help
login
machine
logout
login
agent
logout
login
agent
createacct
1324364
michael
createacct
2435681
sasanka
exit
```

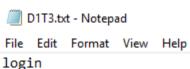
## Day 1, Transaction Session 2:

deleteacct 1111111 accountname

logout exit



## Day 1, Transaction Session 3:



machine

deposit

1234567

1234

withdraw

1234567

1000

transfer

1234567

7654321

1234

createacct

deleteacct

logout

login

agent

deposit

1234567

1234

withdraw

1234567

1000

transfer

1234567

7654321

1234

createacct

1111111

accountname

deleteacct

1111111

accountname

logout

### Day 1, Transaction Session 4:

```
D1T4.txt - Notepad

File Edit Format View Help

login

machine
login

logout
login
agent
logout
login
agent
logout
```

## **Merged Transaction Summary**

### Day 1 merged transaction summary file:

```
day_merged_out.txt - Notepad
File Edit Format View Help
EOS 0000000 000 0000000 ***
EOS 0000000 000 0000000 ***
NEW 1324364 000 0000000 michael
NEW 2435681 000 0000000 sasanka
NEW 1234567 000 0000000 accnam
DEP 1234567 1234 0000000 ***
WDR 1234567 1234 0000000 ***
DEP 1234567 1000 00000000 ***
NEW 1111111 000 0000000 accountname
XFR 1111111 1000 1234567 ***
DEL 1111111 000 0000000 accountname
EOS 0000000 000 00000000 ***
EOS 0000000 000 00000000 ***
NEW 1111111 000 0000000 accountname
DEL 1111111 000 0000000 accountname
EOS 0000000 000 00000000 ***
EOS 0000000 000 00000000 ***
EOS 0000000 000 00000000 ***
EOS 0000000 000 0000000 ***
```

## Master Accounts Files

### Day 1:

```
master_accounts_out.txt - Notepad

File Edit Format View Help

1324364 0 michael

2435681 0 sasanka

1234567 0 accnam
```

#### **Day 2:**

master\_accounts\_out.txt - Notepad

```
File Edit Format View Help

1324364 0 michael

2435681 0 sasanka

1234567 0 accnam

3153759 0 jordan

1111111 0 AccountName
```

### **Day 3:**

master\_accounts\_out.txt - Notepad

File Edit Format View Help

1324364 0 michael

2435681 0 sasanka

1234567 0 accnam

3153759 0 jordan

111111 0 AccountName

### Day 4:

master\_accounts\_out.txt - Notepad

File Edit Format View Help

1324364 0 michael

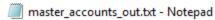
2435681 0 sasanka

1234567 0 accnam

3153759 0 jordan

1111111 0 AccountName

## Day 5:



File Edit Format View Help

1324364 0 michael

2435681 0 sasanka

1234567 0 accnam

3153759 0 jordan

1111111 0 AccountName

# Integration Defect Report

File	Defect	Fix
backend.py	Inefficient calling of script (too many input arguments)	Abstraction into daily.py script
frontend.py	Incorrect checking of valid accounts	Have file update after every session
daily.py	Two different sessions may withdrawal more than balance in account and be processed at the end of day	Implement balances in the front end