

CMPE 327: Assignment 6

Koality Assured

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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:]
        # Get the current requirement and test case from folders
        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:

 D1T2.txt - Notepad

File Edit Format View Help

```
deposit
login
agent
createacct
1234567
accnam
deposit
1234567
1234
withdraw
1234567
1234
transfer
1234567
7654321
1234
deposit
1234567
1000
createacct
1111111
accountname
transfer
1234567
1111111
1000
deleteacct
1111111
accountname
logout
exit
```


Day 1, Transaction Session 3:

 D1T3.txt - Notepad

File Edit Format View Help

```
login
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 0000000 ***  
NEW 1111111 000 0000000 accountname  
XFR 1111111 1000 1234567 ***  
DEL 1111111 000 0000000 accountname  
EOS 0000000 000 0000000 ***  
EOS 0000000 000 0000000 ***  
NEW 1111111 000 0000000 accountname  
DEL 1111111 000 0000000 accountname  
EOS 0000000 000 0000000 ***  
EOS 0000000 000 0000000 ***  
EOS 0000000 000 0000000 ***  
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

1111111 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:

 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

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