

Assignment 6
Scarlet FlashView

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(1) A source listing of your Daily and Weekly scripts.

Daily Script: daily.py

```
import sys
import Backend
import Frontend
import os

# create a "Daily" script to run frontend and backend
def main():
    # runs Front End over 3 transaction sessions
    number_of_transaction_sessions = 3
    # save the output Transaction Summary File for each session in a separate file
    for i in range(number_of_transaction_sessions):
        sys.argv = [
            'Frontend.py',
            'ValidAccountListFile.txt',
            'DailySession/TransactionSummaryFile' + str(i + 1) + '.txt']
        Frontend.main()

    # concatenates the separate Transaction Summary Files into a Merged Transaction Summary file
    files = os.listdir("DailySession/")
    with open("TransactionSummaryFile.txt", 'w') as result:
        for f in files:
            for line in open("DailySession/" + f, 'r'):
                if "EOS" not in line:
                    result.write(line)
            result.write("EOS 0000000 000 0000000 ***\n")
        result.close()

    # remove separate Transaction Summary Files
    file = os.listdir("DailySession/")
    for i in file:
        os.remove("DailySession/" + i)

    # runs your Back Office with the Merged Transaction Summary File as input
    sys.argv = [
        'Backend.py',
        'MasterAccountsFile.txt',
        'TransactionSummaryFile.txt']
    Backend.main()

if __name__ == "__main__":
    main()
```

Weekly Script: weekly.py

```
import sys
import daily
import io

# create a "Weekly" script that runs the Daily script five separate times, simulating five days of
operation
def main():
    # Begin Weekly run with an empty Valid Accounts List and an empty Master Accounts File
    open("ValidAccountListFile.txt", 'w').close()
    open("MasterAccountsFile.txt", 'w').close()
    # day one terminal input
    day_one = [
        'login', 'agent', 'createacct', 'Theo', '6666666', 'logout',
        'login', 'agent', 'createacct', 'Kelly', '8888888', 'logout',
        'login', 'agent', 'createacct', 'Sunny', '8888886', 'logout'
    ]
    # day two terminal input
    day_two = [
        'login', 'agent', 'deposit', '6666666', '500', 'logout',
        'login', 'agent', 'deposit', '8888888', '600', 'logout',
        'login', 'agent', 'deposit', '8888886', '200', 'logout'
    ]
    # day three terminal input
    day_three = [
        'login', 'atm', 'deposit', '6666666', '500', 'logout',
        'login', 'atm', 'deposit', '8888888', '600', 'logout',
        'login', 'atm', 'withdraw', '8888886', '200', 'logout'
    ]
    # day four terminal input
    day_four = [
        'login', 'agent', 'deleteacct', 'Sunny', '8888886', 'logout',
        'login', 'agent', 'transfer', '8888888', '6666666', '600', 'logout',
        'login', 'agent', 'deposit', '6666666', '200', 'logout'
    ]
    # day five terminal input
    day_five = [
        'login', 'agent', 'deposit', '6666666', '500', 'logout',
        'login', 'agent', 'deposit', '8888888', '600', 'logout',
        'login', 'agent', 'createacct', 'ZJT', '4333333', 'logout',
    ]

    days = [day_one, day_two, day_three, day_four, day_five]
    for i in days:
        sys.stdin = io.StringIO(
            '\n'.join(i))
```

```
# run the daily program
daily.main()
```

```
if __name__ == '__main__':
    main()
```

(2) A printout of the set of transaction session inputs for one run of your Daily script.

day five inputs:

```
login
agent
deposit
6666666
500
logout
```

```
login
agent
deposit
8888888
600
logout
```

```
login
agent
createacct
ZJT
4333333
logout
```

(3) A printout of the Merged Transaction Summary file from that same Daily run.

```
DEP 6666666 50000 0000000 ***
DEP 8888888 60000 0000000 ***
NEW 4333333 000 0000000 ZJT
EOS 0000000 000 0000000 ***
```

(4) A printout of the Master Accounts File after each of the five Daily runs made by your Weekly script.

day one:

```
6666666 0000 Theo
8888886 0000 Sunny
8888888 0000 Kelly
```

day two:

6666666 50000 Theo

8888886 20000 Sunny

8888888 60000 Kelly

day three:

6666666 100000 Theo

8888886 0000 Sunny

8888888 120000 Kelly

day four:

6666666 180000 Theo

8888888 60000 Kelly

day five:

4333333 0000 ZJT

6666666 230000 Theo

8888888 120000 Kelly

(5) Integration Defect Report

The scripts can run on the terminal of Windows. Mac does not support to run the scripts on terminal, but it can run directly on Python IDE.

Problems	Error in code	Solution
can't run Frontend 3 times in daily.py; the Frontend program never stops	Miss a return statement to quit the program after user inputs 'logout'	add a "return True" at the end of logout function in <i>Frontend.py</i>
when balance is 0, the format in the master accounts file is not correct, the money is represented as "0" not "0000"	In <i>Backend.py</i> , when checking if the balance is 0, the string "0000" is converted to integer 0.	In <i>Backend.py</i> , if the balance is 0, convert it back to string "0000" when writing it into <i>MasterAccountsFile.txt</i>