

```
In [1]: """
Read file into texts and calls.
It's ok if you don't understand how to read files
"""

from datetime import datetime

import csv
with open('texts.csv', 'r') as f:
    reader = csv.reader(f)
    texts = list(reader)

with open('calls.csv', 'r') as f:
    reader = csv.reader(f)
    calls = list(reader)

"""
The call data (call.csv) has the following columns:
1: calling telephone number (string),
2: receiving telephone number (string),
3: start timestamp of telephone call (string),
4: duration of telephone call in seconds (string)
"""

"""
TASK 2: Which telephone number spent the longest time on the phone
during the period? Don't forget that time spent answering a call is
also time spent on the phone.
Print a message:
"<telephone number> spent the longest time, <total time> seconds, on the phone during
September 2016.".
"""

"""
Check if the phone call was made in the month of a specific year
format: #30-09-2016 21:22:13
"""

def getCallsByMonthYear(phoneCall, month, year):

    timestamp = phoneCall[2]
    dt = datetime.strptime(timestamp, '%d-%m-%Y %H:%M:%S')
    if(dt.year == year and dt.month == month):
        return True
    else:
        return False

"""
Add up the duration of all calls made
Save the data in a dictionary
"""

def trackCallDuration(dictionary, phoneNumber, callDuration):
    if(dictionary.get(phoneNumber) == None):
        dictionary[phoneNumber] = callDuration
    else:
        dictionary[phoneNumber] = int(
            dictionary.get(phoneNumber)) + int(callDuration)
    return dictionary

"""
Get all the phone calls made during September 2016
"""
records = filter(lambda x: getCallsByMonthYear(x, 9, 2016), calls)

"""
Track the duration of the september calls that were made
"""
dictionary = {}
for record in records:
    outgoingNumber = record[0]
    recievingNumber = record[1]
    timestamp = record[2]
    callDuration = record[3]

    dictionary = trackCallDuration(dictionary, outgoingNumber, callDuration)
    dictionary = trackCallDuration(dictionary, recievingNumber, callDuration)

"""
Get the details for the phone number that spent the longest time spent on the phone during s
eptember 2016
"""
phoneMax = max(dictionary.items(), key=lambda x: int(x[1]))

# print(len(list(records)))
# print(phoneMax);

print(f"{phoneMax[0]} spent the longest time, {phoneMax[1]} seconds, on the phone during Sep
tember 2016.")
```

(080)33251027 spent the longest time, 90456 seconds, on the phone during September 2016.