CSE 8A Programming Assignment 3

Name should be formatted as (last, first)
If you are working solo you may leave the right column blank.

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Part 1 Code:

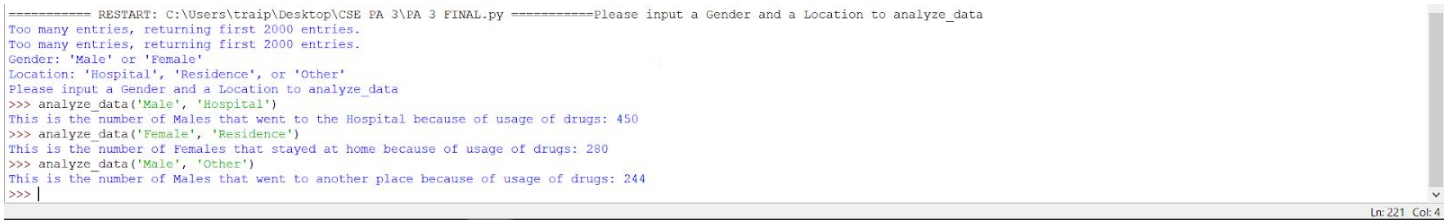
```
import csv
def ingest_data(filename, fieldname):
    file_object = open(filename, newline='')
    rows = csv.reader(file_object, delimiter=',')
    headers = next(rows)
    try:
        field_idx = headers.index(fieldname)
    except ValueError:
        print('The field name', fieldname, 'does not exist in the headers.')
        print('Here are the value field names in this file:')
        for h in headers:
            print(h)
        return
    data_list = []
    count = 0
    limit = 2000 # CHANGE LIMIT
    for line in rows:
        if (count >= limit):
            print('Too many entries, returning first', limit, 'entries.')
            return data_list
        try:
            field_value = line[field_idx]
        except IndexError:
            print('Skipping row #', count, 'because field does not exist')
            continue
        data_list.append(field_value)
        count = count + 1
    return data_list
#Ingest data code ends here
Gender = ingest_data("data.csv", "Sex")
Location = ingest_data("data.csv", "Location")
```

```
num_hospital = Location.count("Hospital")
num_residence = Location.count("Residence")
num_other = Location.count("Other")

num_males = Gender.count('Male')
num_females = Gender.count('Female')
i= 0


#This defines the function analyze data
def analyze_data(g, l):


    Total_num_males_hospital = 0
    Total_num_males_residence = 0
    Total_num_males_other = 0
    Total_num_females_hospital = 0
    Total_num_females_residence = 0
    Total_num_females_other = 0

#This loop goes over the lists and would total up the amount after the limit of
2000
    for i in range(2000):
        if Gender[i] == ('Male') and Location[i] == ('Hospital'):
            Total_num_males_hospital += 1

        elif Gender[i] ==('Male') and Location[i] == ('Residence'):
            Total_num_males_residence += 1

        elif Gender[i] == ('Male') and Location[i] == ('Other'):
            Total_num_males_other += 1


        elif Gender[i] == ('Female') and Location[i] == ('Hospital'):
            Total_num_females_hospital += 1


        elif Gender[i] ==('Female') and Location[i] == ('Residence'):
            Total_num_females_residence += 1


        elif Gender[i] == ('Female') and Location[i] == ('Other'):
            Total_num_females_other += 1




#This returns the value from the loops
```

```
    if g == "Male" and l == "Hospital" :
        return(print("This is the number of Males that went to the Hospital
because of usage of drugs:", Total_num_males_hospital))
    elif g =="Male" and l == "Residence" :
        return(print("This is the number of Males that stayed at home because
of usage of drugs:", Total_num_males_residence))
    elif g =="Male" and l == "Other" :
        return(print("This is the number of Males that went to another place
because of usage of drugs:", Total_num_males_other))
    elif g =="Female" and l == "Residence" :
        return(print("This is the number of Females that stayed at home because
of usage of drugs:", Total_num_females_residence))
    elif g =="Female" and l == "Other" :
        return(print("This is the number of Females that went to another place
because of usage of drugs:", Total_num_females_other))
    elif g =="Female" and l == "Hospital" :
        return(print("This is the number of Females that went to the hospital
because of usage of drugs:", Total_num_females_hospital))
    else:
        return("Improper Input, try again")


print("Gender: 'Male' or 'Female'")
print("Location: 'Hospital', 'Residence', or 'Other'")
print("Please input a Gender and a Location to analyze_data")



# Copy and paste ALL of your program's code (including comments!) here
# Make sure to set the font to Courier New
# IMPORTANT: Make sure your code is properly formatted. Code that does not have
   correct indentation will lose marks.
```

Part 2 Tests:

2.1 Include the result of calling your analyze_data function with three different inputs. For each, show the line of code that makes the function call. Explain why you chose that input and how you know the test is correct.



```
    if g == "Male" and l == "Hospital" :
        return(print("This is the number of Males that went to the Hospital because of usage of drugs:", Total_num_males_hospital))
    elif g =="Male" and l == "Residence" :
        return(print("This is the number of Males that stayed at home because of usage of drugs:", Total_num_males_residence))
    elif g =="Male" and l == "Other" :
        return(print("This is the number of Males that went to another place because of usage of drugs:", Total_num_males_other))
    elif g =="Female" and l == "Residence" :
        return(print("This is the number of Females that stayed at home because of usage of drugs:", Total_num_females_residence))
    elif g =="Female" and l == "Other" :
        return(print("This is the number of Females that went to another place because of usage of drugs:", Total_num_females_other))
    elif g =="Female" and l == "Hospital" :
        return(print("This is the number of Females that went to the hospital because of usage of drugs:", Total_num_females_hospital))
    else:
        return("Improper Input, try again")


print("Gender: 'Male' or 'Female'")
print("Location: 'Hospital', 'Residence', or 'Other'")
print("Please input a Gender and a Location to analyze_data")
```

Ln: 54 Col: 25

*2.2.1 Show the result of running your full program **once**.*

```
========== RESTART: C:\Users\traip\Desktop\CSE PA 3\PA 3 FINAL.py ==========Please input a Gender and a Location to analyze_data
Too many entries, returning first 2000 entries.
Too many entries, returning first 2000 entries.
Gender: 'Male' or 'Female'
Location: 'Hospital', 'Residence', or 'Other'
Please input a Gender and a Location to analyze_data
>>> analyze_data('Male', 'Hospital')
This is the number of Males that went to the Hospital because of usage of drugs: 450
>>>
```

Ln: 217 Col: 4

2.2.2 Explain what data is in the data set you chose, what the program is calculating, and explain why the answer the program produces is correct.

The data that is in the set of data that I chose is the gender of the people who went to different location when they were using drugs. These people were either Male or Female and they either went to the hospital, residence, or other places. The answer to the program is produced correctly because the program was able to calculate the specific amount of people that went to the specific location.

Known Bugs or Issues:

If you have known bugs or issues with your code, let us know here. If you think it works correctly, justify why.
This code works perfectly because it was able to do what it was supposed to do which was to calculate the number/amount of people who went to specific places. There were little errors here and there but it was fixed in the end.