**Python Data Science Project (crime rate data for 73 cities in the United States)**

# open file named "crime\_rates.csv"

f = open("crime\_rates.csv", "r")

#read file f

data = f.read()

#split data on the new-line character "\n" and printing the first 5 elements

rows = data.split('\n')

print(rows[0:5])

#using for loop to print the first 10 elements

ten\_rows = rows[0:10]

for row in ten\_rows:

print(row)

#list of list

final\_data = []

for row in rows:

split\_list = row.split(',')

final\_data.append(split\_list)

print(final\_data[0:5])

#list of string element

cities\_list = []

for outer\_list in final\_data:

city = outer\_list[0]

cities\_list.append(city)

#Creating a list of integers named int\_crime\_rates that contains just the crime rates - as integers - from the list rows.

f = open('crime\_rates.csv', 'r')

data = f.read()

rows = data.split('\n')

print(rows[0:5])

int\_crime\_rates = []

rowslist (<class 'list'>)

['Albuquerque,749', 'Anaheim,371', 'Anchorage,828', 'Arlington,503', 'Atlanta,1379', 'Aurora,425', 'Austin,408', 'Bakersfield,542', 'Baltimore,1405', 'Boston,835', 'Buffalo,1288', 'Charlotte-Mecklenburg,647', 'Cincinnati,974', 'Cleveland,1383', 'Colorado Springs,455', 'Corpus Christi,658', 'Dallas,675', 'Denver,615', 'Detroit,2122', 'El Paso,423', 'Fort Wayne,362', 'Fort Worth,587', 'Fresno,543', 'Greensboro,563', 'Henderson,168', 'Houston,992', 'Indianapolis,1185', 'Jacksonville,617', 'Jersey City,734', 'Kansas City,1263', 'Las Vegas,784', 'Lexington,352', 'Lincoln,397', 'Long Beach,575', 'Los Angeles,481', 'Louisville Metro,598', 'Memphis,1750', 'Mesa,399', 'Miami,1172', 'Milwaukee,1294', 'Minneapolis,992', 'Mobile,522', 'Nashville,1216', 'New Orleans,815', 'New York,639', 'Newark,1154', 'Oakland,1993', 'Oklahoma City,919', 'Omaha,594', 'Philadelphia,1160', 'Phoenix,636', 'Pittsburgh,752', 'Plano,130', 'Portland,517', 'Raleigh,423', 'Riverside,443', 'Sacramento,738', 'San Antonio,503', 'San Diego,413', 'San Francisco,704', 'San Jose,363', 'Santa Ana,401', 'Seattle,597', 'St. Louis,1776', 'St. Paul,722', 'Stockton,1548', 'Tampa,616', 'Toledo,1171', 'Tucson,724', 'Tulsa,990', 'Virginia Beach,169', 'Washington,1177', 'Wichita,742']

for row in rows:

values = row.split(',')

 valueslist (<class 'list'>)

['Wichita', '742']

crime\_rate = int(values[1])

 crime\_rateint (<class 'int'>)

742

int\_crime\_rates.append(crime\_rate)

int\_crime\_rateslist (<class 'list'>)

[749, 371, 828, 503, 1379, 425, 408, 542, 1405, 835, 1288, 647, 974, 1383, 455, 658, 675, 615, 2122, 423, 362, 587, 543, 563, 168, 992, 1185, 617, 734, 1263, 784, 352, 397, 575, 481, 598, 1750, 399, 1172, 1294, 992, 522, 1216, 815, 639, 1154, 1993, 919, 594, 1160, 636, 752, 130, 517, 423, 443, 738, 503, 413, 704, 363, 401, 597, 1776, 722, 1548, 616, 1171, 724, 990, 169, 1177, 742]