

Testing Strategy EX02

Program Goal:

The goal is to compare the data extracted from 2 different csv files.

Testing Strategy:

The program is constructed to run in step-by-step process which are:

- *The code will open the file 1 using the built-in function in read-only mode as a text file.*
- *The code will read the file line-by-line using the readlines() function and print the required last 5 lines of the file.*
- *After printing the last 5 lines of the file, the code proceeds ahead to reading the required total usertype data and separately counting the total customers and subscribers as usertypes along with it, the code will calculate the percentage of number customers out of total number of usertype.*
- *A statement is printed using the print statement displaying the complete data that was collected and calculated according to the conditions.*
- *The statement prints that the this has n number of total usertype, along with number of customers are usertype and number of subscribers as usertype.*
- *similar to file 1, the program will open the 2nd file in read-only mode as text file.*
- *Using the line() function the program will skip the first line identifying it as header and count the first 5 lines after the header and print the statement containing data of first 5 lines of the file.*
- *Post that the program will sort the data in the file according to the condition and calculate the total number of usertype along with number of customers and subscribers as usertype in the file 2.*
- *Then the program will compare data captured from both the files and calculate the percent of customers out of total number of usertype.*
- *The program will print the data statement of second file accordingly. Along with the print statement based on the total number of usertype if "The first file is bigger than the second one."
else " The first file is smaller than the second file.*
- *The program will compare the percentage of usertype of both the files and print accordingly if "The first file has relatively more customers than the second one."
else "The first file has relatively less customers than the second file."*
- *Post the the program will process the collected and calculated data and based on that the print statement will be if There are more riders in winter compared to the number of riders during the spring." else "There are more riders in spring compared to the number of riders during the winter."*

On testing the program run, the expected output is:

These are the last five lines in the file:

336,2/29/16,2/29/16 22:57,2/29/16 23:03,437,Macon St & Nostrand Ave,40.68098339,-
73.95004798,289,Monroe St & Classon Ave,40.6845683,-73.95881081,23541,Subscriber,1987,2
494,2/29/16,2/29/16 22:59,2/29/16 23:07,385,E 55 St & 2 Ave,40.75797322,-
73.96603308,3140,1 Ave & E 78 St,40.77140426,-73.9535166,15185,Subscriber,1985,1
671,2/29/16,2/29/16 23:06,2/29/16 23:17,462,W 22 St & 10 Ave,40.74691959,-
74.00451887,380,W 4 St & 7 Ave S,40.73401143,-74.00293877,23488,Subscriber,1972,1
441,2/29/16,2/29/16 23:10,2/29/16 23:17,482,W 15 St & 7 Ave,40.73935542,-
73.99931783,347,Greenwich St & W Houston St,40.728846,-
74.008591,21067,Subscriber,1983,1
821,2/29/16,2/29/16 23:15,2/29/16 23:29,238,Bank St & Washington St,40.7361967,-
74.00859207,2008,Little West St & 1 Pl,40.70569254,-74.01677685,23821,Subscriber,1991,1

The file has 21350 lines. 1057 of them have "Customer" as usertype, 20293 have "Subscriber" as usertype. Customer are 4.950819672131147 % of the total.

These are the first five lines in the file:

128,4/1/16,4/1/16 0:00,4/1/16 0:02,3064,Myrtle Ave & Lewis Ave,40.69681963,-
73.93756926,3059,Pulaski St & Marcus Garvey Blvd,40.6933982,-
73.939877,17430,Subscriber,1986,1

1322,4/1/16,4/1/16 0:15,4/1/16 0:37,280,E 10 St & 5 Ave,40.73331967,-73.99510132,3142,1
Ave & E 62 St,40.7612274,-73.96094022,16592,Subscriber,1950,1

288,4/1/16,4/1/16 0:31,4/1/16 0:36,346,Bank St & Hudson St,40.73652889,-
74.00618026,470,W 20 St & 8 Ave,40.74345335,-74.00004031,14707,Customer,,0

1797,4/1/16,4/1/16 0:42,4/1/16 1:12,532,S 5 Pl & S 4 St,40.710451,-73.960876,161,LaGuardia
Pl & W 3 St,40.72917025,-73.99810231,23320,Subscriber,1979,2

316,4/1/16,4/1/16 0:43,4/1/16 0:48,304,Broadway & Battery Pl,40.70463334,-
74.01361706,3002,South End Ave & Liberty St,40.711512,-74.015756,15087,Subscriber,1986,1

The file has 44615 lines, of which 5841 have "Customer" as usertype, 38774 have "Subscriber" as usertype. Customer are 13.092009413874258 % of the total.

The first file is smaller than the second file.

The first file has relatively less customers than the second file.

There are more riders in spring compared to the number of riders during the winter.

*Run by Ashutosh Laxminarayan Gor
Thank You for using the tool :)*

Process finished with exit code 0