CS 115 - Introduction to Programming in Python

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| Lab Objectives: Functions,Files,Numpy,Pandas |

1. Write a program that meets the requirements below:

reading\_file() : This function takes no parameter for reading the file that contains the datas such as area, number of room and so on for two different countries. Afterwards, function assigns the datas to the array.

add\_new() : Function that takes the list and array that is created by reading\_file function as a parameters and add the list of house information to the array. Then, displays the updated version of an array.

finding\_city() : This function takes the array and the city as parameters. When user choose the city, this function shows only the houses that is in the city which is selected by user and returns its array.

total\_cost() : This function takes the array list as a parameter. Then, display the total cost of houses in its order. This function does not depend on the other. That’s what I mean is that if the other functions do not satisfied, this function always display the output.

writing\_file() : Function that takes the array that was created by reading\_file function. Then, it writes the array on a new file. The new file name is named house\_updated.txt.

Type the followings:

- Read the file that is ‘house\_rent.txt’ and store the data in an array,

- Enter an input to add a new house to show in the list, update the list as entered new input,

- Ask user to which city she/he is looking for houses and then, displays the houses which is wanted in one city by user,

- Take the array that contains every information, then add the order and total cost to a new array and display that array,

- Write the information about houses into a file that is named ‘house\_updated.txt’.

**SAMPLE RUN:**

Enter information that is stored in list about the house that you want to add (-1 for quit):-1

Enter a city the city you want to see houses for rent (0 = São Paulo, 1 = Rio de Janeiro):0

Enter information that is stored in list about the house that you want to add (-1 for quit):-1

Rentable Houses Information in São Paulo:

2478 0 50 2 1 1 7 acept not furnished R$240 R$950 R$40 R$13 R$1,243

2480 0 143 3 3 2 6 acept not furnished R$1,600 R$3,300 R$250 R$42 R$5,192

2489 0 55 1 1 1 1 not acept not furnished R$600 R$2,230 R$0 R$29 R$2,859

2498 0 46 2 1 1 3 acept not furnished R$250 R$970 R$42 R$13 R$1,275

2504 0 44 2 1 1 3 acept not furnished R$192 R$1,020 R$0 R$13 R$1,225

2505 0 43 1 1 1 13 acept furnished R$1,150 R$2,000 R$76 R$26 R$3,252

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The total cost of houses as order:

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6072 =>$12,990

6073 =>$7,277

6074 =>$1,408

6075 =>$1,585

6076 =>$3,768

6077 =>$1,255

6078 =>$3,803

6079 =>$2,414