

Please read the following instructions carefully

Steps

1. Download the provided code file
2. Rename the first_last.py file to have your first and last names.
3. Open the file you just renamed and add your name and id inside as strings as in the below figure

```
10
11
12 # write your full name
13 NAME = "Ahmed Ali"
14 # write your id
15 ID = "22-101010"
16
17
```

4. Start coding.
5. Only submit the .py file

Task

Your task is to implement a phonebook where the user can add, update, delete, and search for contact information. The user can also load and save the data, from and to a file.

```
Welcome to Ahmed Ali's phonebook app
-----
Press e to exit
Press a to add a contact
Press d to delete a contact
Press s to save data to file
Press l to load data from file
Press v to view all your contacts
Press f to find the phone number of a given name
Press u to update the phone number of a given name
Press h to show help message
> |
```

Provided code

To help you in making sure you are on the right track, I have a skeleton code where you only need to add the requested function.

Notice

- You must use a dictionary to implement your phonebook. A phonebook is a dictionary where the key is the name and the value is the number.
- If you are using an online compiler, you might need to get rid of the red_font() function

Functions to implement

1)

(1pt)

```
def load(filename):
```

takes a file name and returns a dictionary where keys are names and values are phone numbers. The data in the file is saved as follows: each row has information about one contact info: name, number

If the provided file name doesn't exist, the exception should be handled and an error message is displayed.

```
1  ahmed ali, 01002271982
2  mahmoud samir, 01119237865
3  hend ibrahim, 01583637653
4  malak sami, 01112223333
5  malak mostafa, 01212223442
6  sondos ali, 01001111111
7  fadi hadi, 01001235678
```

2)

(0.5pts)

```
def save(phonebook, filename):
```

takes a phonebook dictionary and a filename and saves the data in the given file using the format specified. Make sure you save the correctly to be able to load them later.

3)

(0.5pts)

```
def add(phonebook):
```

add a new name and number to the dictionary. The user should input the needed values.

Notice that at this moment the new contact info is not saved to the file. It only exists in the dictionary. If the program is terminated at this moment, the record will not persist in the file.

You have to call the save function to make sure that the data is saved to the file.

```
> a
Insert name: Abdullah Said
Insert number: 01002225555
```

4)

(0.5pts)

```
def update(phonebook):
```

change the number of an existent name. If the name doesn't exist, the user is offered an option to add this new contact. If the name already existed, the user is asked to insert the updated number. You have to call the save function to make sure that the data is saved to the file.

```
> u
Insert name to update: ayman
Can't update a nonexistent name.
Would you like to add ayman to your phonebook?(y/n): y
Insert number: 01100022332
```

5)

(0.5pts)

```
def find(phonebook):
```

show the number of a given name if it exists.

```
> f
Insert name to find: ayman
Number: 01100022332
> f
Insert name to find: hamdi
Can't find hamdi in the phonebook.
```

6) (0.5pts)

```
def delete(phonebook):
```

delete the contact info of some name if it exists.

```
> d
Insert name to delete: fathi
Can't delete a nonexistent name.
> d
Insert name to delete: ayman
ayman deleted successfully.
```

7) (0.5pts)

```
def view(phonebook):
```

display all contact info in some format.

```
> v
ahmed ali      : 01002271982
mahmoud samir  : 01119237865
hend ibrahim   : 01583637653
malak sami     : 01112223333
malak mostafa  : 01212223442
sondos ali     : 01001111111
fadi hadi      : 01001235678
abdullah said  : 01002225555
```