Sample 1 Use a Python to create a phone book. The person that is asking for this is thinking to use the winner to develop a real product. For that reason the prototype must be developed using Object Oriented Programming to facilitate further development. The code must provide at least a class that allows the creation of phone book objects and a class that allows to create contact objects.

The class for creating contacts objects must be named Contact and must allow to store at leas the following: First name, Last name, Phone number, and Address.

The class for creating phone book objects must allow the following:

- Store the contacts in the phone book
- Add a new contact to the phone book
- Delete a arbitrary contact from the phone book. This means given the possibility to user to select and verify what contact it wants to delete
- Check if a contact exist in the phone book using any of the four mandatory instance variables that a contact must have
- Update the information of a contact in the phone book. Think of a contact changing phone number of address
- Give the option to list the contacts in the phone book ordered first name or last name
- Check if a specific contact has been duplicated in your phone book and make sure to eliminate that duplicate
- Check if there are two contacts with the same phone number

You must provide a testing program for testing the classes that provides a menu with options to try all the functionalities of the phone book. Look at the file account test provided in canvas for an example of what it is requested as a testing program with a menu.

Finally, you have to provide a report showing the implementation process of your program that must include specifications about any assumption made that allows to clarify your understanding of the problem and design. To ensure quality and correctness of the program, the client wants pseudo code for the algorithms used in your program without needing to read the whole code. It must be clear what is the purpose of the algorithm, inputs and outputs and the place where it is found in your implementation.