**Book Address**

***Project Design***

**Secondary Functions:**

* **format\_name(string name) 🡪 Format a string name passed into a title where first character is uppercase and the rest lowercase**
* **format\_phone(string phone) 🡪 Format a string phone passed into (xxx)xxx-xxxx**
* **format\_ssn(string ssn) 🡪 Format a string SSN passed into xxx-xx-xxxx**
* **show\_table(list data\_list) 🡪 Format the list of List into a table with rows and columns**
* **close\_program(list data\_list) 🡪 Open file in a WRITE mode, where deletes the data in the file and paste the data from the List data\_list to the file**
* **update\_table( ) 🡪 Search the row and update its column**
* **search\_in\_table 🡪 Search the user input in the table, check if the user input is located in each row. Return a boolean True if founded, otherwise False**

**Main Functions:**

* **addEntry() 🡪 Function to display the Add Entries Menu**
* **updateEntry() 🡪 Function to display the Update Entries Menu**
* **deleteEntry() 🡪 Function to display the Delete Entries Menu**
* **lookEntry() 🡪 Function to display the Search Entries Menu**
* **programInfo() 🡪 Function to display the Programmer Information**
* Print Welcome
* While True loop to display table
  + Ask the user to display the table
  + If customer say Yes
    - Show table
    - break
  + Else If customer say No
    - break
  + Else
    - Ask user to re-enter again Y or N
    - Continue to loop again
* End While-loop
* While True the menu choice
  + Show the user the menu: 1. Add entry, 2. Update Entry, 3. Delete Entry, 4. Look Entry, 5. Quit
  + If user choose 1. Add Entry
    - Call addEntry() 🡪 when this function returns False, BREAK
  + If user choose 2. Update Entry
    - Call updateEntry() 🡪 when this function returns False, BREAK
  + If user choose 3. Delete Entry
    - Call deleteEntry() 🡪 when this function returns False, BREAK
  + If user choose 4. Search Entry
    - Call lookEntry() 🡪 when this function returns False, BREAK
  + If user choose 5. Quit
    - Call show\_table(), close\_program(), programInfo()
  + Else:
    - Ask user to re-enter number 1-5. Continue next loop

***Early Submission Current Progress:***

I have completed writing the main part of the program, such as main functions and secondary functions that will help the menu flows well. However, there are still main functions left that needs to be done. I haven’t done them yet because of matter of time, but I will definitely do it this incoming week. The user interface for this program was easy to code at first hand by only using print(), and input(), and while loops, yet the secondary functions were the challenges one because they are actually the main algorithm that make this program work. I was able to complete the update() secondary function which first search the user entry to look and compare to the dataList if this data appears in the table. Once the data appears in a certain row, so I access and update any column from this row. I think this function was the hardest one for the whole program and I was able to make it done. On the other hand, I also coded secondary functions, such as formatting names, formatting phone numbers, and Social Security Numbers, which were not hard at all by using the f-string format built-in function from the String class. Finally, I still need to do more main functions for the main Menu like addEntry(), deleleEntry(), and lookEntry() functions . Overall, it was fun to code this program so far.

***Assumptions***

* The user will choose ‘Y’ or ‘N’ when asked for displaying table. If the user enters “Yes” “yes” “nO” “noo”, the program will always take the first character of the input and convert it to uppercase to get either ‘Y’ or ‘N’. If this is not the case, ask the user to re-enter a valid answer.
* The user will choose between 1-5 when asked for a choice. If the user enters a number out of range. The program will prompt to re-enter again and will show the menu again. However, if the user input is other than a number, the program will prompt an error message and will show the menu again
* When user choose option 1. Search by name, the program will ask user to re-enter the name to be search if such data is not found in the file.
* Same when user choose option 2. Search Phone number, the program will ask user to re-enter the phone number to be search if such data is not found in the file.
* The program will ask user if wants to repeat the menu. If yes, repeats. If not, quit. If answer other than that, the program will prompt an error message to re-enter again an asnswer.

***Test Cases and Screenshots***

Text

Description automatically generated with medium confidence

Text

Description automatically generated

Table, Excel

Description automatically generated