**Name:** Dipesh Mohanty

**Student Number:** 300312600

**Email:** [dmoha006@uottawa.ca](mailto:dmoha006@uottawa.ca)

**Full Stack Cloud Development – Assignment 1 Report**

**File Structure:**

**Classes:**

* phonebook.py
* contact.py

**Main Script:**

* main.py

**CSVs used to import or delete contacts:**

* contacts\_1\_delete.csv
* contacts\_1.csv
* contacts\_to\_delete.csv
* contacts.csv

**Docs:**

* README
* todo.txt

**Running the script:**

To run the program just run the “python main.py” command in your CMD

**Features Implemented:**

1. View all contacts – Takes in the contact list as an argument and displays all the contacts
2. Add a contact – This feature allows users to create a single new contact with form validation. When the user enters all the information and it passes the validation, a new instance of the contact class is created and added to the contacts list of the phone book class
3. Import contacts from a CSV file – This feature allows users to import multiple contacts from a CSV file as long as the data is correct. To use this feature, either enter the csv filename (if the csv exists in the same directory). If it does not, please enter the full directory name. For example: ‘C:/directory/to/filename.csv’. “contacts.csv” or “contacts\_1” can be used to test the same. “contacts\_1.csv” has refined data. A screenshot of a computer error

   Description automatically generated
4. Search for contacts by providing name or a phone number – Feature to search for contacts using partial or full names or phone numbers. To do this “\_\_contains\_\_” list method was used to filter the list and display the results A screenshot of a computer

   Description automatically generated
5. Delete a single contact – This feature is a combination of the “search contacts” and “”delete contact” method. First the user is prompted to search for the contact to be deleted and then the user is prompted to enter the ID of the contact to be deleted. Using the ID, the “pop” method of the list is used to remove the focused contact
6. Delete multiple contacts via a CSV file – This feature is similar to creating contacts through a CSV. User will have to enter the filename or full directory name. To delete multiple contacts, a unique ID (which is the first letter of the first name and last name and last 4 digits of the phone number). The same pattern is scanned in the phonebook and if there is a match then the contact is deleted else it will be ignored. This also ensures that multiple contacts with the same name is not deleted. “contacts\_to\_delete.csv” or “contacts\_1\_delete” can be used to test the same. Use “contacts\_to\_delete.csv” to delete some of the contacts from “contacts.csv” file and “contacts\_1\_delete.csv” to delete contacts from “contacts\_1.csv”
7. Display phone book history – Every time any CRUD application is utilized in the phonebook class, the “logs” list of the phonebook class is appended with the information A screenshot of a computer

   Description automatically generated
8. search for contacts created within a timeframe – User will have to input the start time and the end time STRCITLY in HH:MM:SS format. This will return all contacts created within the given timeframe A screenshot of a computer

   Description automatically generated
9. sort contacts by the first or last name – User can sort the contacts of the phonebook by their last or first name. This utilizes the “sort” method of the list and customizing the sort by passing a “key” A screen shot of a computer code

   Description automatically generated
10. update a contact –User first searches the ID of the contact to be updated and then is prompted to update each field of the contact. If the user does not want to update the field, it can be skipped. The update is performed with a simple reassignment. Even an audit log for that contact is entered A screen shot of a computer code

    Description automatically generated
11. view the update history of a contact –Everytime a contact is updated, the “audit” list attribute of the contact is updated with a new entry delineating the fields that were update for that contact. Before that, user is prompted to search for the contact ID A screen shot of a computer

    Description automatically generated
12. group contacts by first or last name –Using a dictionary, each contact’s indices in the contact list having the same first or last name is recorded and accordingly displayed to the user A black background with many small white lines

    Description automatically generated with medium confidence

**NOTE:** Whenever you receive such a message: 

If you want to retry, hit any button and press ENTER or directly hit ENTER to skip or return to the main menu

**If there are any questions or doubts or anything that might have been missed. Please do email me.**