

Programming Project / C++

- Phone book system-

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I. Task Description

Application one is responsible for:

- Adding, deleting and modifying contacts
- Viewing contacts
- Searching for contacts with a specific field

Application two is responsible for:

- Adding and deleting blocked contacts
- Viewing blocked contacts
- Removing blocked phone numbers from contacts

II. Data Structures Used:

The following classes will be used:

- Contact: string phone, string label, string company, string email, string additional
- Blocked: string phone
- Blocked_list: blocked_node* start, blocked_node* end, int size
- Blocked_node: blocked_node* next, blocked number
- Contact_list: contact_node* start, contact_node* end, int size
- Contact_node: contact Cont, contact_node* next

III. File Structure:

The following files will be used:

- contacts.csv

A file where all contacts and their contact information will be stored in the form:

<phone number>, <label>, <company>, <email>, <additional>
<phone number>, <label>, <company>, <email>, <additional>
<phone number>, <label>, <company>, <email>, <additional>
...

Each line represents a different contact.

- blocked.csv

A file where all blocked phone numbers will be stored in the form:

<phone number1>, <phone number2>, <phone number3>, <phone number4>, ...

Each phone number separated by a comma represents a blocked phone number.

IV. Interacting with Executables

Application 1 will offer the following options:

`./contacts.exe view_contacts`

To view all contacts that are saved

`./contacts.exe add_contact <phone number>, <label>, <company>, <email>, <additional>`

To add a new contact to the list

`./contacts.exe delete_contact <list index>`

To delete a contact that is on the specified list index

`./contacts.exe modify_contact <list index> <phone number>, <label>, <company>, <email>, <additional>`

To modify an existing contact on the list on the specific index

`./contacts.exe search_contacts <field> <input>`

To search for a specific contact with a specific field

Application 2 will offer the following options:

`./blocked.exe block_contact <phone number>`

To block a specific number

`./blocked.exe view_blocked`

To view all blocked contacts

`./blocked.exe unblock_contact <list index>`

To unblock a specific contact on the list index

`./blocked.exe remove_blocked_from_contacts`

To remove any contact that their phone number blocked