



Phone Book Manager in C

Group 11

A command-line based Phone Book Manager written in C. This application enables users to manage contacts by adding, editing, deleting, searching, and viewing them in a sorted list. It uses in-memory data storage with simple input validation.



Team Members

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How to Clone the Project

To get a local copy of the project, run the following command in your terminal:

```
git clone https://github.com/Aditi-Barman/Phonebook.git
cd Phone-Book-Manager
```



Project Structure

- `phonebook.c` – Main C source file
- `README.md` – Project documentation



Features

- Add new contacts with name and phone number
- Edit existing contacts
- Delete contacts by name
- Search contacts (partial name match)
- View all contacts sorted alphabetically by name
- Validates phone numbers (only digits, max 10 digits)
- Handles up to 100 contacts using a static array



Data Structures Used

```
typedef struct {  
    char name[MAX_NAME_LENGTH];  
    char phone[MAX_PHONE_LENGTH];  
} Contact;
```

- Uses a global array of `Contact` structures
- Contact name: up to 49 characters
- Phone number: up to 10 digits



Sample Interaction

Phone Book Application

1. Add Contact
2. Delete Contact
3. Edit Contact
4. View Contacts (Sorted)
5. Search Contact
6. Exit

Enter your choice: 1

Enter name: Aditi

Enter phone number (up to 10 digits): 9876543210

Contact added successfully!

Compilation & Execution

Compile:

```
gcc phonebook.c -o phonebook
```

Run:

```
./phonebook
```

Input Validation

- Phone numbers must:
 - Contain only digits (0-9)
 - Be no longer than 10 digits
- Names can contain any characters but are case-sensitive during search/edit/delete

Possible Enhancements

- File-based data persistence
- Case-insensitive search
- Contact grouping or categorization
- GUI version using libraries like GTK

License

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