Group 18 Documentation

Phonebook application

Section A: Algorithms representation of the different modules/functions(pseudocode/flowcharts)

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Section A .1 Design the algorithim

Application Modules:

1. Contact Module : Insert, Update, Delete, and Search Contacts.
2. Display Module : Display all contacts.
3. Sorting Module : For faster searches.
4. Efficiency Analysis Module: To analyze the performance of the search algorithm.

1. LOGIC REPRESENTATION OF CONTACT MODULE

1.1 INSERT CONTACTS -Adds a new contact to the phonebook, ensuring that no duplicate entries are created and that the phonebook has space for new contacts.

1.2 SEARCH CONTACTS -Allows users to find a contact by their name and retrieve their phone number.

1.3 DELETE CONTACTS -Removes a contact from the phonebook based on their name.

1.5 UPDATE CONTACTS -Modifies the phone number of an existing contact.

2. LOGIC REPRESENTATION OF DISPLAY MODULE

2.1 DISPLAY ALL CONTACTS -Shows a list of all contacts currently in the phonebook.

3. LOGIC REPRESENTATION OF SORTING MODULE

3.1 SORT CONTACTS -Arranges the contacts in alphabetical order by name to make searching faster

4. LOGIC REPRESENTATION OF ANALYSING MODULE

4.1 ANALYZE EFFICIENCY -Measures how long it takes to search for a contact, helping to understand the performance of the search operation.