ABSTRACT

Title: Linear Searching to Find a Number in Contact List

Aim: To implement and demonstrate the linear search algorithm for finding a specific contact number in a contact list.

What is the problem? The problem is to efficiently locate a specific contact number within a potentially large list of contacts. This is a common task in various applications, such as phonebooks and contact management systems, where quick retrieval of contact information is essential.

Methodology used to get the solution:

1. **Input:** A list of contacts, each containing a name and a phone number.
2. **Process:** Implement the linear search algorithm, which involves iterating through the contact list sequentially and comparing each contact's phone number with the target number.
3. **Output:** The contact details if the number is found, or a message indicating that the number is not in the list.

Type of data structure and Language Used:

- **Data Structure:** Array (or List)
- **Language Used:** C

Operations performed in that particular data structure:

1. **Traversal:** Iterating through the contact list to access each contact.
2. **Comparison:** Comparing each contact's phone number with the target number.
3. **Retrieval:** Returning the contact details if a match is found.
4. **Output:** Displaying the result of the search operation.