

TASK # 01

“Contact Management System”

Overview:

The provided Java code implements a simple friend control device using a console-based interface. It allows users to add contacts, mark them as pals, remove contacts, show all contacts, show pals, look for a contact, and go out the gadget.

Features:

Key features of this program are mentioned below.

Contact Management:

- Users can add contacts, with an option to mark them as friends during the addition.
- Contacts can be removed, and the system provides feedback on the success or failure of the operation.

Display Functions:

- Users can display all contacts and specifically friends.
- The system handles cases where the contact list is empty.

Search Functionality:

- Users can search for a contact by name, and the system provides feedback on whether the contact was found or not.

Input Validation:

- Incorporates exception handling to manage input errors gracefully.
- Specifically catches `InputMismatchException` and `NoSuchElementException` for handling invalid inputs and missing input respectively.

Menu-Driven Interface:

- Presents a user-friendly menu for interaction.
- Allows users to input their choices and navigate through different functionalities.

Improvements:

- Validation and Error Handling
- The input validation could be further enhanced to handle more specific cases and provide detailed error messages.

Code Modularity:

- Consider breaking down the main method into smaller, more modular methods for better readability and maintainability.

Functionality/Output:

```
Menu:
1. Add a contact
2. Delete a contact
3. Display all contacts
4. Display friends
5. Search for a contact
6. Exit
Enter your choice: 1
Enter the name: john
Enter the phone number: +876463325
Do you want to add john to your friends? (yes/no): yes
john has been added to your contacts.
john has been added to your friends.

Menu:
1. Add a contact
2. Delete a contact
3. Display all contacts
4. Display friends
5. Search for a contact
6. Exit
Enter your choice: 2
Enter the name of the contact to remove: john
john has been removed from your contacts.
```

```
Menu:
1. Add a contact
2. Delete a contact
3. Display all contacts
4. Display friends
5. Search for a contact
6. Exit
Enter your choice: 3
Your contacts list is empty.

Menu:
1. Add a contact
2. Delete a contact
3. Display all contacts
4. Display friends
5. Search for a contact
6. Exit
Enter your choice: 4
You have no friends in your contacts.
```

```
Menu:
1. Add a contact
2. Delete a contact
3. Display all contacts
4. Display friends
5. Search for a contact
6. Exit
Enter your choice: 5
Enter the name to search for: john
Contact not found with name: john

Menu:
1. Add a contact
2. Delete a contact
3. Display all contacts
4. Display friends
5. Search for a contact
6. Exit
Enter your choice: 6
Exiting the Friend Management System. Goodbye!

Process finished with exit code 0
|
```