**Project 2**

Contact Book Application

**Objective:**

Create a contact book application where users can add, delete, and search for contacts. Utilize Python basics such as lists, loops, and conditional statements to create the application.

**Requirements:**

1. Use lists to store contact information, such as names, phone numbers, and email addresses.
2. Allow users to add, delete, and search for contacts.
3. Use conditional statements to search for specific contacts.
4. Use loops to display all contacts or iterate through the list for various operations.

**Instructions:**

1. Create a data structure to store contact information, including names, phone numbers, and email addresses.
2. Implement a menu-driven interface to allow users to choose between adding, deleting, searching for, or displaying all contacts.
3. To add a contact, allow users to input the contact's name, phone number, and email address. Store this information in the data structure.
4. To delete a contact, allow users to input the contact's name. Use a conditional statement to find the contact in the data structure and remove it.
5. To search for a contact, allow users to input the contact's name. Use a conditional statement to find and display the contact's information.
6. To display all contacts, use a loop to iterate through the data structure and print the contact information for each entry.

**Example:**

Menu:

1. Add Contact
2. Delete Contact
3. Search for Contact
4. Display All Contacts
5. Exit

Please choose an option (1-5):

contacts = []

while True:

    print("\n1) Add contact")

    print("2) Delete contact")

    print("3) Search contact")

    print("4) Display all contact")

    print("5) Exit")

    choice = int(input("Enter your choice = "))

    if choice == 1:

        name = input("Enter name = ")

        phone\_number = int(input("Enter phone number = "))

        email = input("Enter email = ")

        c = [name, phone\_number, email]

        contacts.append(c)

    elif choice == 2:

        name = input("Enter contact name to delete = ")

        for c in range(0, len(contacts)):

            if name == contacts[c][0]:

                del contacts[c]

    elif choice == 3:

        name = input("Enter contact name to delete = ")

        for c in range(0, len(contacts)):

            if name == contacts[c][0]:

                print(f"Name = {contacts[c][0]}")

                print(f"Mobile = {contacts[c][1]}")

                print(f"Email = {contacts[c][2]}")

    elif choice == 4:

        for c in range(0, len(contacts)):

            print(f"\nName = {contacts[c][0]}")

            print(f"Mobile = {contacts[c][1]}")

            print(f"Email = {contacts[c][2]}")

    elif choice == 5:

        break

    else:

        print("Invalid choice")