

```
import json

# Function to load contacts from a file
def load_contacts(filename):
    try:
        with open(filename, 'r') as file:
            return json.load(file)
    except FileNotFoundError:
        return []

# Function to save contacts to a file
def save_contacts(filename, contacts):
    with open(filename, 'w') as file:
        json.dump(contacts, file, indent=4)

# Function to add a new contact
def add_contact(contacts):
    name = input("Enter name: ")
    phone = input("Enter phone number: ")
    email = input("Enter email: ")
    address = input("Enter address: ")
    contacts.append({"name": name, "phone": phone, "email": email,
"address": address})
    print(f"Contact {name} added successfully.")

# Function to view all contacts
```

```
def view_contacts(contacts):
```

```
    if not contacts:
```

```
        print("No contacts to show.")
```

```
    else:
```

```
        for idx, contact in enumerate(contacts):
```

```
            print(f"{idx + 1}. Name: {contact['name']}, Phone:  
{contact['phone']}")
```

```
# Function to search for a contact by name or phone number
```

```
def search_contacts(contacts):
```

```
    query = input("Enter name or phone number to search: ")
```

```
    found_contacts = [contact for contact in contacts if query.lower()  
in contact['name'].lower() or query in contact['phone']]
```

```
    if found_contacts:
```

```
        for contact in found_contacts:
```

```
            print(f"Name: {contact['name']}, Phone: {contact['phone']},  
Email: {contact['email']}, Address: {contact['address']}")
```

```
    else:
```

```
        print("No contacts found.")
```

```
# Function to update a contact
```

```
def update_contact(contacts):
```

```
    query = input("Enter the name of the contact to update: ")
```

```
    for contact in contacts:
```

```
        if contact['name'].lower() == query.lower():
```

```
            contact['name'] = input(f"Enter new name (leave blank to  
keep '{contact['name']}'): ") or contact['name']
```

```
            contact['phone'] = input(f"Enter new phone number (leave  
blank to keep '{contact['phone']}'): ") or contact['phone']
```

```
        contact['email'] = input(f"Enter new email (leave blank to  
keep '{contact['email']}'): ") or contact['email']  
        contact['address'] = input(f"Enter new address (leave blank  
to keep '{contact['address']}'): ") or contact['address']  
        print("Contact updated successfully.")  
        return  
    print("Contact not found.")
```

# Function to delete a contact

```
def delete_contact(contacts):  
    query = input("Enter the name of the contact to delete: ")  
    for contact in contacts:  
        if contact['name'].lower() == query.lower():  
            contacts.remove(contact)  
            print(f"Contact {contact['name']} deleted successfully.")  
            return  
    print("Contact not found.")
```

def main():

```
    filename = "contacts.json"  
    contacts = load_contacts(filename)
```

while True:

```
    print("\nContact Book Application")  
    print("1. Add Contact")  
    print("2. View Contacts")  
    print("3. Search Contact")  
    print("4. Update Contact")
```

```
print("5. Delete Contact")
```

```
print("6. Exit")
```

```
choice = input("Enter your choice: ")
```

```
if choice == '1':
```

```
    add_contact(contacts)
```

```
elif choice == '2':
```

```
    view_contacts(contacts)
```

```
elif choice == '3':
```

```
    search_contacts(contacts)
```

```
elif choice == '4':
```

```
    update_contact(contacts)
```

```
elif choice == '5':
```

```
    delete_contact(contacts)
```

```
elif choice == '6':
```

```
    save_contacts(filename, contacts)
```

```
    print("Exiting the contact book. Goodbye!")
```

```
    break
```

```
else:
```

```
    print("Invalid choice. Please try again.")
```

```
if __name__ == "__main__":
```

```
    main()
```