

Contact Management System CMS code

```
import csv

contacts = {

    "John Doe": {
        "phone": "+1234567890",
        "email": "john@example.com",
        "address": "123 Main St",
        "group": "Friends"
    },
    "Jane Smith": {
        "phone": "+0987654321",
        "email": "jane@example.com",
        "address": "456 Oak Ave",
        "group": "Work"
    }
}

def add_contact():
    name = input("Enter name: ")
    phone = input("Enter phone: ")
    email = input("Enter email: ")
    address = input("Enter address: ")
    group = input("Enter group (Friends/Work/Family): ")

    contacts[name] = {
        "phone": phone,
        "email": email,
```

```
        "address": address,
        "group": group
    }
    print("Contact added successfully!")

def search_contact():
    keyword = input("Enter name to search: ").lower()
    results = []

    for name, details in contacts.items():
        if keyword in name.lower():
            results.append((name, details))

    if results:
        print(f"\nSearch Results for '{keyword}':")
        print("-" * 42)
        for i, (name, d) in enumerate(results, 1):
            print(f"{i}. {name}")
            print(f"  Phone: {d['phone']}")
            print(f"  Email: {d['email']}")
            print(f"  Address: {d['address']}")
            print(f"  Group: {d['group']}\n")
        print(f"Found {len(results)} contacts matching '{keyword}'")

    else:
        print("No contacts found.")

def update_contact():
    name = input("Enter contact name to update: ")
    if name in contacts:
```

```
contacts[name]["phone"] = input("New phone: ")  
contacts[name]["email"] = input("New email: ")  
contacts[name]["address"] = input("New address: ")  
contacts[name]["group"] = input("New group: ")  
print("Contact updated successfully!")  
  
else:  
    print("Contact not found.")
```

```
def delete_contact():  
    name = input("Enter contact name to delete: ")  
    if name in contacts:  
        del contacts[name]  
        print("Contact deleted successfully!")  
    else:  
        print("Contact not found.")
```

```
def view_all_contacts():  
    if not contacts:  
        print("No contacts available.")  
        return  
  
    for name, d in contacts.items():  
        print("-" * 30)  
        print(f"Name: {name}")  
        print(f"Phone: {d['phone']}")  
        print(f"Email: {d['email']}")  
        print(f"Address: {d['address']}")  
        print(f"Group: {d['group']}")
```

```
def export_to_csv():

    with open("contacts.csv", "w", newline="") as file:
        writer = csv.writer(file)
        writer.writerow(["Name", "Phone", "Email", "Address", "Group"])
        for name, d in contacts.items():
            writer.writerow([name, d["phone"], d["email"], d["address"], d["group"]])
    print("Contacts exported to contacts.csv")

def view_statistics():

    total = len(contacts)
    groups = {}

    for d in contacts.values():
        groups[d["group"]] = groups.get(d["group"], 0) + 1

    print("\nStatistics:")
    print(f"- Total Contacts: {total}")
    for group, count in groups.items():
        print(f"- {group}: {count} contacts")

def menu():

    while True:
        print("\n====")
        print("  CONTACT MANAGEMENT SYSTEM")
        print("====")
        print("1. Add New Contact")
        print("2. Search Contact")
        print("3. Update Contact")
```

```
print("4. Delete Contact")
print("5. View All Contacts")
print("6. Export to CSV")
print("7. View Statistics")
print("8. Exit")

choice = input("Enter your choice (1-8): ")

if choice == "1":
    add_contact()
elif choice == "2":
    search_contact()
elif choice == "3":
    update_contact()
elif choice == "4":
    delete_contact()
elif choice == "5":
    view_all_contacts()
elif choice == "6":
    export_to_csv()
elif choice == "7":
    view_statistics()
elif choice == "8":
    print("Exiting program. Goodbye!")
    break
else:
    print("Invalid choice. Please try again.")

if __name__ == "__main__":
    menu()
```