

# 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()
```