🩺medsys - Django Web Application Setup Guide (App: dhealth)

📦Requirements (Initial Setup)

Install the necessary dependencies:

```
pip install django
pip install channels
pip install daphne
```

Django: Main web framework\ **Channels**: Adds WebSocket support (used for live chat)\
Daphne: ASGI server required to handle asynchronous connections

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📁 Project Structure Overview

```
medsys/                 <-- Root folder
|
├── manage.py           <-- Django's command-line tool
|
├── medsys/             <-- Project-level configuration (settings, URLs)
│   ├── __init__.py
│   ├── settings.py     <-- Core settings (databases, apps, etc.)
│   ├── urls.py         <-- URL routing for project
│   ├── asgi.py         <-- ASGI config for Daphne & Channels
│   └── wsgi.py         <-- WSGI config (used by default server)
|
├── dhealth/            <-- Main application logic
│   ├── admin.py        <-- Admin interface configurations
│   ├── apps.py         <-- App configuration metadata
│   ├── models.py       <-- Database models for the app
│   ├── views.py        <-- Handles HTTP requests and responses
│   ├── urls.py         <-- URL patterns specific to the app
│   ├── consumers.py    <-- WebSocket consumers (for live chat)
|
├── static/             <-- Static files (CSS/JS)
├── templates/          <-- Global templates (HTML rendered to browser)
├── chatfiles/          <-- Stores uploaded images or PDFs shared in chat
└── db.sqlite3          <-- Default SQLite database
```

📩How to Run the Application

Step 1: Run the Django Development Server (for normal HTTP)

Navigate to the folder containing `manage.py`:

```
cd path/to/medsys/
python manage.py runserver
```

This will start the app at:\ `http://127.0.0.1:8000`

Admin login credentials:

```
Username: adminuser
Password: adminpass
```

Step 2: Run Daphne ASGI Server (for Live Chat)

To run the application with WebSocket/chat support:

```
$env:DJANGO_SETTINGS_MODULE = "medsys.settings"
daphne -p 8000 medsys.asgi:application
```

This runs the server with async capabilities.

> Note: Use only one server at a time (either runserver or Daphne).

Django Project in Simple Terms

- **medsys/** → Project controller: holds settings, URLs, ASGI config.
- **dhealth/** → Your main application logic:
- `admin.py` : Admin panel registration and customization.
- `apps.py` : Configuration and metadata for the app.
- `models.py` : Defines data structure and database schema.
- `views.py` : Controls logic for handling web requests.
- `urls.py` : Routes URLs to appropriate views.
- `consumers.py` : Handles WebSocket connections (e.g., chat).
- **templates/** → Global HTML files rendered to the browser.
- **static/** → CSS, JavaScript, images.
- **chatfiles/** → Stores images/PDFs shared during chat sessions.
- **manage.py** → The entry point to run commands like `runserver`, `migrate`, `createsuperuser`.
- **Daphne + Channels** → Required for features like live chat using WebSockets.