

Topic: Project Setup, Modern Admin Panel Part 1

Speaker: Udemy Instructor Destiny | **Notebook:** Health Management System Using Django



1. Create a new folder and a new environment. Activate it.

```
$ python -m venv venv
$ source venv/scripts/activate
$ pip freeze
$ pip install django
```

2. Create a new project: in this new folder.

```
$ django-admin startproject HMS_main.
```

3. Run the server:

```
$ python manage.py runserver
```

<http://localhost:8000/>

4. Open now a VS Code with this folder or type:

```
$ code .
```

* we have to use `PIP INSTALL DJANGO` again in VS Code's terminal.

```

Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ python -m venv venv

Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ venv\scripts\activate
bash: venvscriptsactivate: command not found

Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ source venv/scripts/activate
(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ pip install django
Collecting django
  Downloading Django-5.1.2-py3-none-any.whl.metadata (4.2 kB)
Collecting asgiref<4,>=3.8.1 (from django)
  Using cached asgiref-3.8.1-py3-none-any.whl.metadata (9.3 kB)
Collecting sqlparse>=0.3.1 (from django)
  Using cached sqlparse-0.5.1-py3-none-any.whl.metadata (3.9 kB)
Collecting tzdata (from django)
  Using cached tzdata-2024.2-py2.py3-none-any.whl.metadata (1.4 kB)
Downloading Django-5.1.2-py3-none-any.whl (8.3 MB)
----- 8.3/8.3 MB 19.7 MB/s eta 0:00:00
Using cached asgiref-3.8.1-py3-none-any.whl (23 kB)
Using cached sqlparse-0.5.1-py3-none-any.whl (44 kB)
Using cached tzdata-2024.2-py2.py3-none-any.whl (346 kB)
Installing collected packages: tzdata, sqlparse, asgiref, django
Successfully installed asgiref-3.8.1 django-5.1.2 sqlparse-0.5.1 tzdata-2024.2
(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ pip freeze
asgiref==3.8.1
Django==5.1.2
sqlparse==0.5.1
tzdata==2024.2
(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ django admin startproject HMS_main .
bash: django: command not found
(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ django-admin startproject HMS_main .
(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ python manage.py runserver
Watching for file changes with StatReloader
[12/Oct/2024 19:34:46] "GET / HTTP/1.1" 200 12068
Performing system checks...

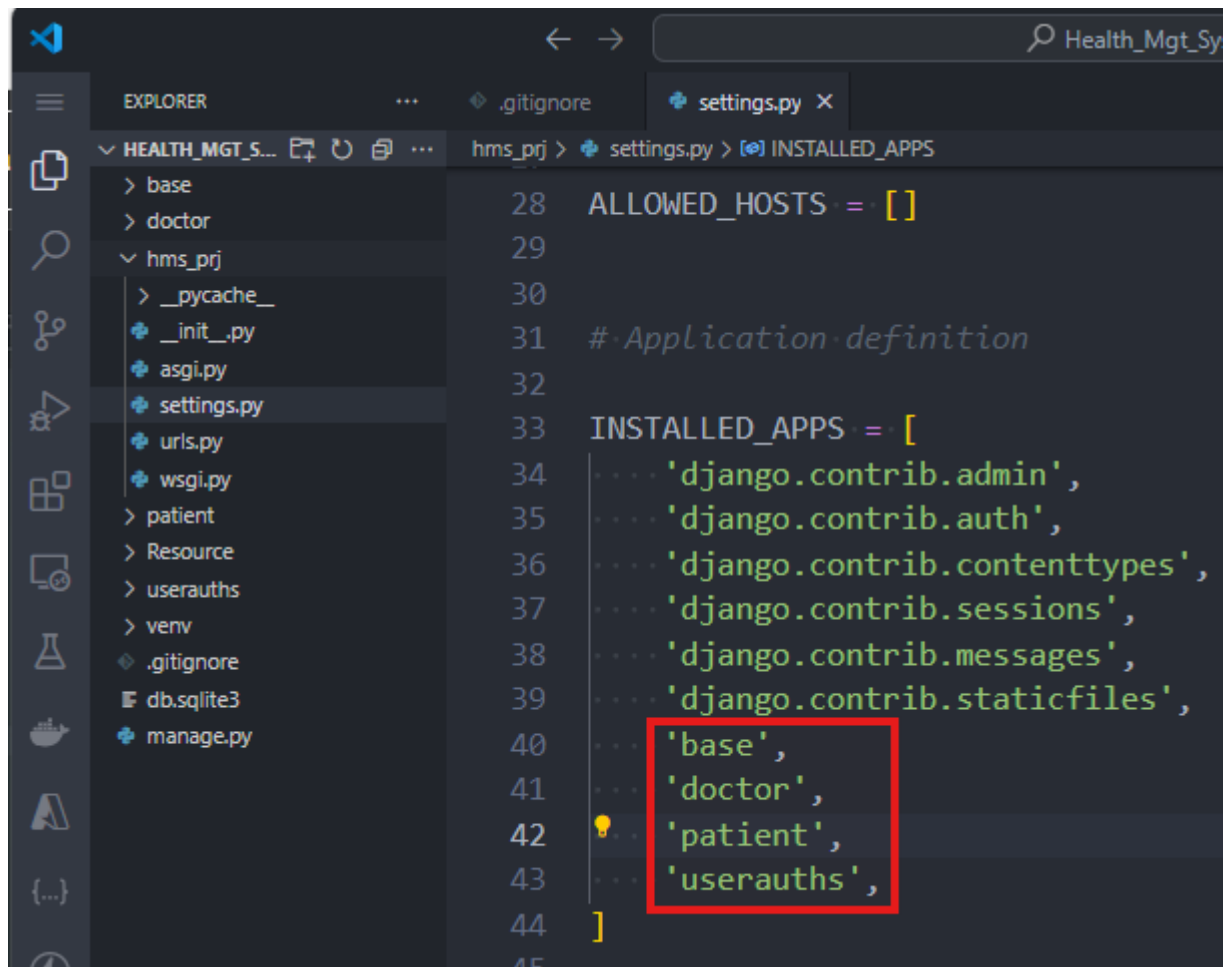
System check identified no issues (0 silenced).

You have 18 unapplied migration(s). Your project may not work properly until you
  apply the migrations for app(s): admin, auth, contenttypes, sessions.
Run 'python manage.py migrate' to apply them.
October 12, 2024 - 19:33:35
Django version 5.1.2, using settings 'HMS_main.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.

(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ code .|

```

```
$ python manage.py startapp base  
$ python manage.py startapp doctor  
$ python manage.py startapp patient  
$ python manage.py startapp userauths
```



The screenshot shows the Visual Studio Code editor with a project named 'Health_Mgt_Sy'. The Explorer sidebar on the left shows the project structure, including folders 'base', 'doctor', 'hms_prj', 'patient', 'Resource', 'userauths', and 'venv', and files like 'manage.py' and 'db.sqlite3'. The main editor window displays the 'settings.py' file. The code includes 'ALLOWED_HOSTS = []' and a comment '# Application definition'. The 'INSTALLED_APPS' list is defined as follows:

```
28 ALLOWED_HOSTS = []  
29  
30  
31 # Application definition  
32  
33 INSTALLED_APPS = [  
34     'django.contrib.admin',  
35     'django.contrib.auth',  
36     'django.contrib.contenttypes',  
37     'django.contrib.sessions',  
38     'django.contrib.messages',  
39     'django.contrib.staticfiles',  
40     'base',  
41     'doctor',  
42     'patient',  
43     'userauths',  
44 ]
```

The entries 'base', 'doctor', 'patient', and 'userauths' in the 'INSTALLED_APPS' list are highlighted with a red box.

6. Create a new folder, TEMPLATES and update our SETTINGS.PY.

This screenshot shows the Django settings.py file in a code editor. The left sidebar displays the project structure with 'templates' highlighted under the 'Resource' folder. The main editor shows the following configuration:

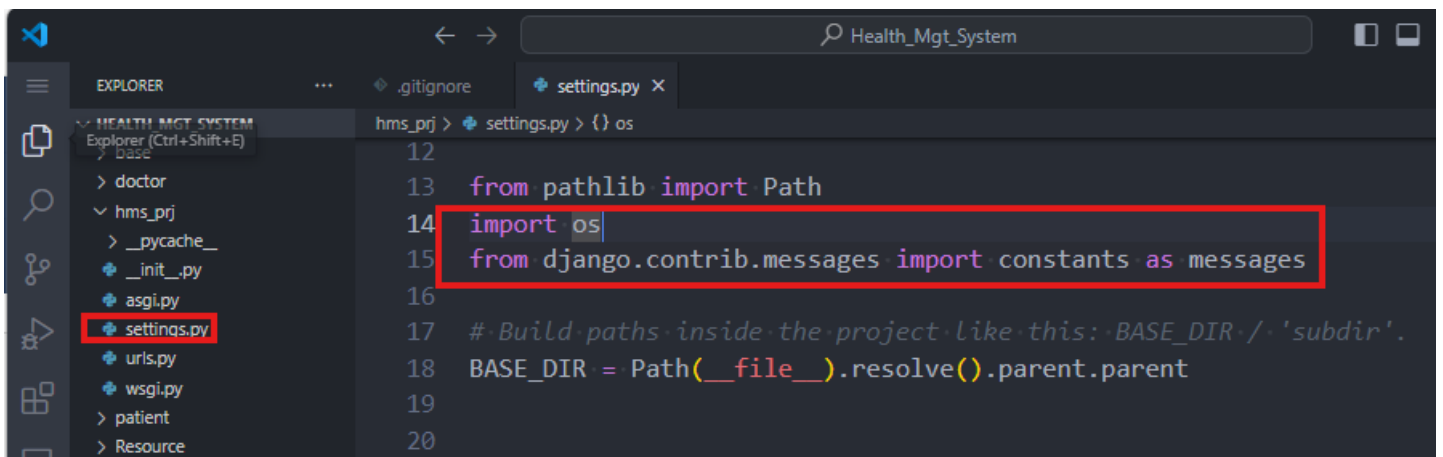
```
46 MIDDLEWARE = [  
53     'django.middleware.clickjacking.XFrameOptionsMiddleware',  
54 ]  
55  
56 ROOT_URLCONF = 'hms_prj.urls'  
57  
58 TEMPLATES = [  
59     {  
60         'BACKEND': 'django.template.backends.django.DjangoTemplates',  
61         'DIRS': [os.path.join(BASE_DIR, 'templates')],  
62         'APP_DIRS': True,  
63         'OPTIONS': {  
64             'context_processors': [  
65                 'django.template.context_processors.debug',  
66                 'django.template.context_processors.request',  
67                 'django.contrib.auth.context_processors.auth',  
68                 'django.contrib.messages.context_processors.messages',  
69             ],  
70         },  
71     },  
72 ]
```

7. Set up the STATIC AND MEDIA configurations.

This screenshot shows the Django settings.py file in a code editor, focusing on static and media file configurations. The left sidebar shows 'settings.py' highlighted under the 'Resource' folder. The main editor shows the following configuration:

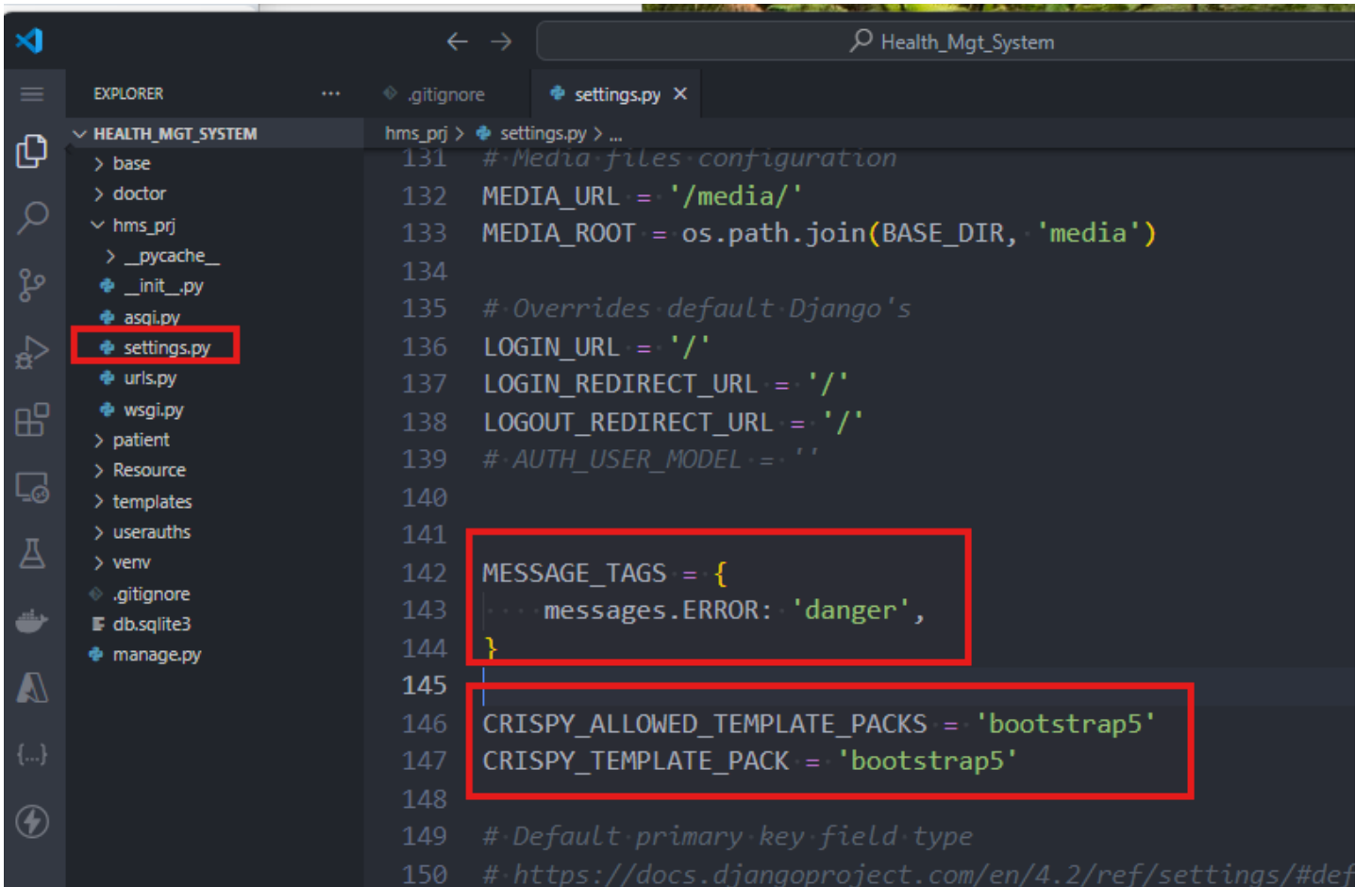
```
116 USE_TZ = True  
117  
118  
119 # Static files (CSS, JavaScript, Images)  
120 # https://docs.djangoproject.com/en/4.2/howto/static-files/  
121  
122 # Static files configuration  
123 STATIC_URL = 'static/'  
124 STATIC_ROOT = os.path.join(BASE_DIR, 'staticfiles')  
125 STATICFILES_DIRS = [  
126     os.path.join(BASE_DIR, 'static')  
127 ]  
128  
129 # Media files configuration  
130 MEDIA_URL = '/media/'  
131 MEDIA_ROOT = os.path.join(BASE_DIR, 'media')  
132
```

8. Update SETTINGS.PY to override default login/logout and user models:



```
12
13 from pathlib import Path
14 import os
15 from django.contrib.messages import constants as messages
16
17 # Build paths inside the project like this: BASE_DIR = Path(__file__).resolve().parent.parent
18 BASE_DIR = Path(__file__).resolve().parent.parent
19
20
```

9. For messages and forms configuration, update our SETTINGS.PY:



```
131 # Media files configuration
132 MEDIA_URL = '/media/'
133 MEDIA_ROOT = os.path.join(BASE_DIR, 'media')
134
135 # Overrides default Django's
136 LOGIN_URL = '/'
137 LOGIN_REDIRECT_URL = '/'
138 LOGOUT_REDIRECT_URL = '/'
139 # AUTH_USER_MODEL =
140
141
142 MESSAGE_TAGS = {
143     messages.ERROR: 'danger',
144 }
145
146 CRISPY_ALLOWED_TEMPLATE_PACKS = 'bootstrap5'
147 CRISPY_TEMPLATE_PACK = 'bootstrap5'
148
149 # Default primary key field type
150 # https://docs.djangoproject.com/en/4.2/ref/settings/#def
```

10. Update our project URLS.PY to include the path to our static and media files:

```
11 1. Add an import: from other_app.views import Home
12 2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
13 Including another URLconf
14 1. Import the include() function: from django.urls import include, path
15 2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
16
17 from django.contrib import admin
18 from django.urls import path
19 from django.conf import settings
20 from django.conf.urls.static import static
21
22 urlpatterns = [
23     path('admin/', admin.site.urls),
24 ]
25
26 urlpatterns += static(settings.MEDIA_URL, document_root=settings.MEDIA_ROOT)
27 urlpatterns += static(settings.STATIC_URL, document_root=settings.STATIC_ROOT)
28
```

11. To access our ADMIN PANEL, run the migrations to see the default model.

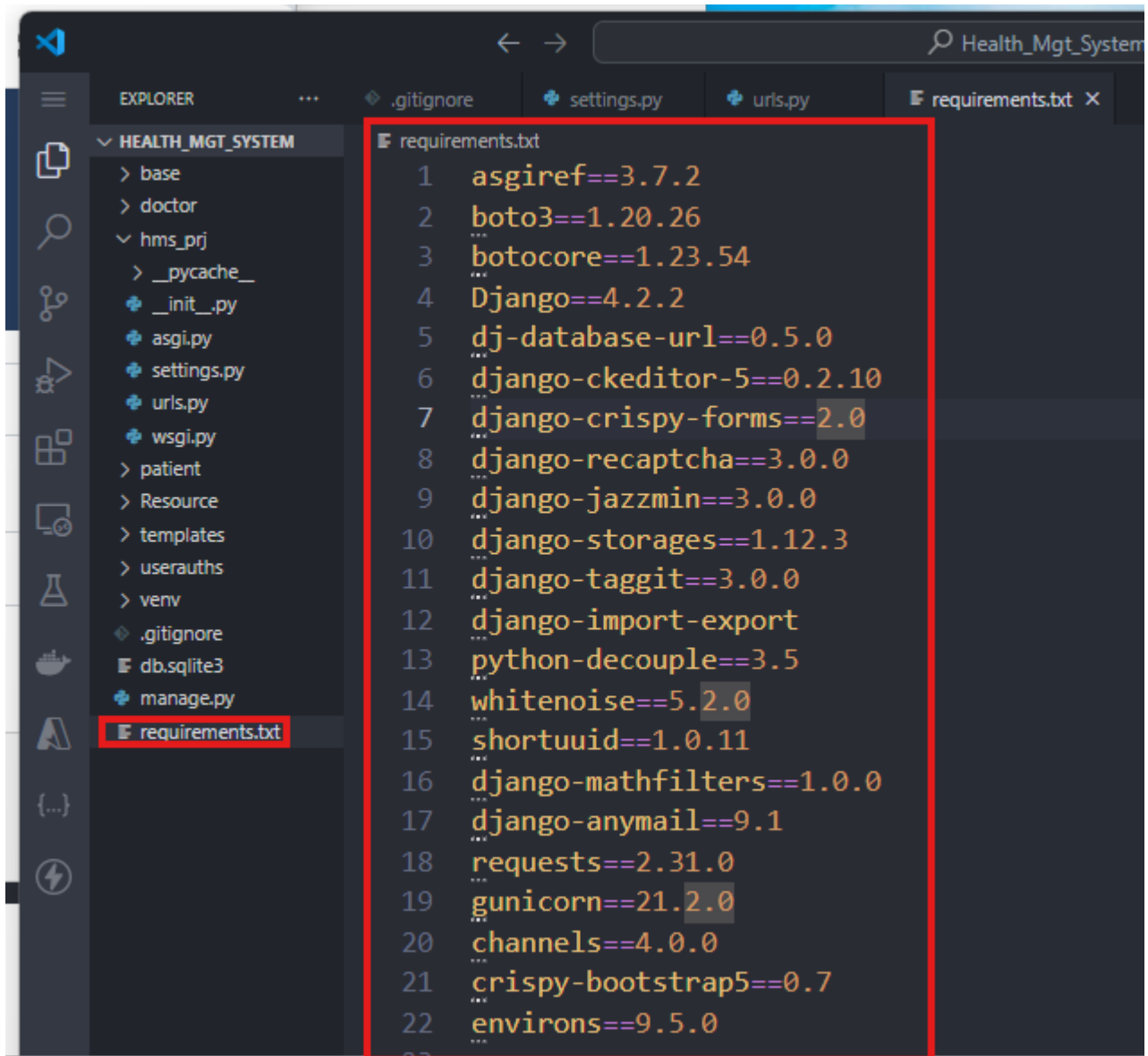
```
$ python manage.py migrate
```

12. Create your superuser

```
$ python manage.py createsuperuser
```

13. Install the packages from the RESOURCE folder. This will install the packages used by the instructor.

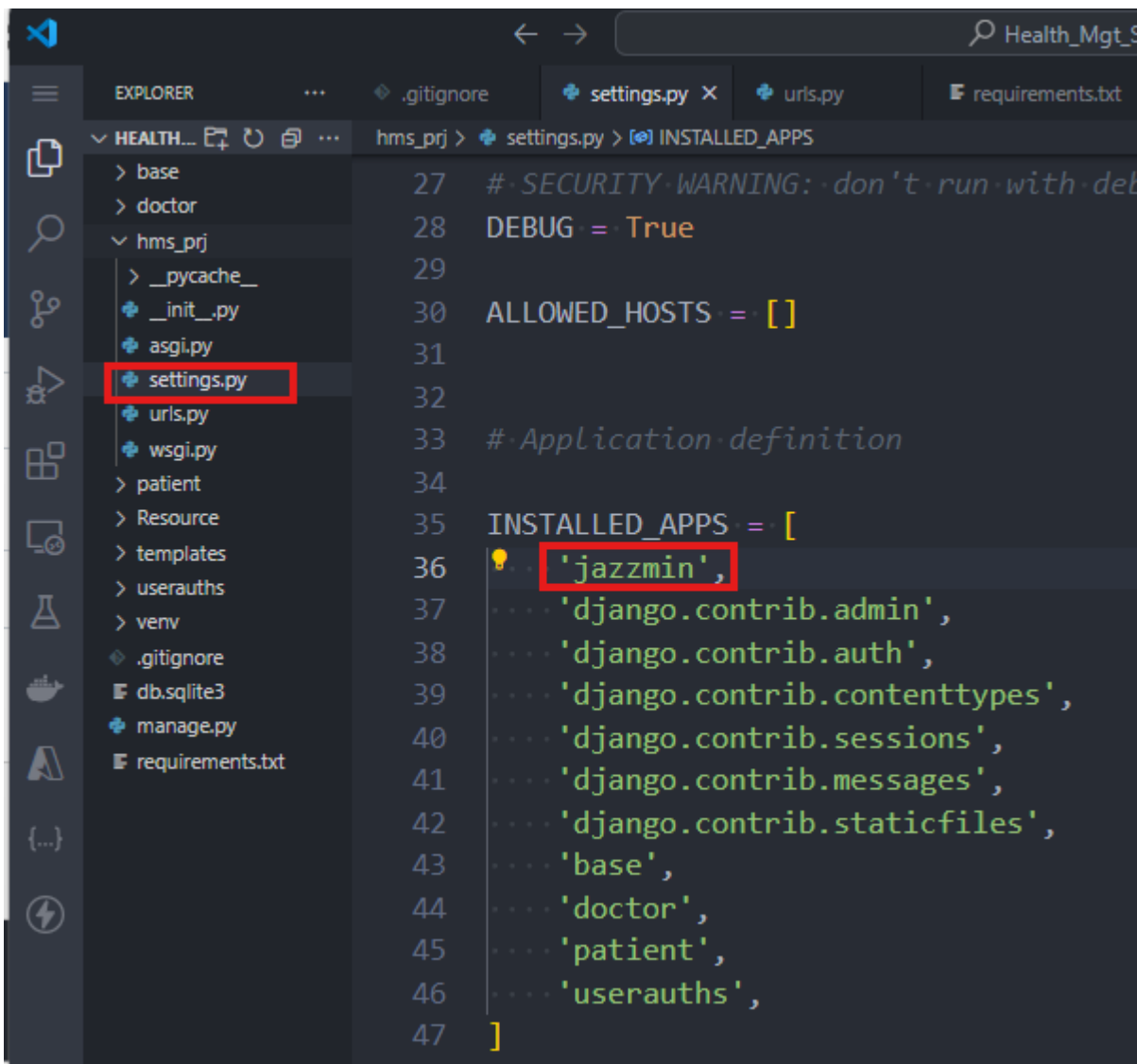
```
$ pip install -r requirements.txt
```



```
requirements.txt
1 asgiref==3.7.2
2 boto3==1.20.26
3 botocore==1.23.54
4 Django==4.2.2
5 dj-database-url==0.5.0
6 django-ckeditor-5==0.2.10
7 django-crispy-forms==2.0
8 django-recaptcha==3.0.0
9 django-jazzmin==3.0.0
10 django-storages==1.12.3
11 django-taggit==3.0.0
12 django-import-export
13 python-decouple==3.5
14 whitenoise==5.2.0
15 shortuuid==1.0.11
16 django-mathfilters==1.0.0
17 django-anymail==9.1
18 requests==2.31.0
19 gunicorn==21.2.0
20 channels==4.0.0
21 crispy-bootstrap5==0.7
22 environs==9.5.0
```

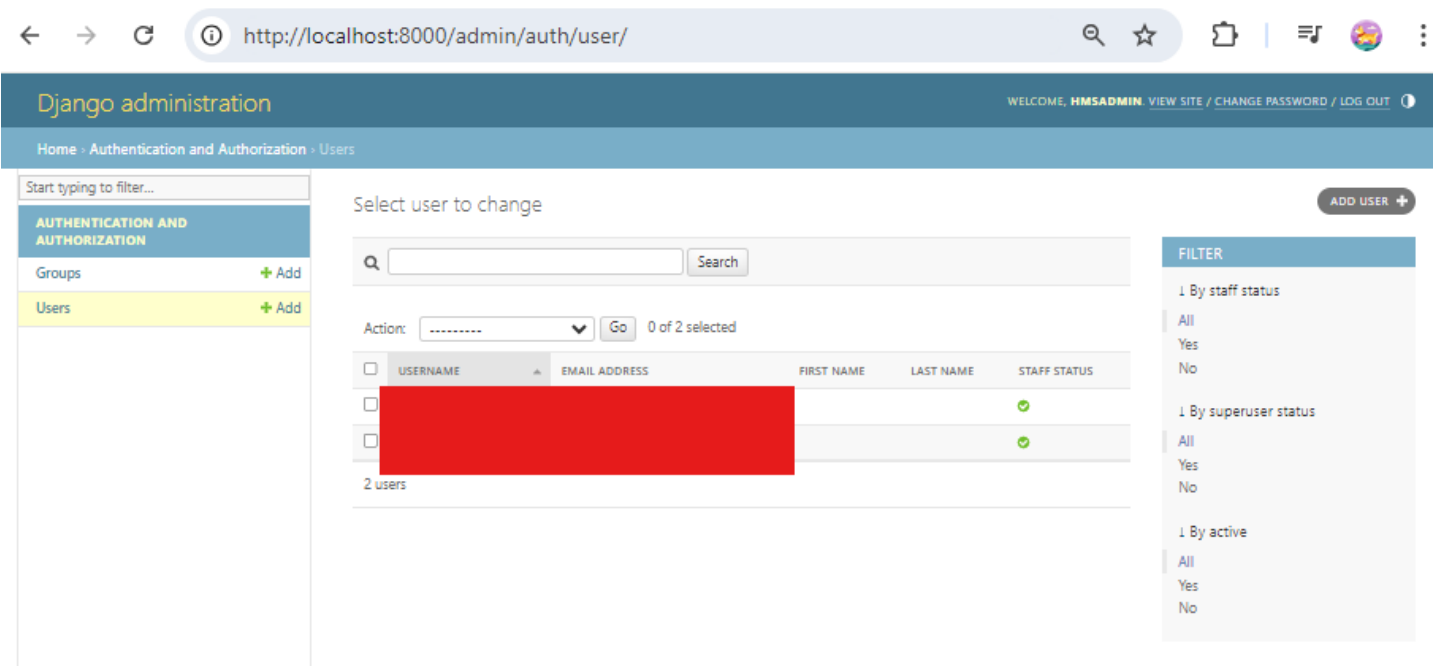
14. Instead of using default DJANGO ADMIN DASHBOARD, we use the package [DJANGO JAZZMIN](#) for a more customizable and modern look.

Include JAZZMIN in your INSTALLED_APPS in SETTINGS.PY

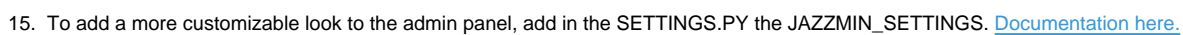


```
27 # SECURITY WARNING: don't run with debug turned on in production
28 DEBUG = True
29
30 ALLOWED_HOSTS = []
31
32
33 # Application definition
34
35 INSTALLED_APPS = [
36     'jazzmin',
37     'django.contrib.admin',
38     'django.contrib.auth',
39     'django.contrib.contenttypes',
40     'django.contrib.sessions',
41     'django.contrib.messages',
42     'django.contrib.staticfiles',
43     'base',
44     'doctor',
45     'patient',
46     'userauths',
47 ]
```

BEFORE JAZZMIN:



AFTER JAZZMIN:



15. To add a more customizable look to the admin panel, add in the `SETTINGS.PY` the `JAZZMIN_SETTINGS`. [Documentation here](#).

```
154
155
156 # Jazzmin Configuration
JAZZMIN_SETTINGS = {
157     ... # title of the window (Will default to current_admin_site.site_title)
158     "site_title": "RNL HealthCare | Health Management System",
159     ... # Title on the login screen (19 chars max) (defaults to current_admin_site.site_title)
160     "site_header": "Health Management System",
161     ... # Title on the brand (19 chars max) (defaults to current_admin_site.site_title)
162     "site_brand": "RNL HealthCare | Health Management System",
163     ... # Welcome text on the login screen
164     "welcome_sign": "Welcome to the RNL HealthCare, Login Now",
165     ... # Copyright on the footer
166     "copyright": "RNL Web Solutions",
167     ... # List of apps (and/or models) to base side menu ordering off of
168     "order_with_respect_to": ["base",],
169     ... # Custom icons for side menu apps/models See https://fontawesome.com
170     ... # for the full list of 5.13.0 free icon classes
171     "icons": {
172         "auth": "fas fa-users-cog",
173         "auth.user": "fas fa-user",
174         "auth.Group": "fas fa-users",
175     },
176     "show_ui_builder": True,
177 }
178
179 JAZZMIN_UI_TWEAKS = {
180     "navbar_small_text": False,
181     "footer_small_text": False,
```

16. Reload your page and in the admin dashboard, you will see the UI builder, you need to copy this code and add this as JAZZMIN_TWEAKS. COPY THIS CODE INTO YOUR SETTINGS.PY.

