

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.

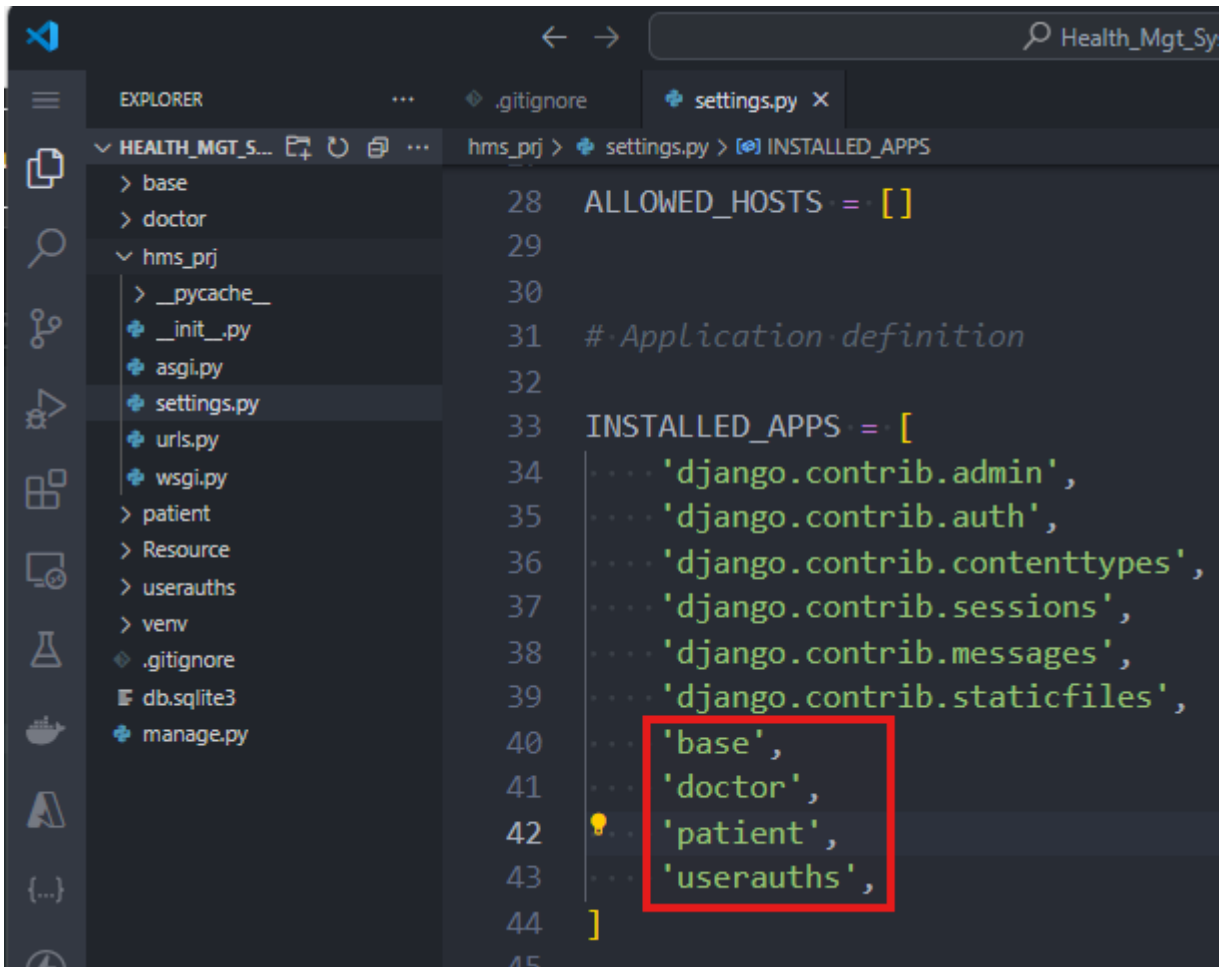
(venv)
Rosilie@DELL MINGW64 ~/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health_Mgt_System
$ code .|
```

```
$ python manage.py startapp base
```

```
$ python manage.py startapp doctor
```

```
$ python manage.py startapp patient
```

```
$ python manage.py startapp userauths
```



```
HEALTH_MGT_5... | .gitignore | settings.py X
hms_prj > | settings.py > [ ] INSTALLED_APPS
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 ]
45
```

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

The screenshot shows the Visual Studio Code editor with the file explorer on the left and the settings.py file open in the main editor. The file explorer shows a project structure with a 'templates' folder highlighted in red. The settings.py file contains the following code:

```
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.

The screenshot shows the Visual Studio Code editor with the file explorer on the left and the settings.py file open in the main editor. The file explorer shows the 'settings.py' file highlighted in red. The settings.py file contains the following code:

```
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/'subdir'.
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:

```
Health_Mgt_System
EXPLORER
HEALTH_MGT_SYSTEM
  hms_prj
    urls.py
      static
        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.

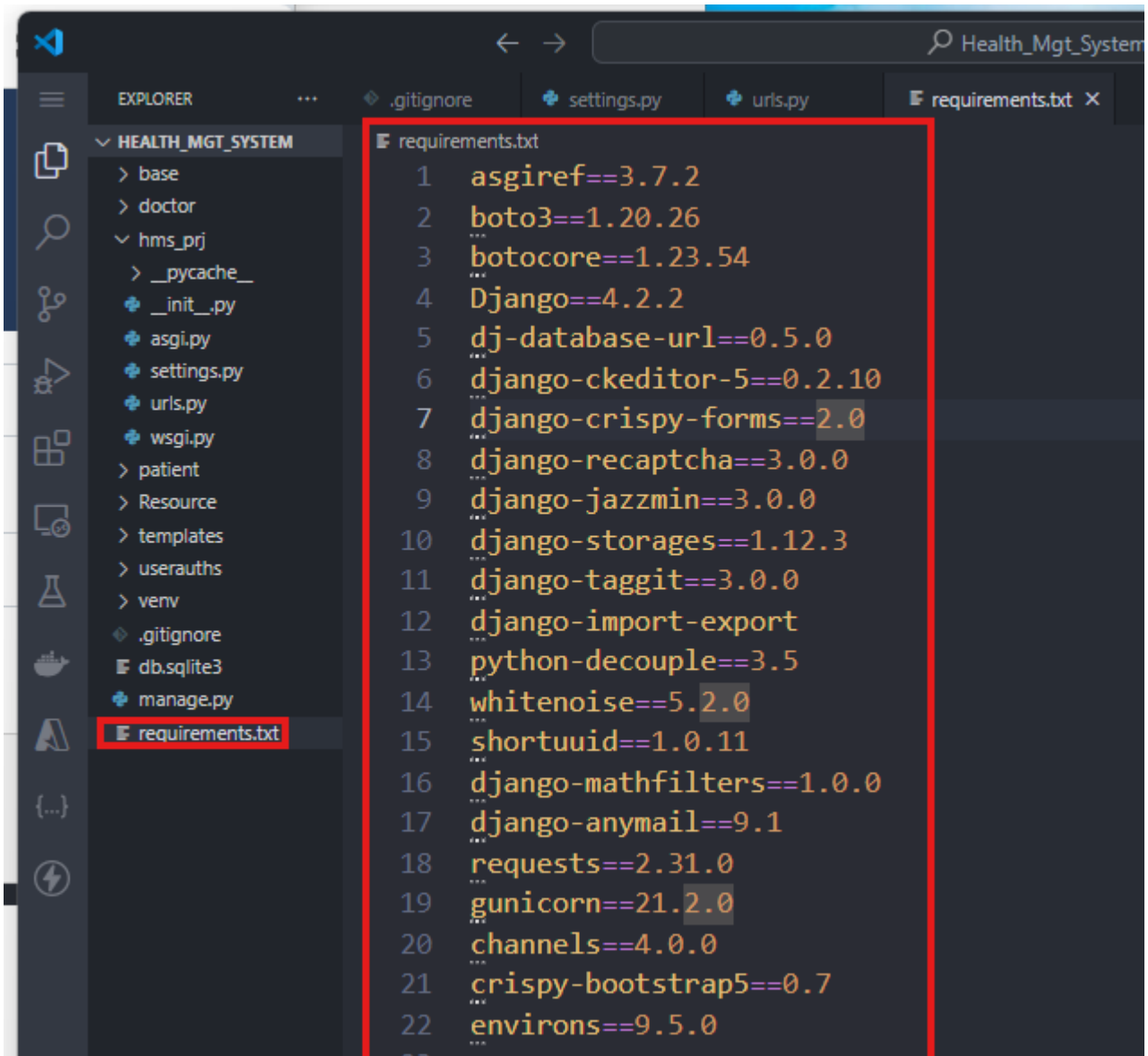
```
$ python manage.py migrate
```

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
```



The image shows a code editor window with a dark theme. The Explorer sidebar on the left shows a project structure for 'HEALTH_MGT_SYSTEM' with folders like 'base', 'doctor', 'hms_prj', and files like 'manage.py' and 'requirements.txt'. The main editor area displays the contents of 'requirements.txt', which lists 22 dependencies. A red box highlights the entire requirements.txt content.

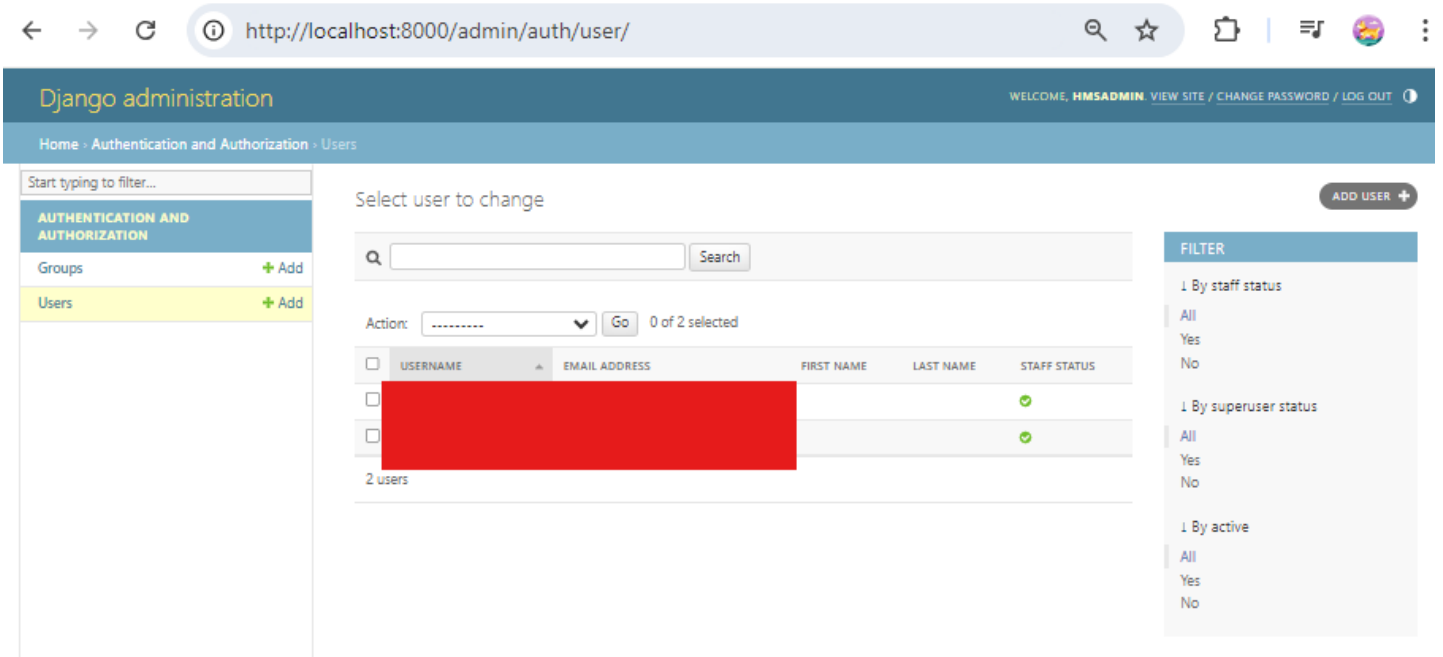
```
1 asgiref==3.7.2
2 boto3==1.20.26
3 botocore==1.23.54
4 Django==4.2.2
5 dj-database-url==0.5.0
6 django-ckeditor-5==0.2.10
7 django-crispy-forms==2.0
8 django-recaptcha==3.0.0
9 django-jazzmin==3.0.0
10 django-storages==1.12.3
11 django-taggit==3.0.0
12 django-import-export
13 python-decouple==3.5
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.

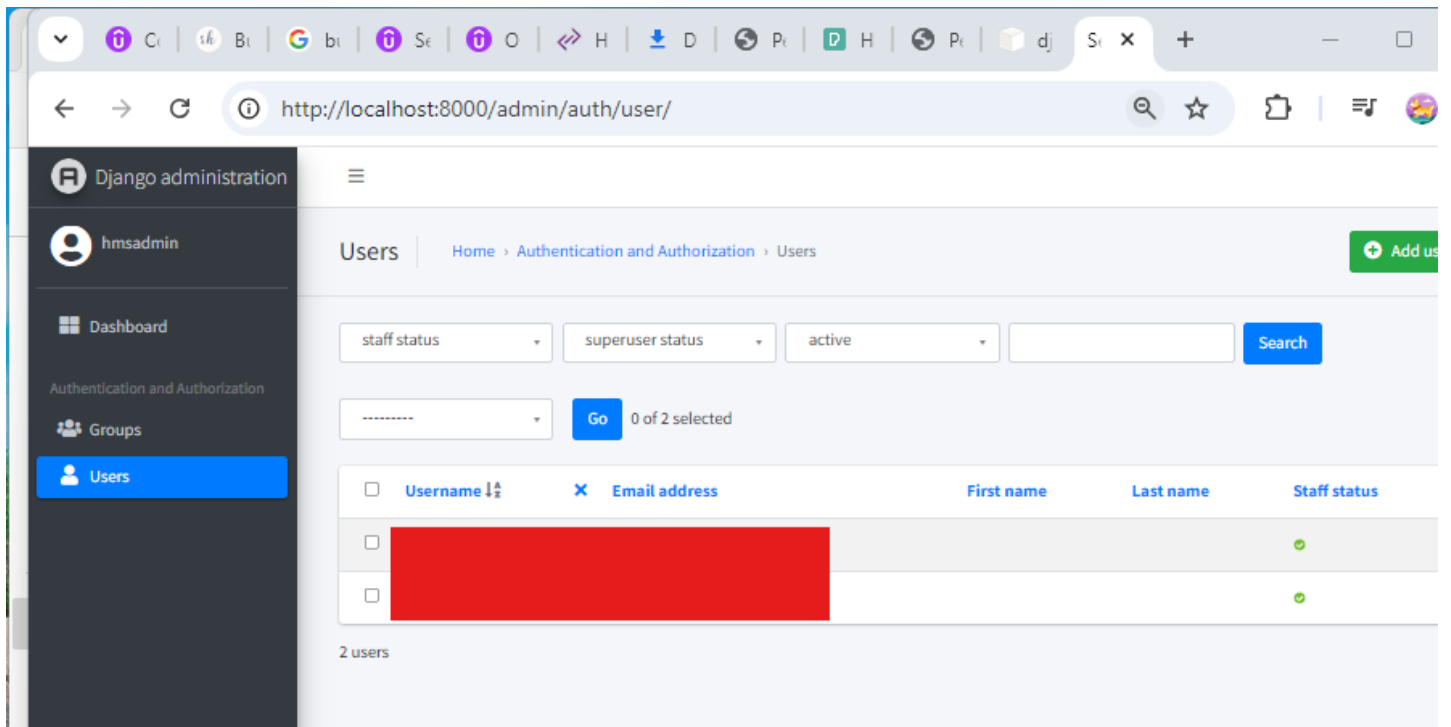
Include JAZZMIN in your INSTALLED_APPS in SETTINGS.PY

```
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 # Jazzmin Configuration
156 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_header)
160     ... "site_header": "Health Management System",
161     ... # Title on the brand (19 chars max) (defaults to current_admin_site.site_header)
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/docs/icon-classes
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.

http://localhost:8000/admin/

hmsadmin

Dashboard

Authentication and Authorization

Groups

Users

UI Configuration

Copy this info your settings file to persist these UI changes

```
JAZZMIN_UI_TWEAKS = {
  "navbar_small_text": True,
  "footer_small_text": False,
  "body_small_text": True,
  "brand_small_text": False,
  "brand_colour": "navbar-info",
  "accent": "accent-danger",
  "navbar": "navbar-info navbar-dark",
  "no_navbar_border": False,
  "navbar_fixed": False,
  "layout_boxed": False,
  "footer_fixed": False,
  "sidebar_fixed": True,
  "sidebar": "sidebar-light-info",
  "sidebar_nav_small_text": False,
  "sidebar_disable_expand": False,
  "sidebar_nav_child_indent": False,
  "sidebar_nav_compact_style": True,
  "sidebar_nav_legacy_style": False,
  "sidebar_nav_flat_style": False,
  "theme": "cerulean",
  "dark_mode_theme": None,
  "button_classes": {
    "primary": "btn-primary",
    "secondary": "btn-outline-secondary",
    "info": "btn-info",
    "warning": "btn-warning",
    "danger": "btn-danger",
    "success": "btn-success"
  }
}
```

Close

Accent Color Variants

Dark Sidebar Variants

Light Sidebar Variants

Brand Logo Variants

Show code

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