

## 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.

MINGW64:/c/Users/Rosilie/OneDrive/Desktop/LEARNING DJANGO PROJECTS/Health\_Mgt\_System

```
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: venv\scripts\activate: 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-admin: 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...

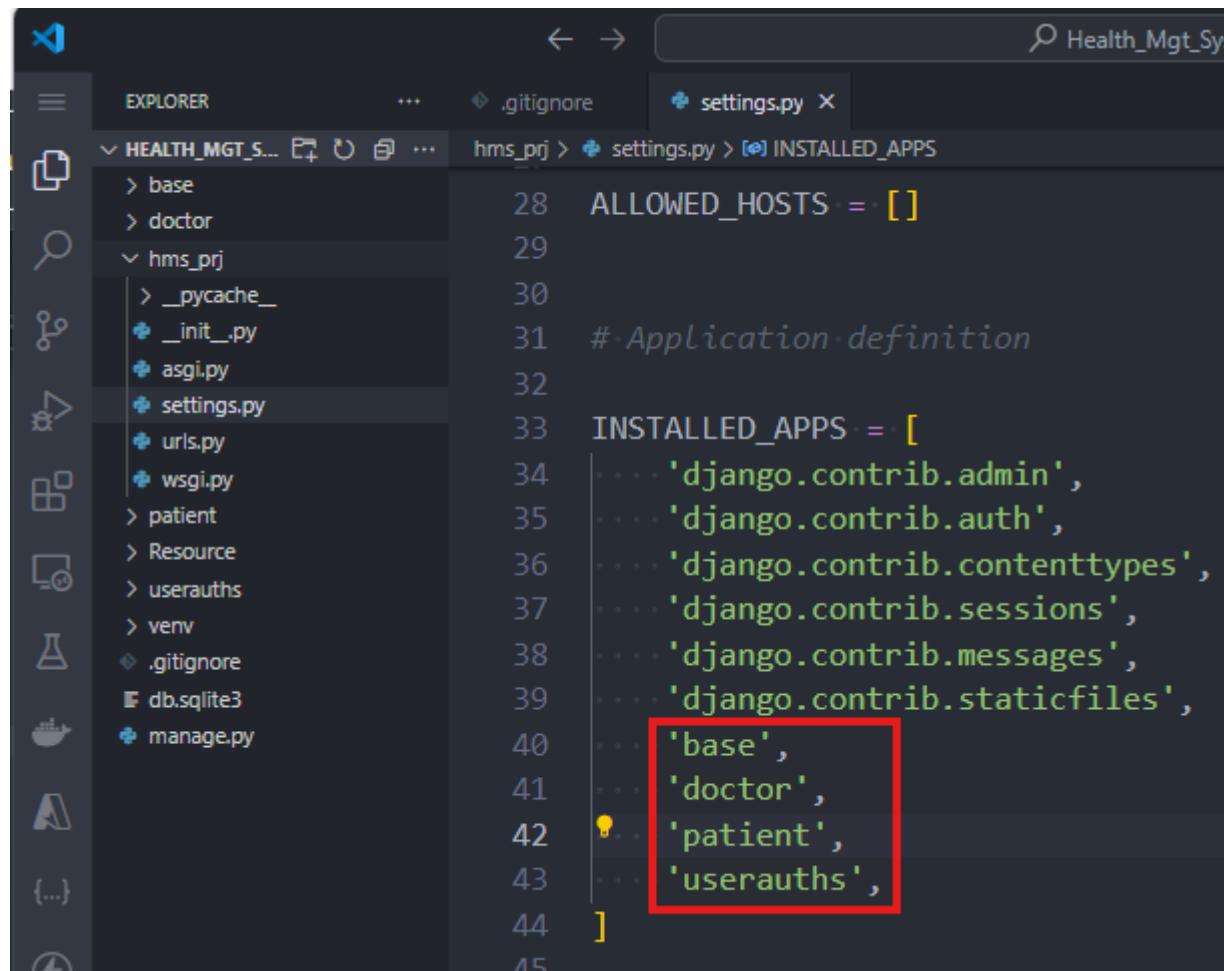
System check identified no issues (0 silenced).

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 - 19:33:55
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 .
```

5. Create new apps and update SETTINGS.PY. I CHANGED THE PROJECT NAME FROM 'hms\_prj' TO 'HMS\_MAIN'

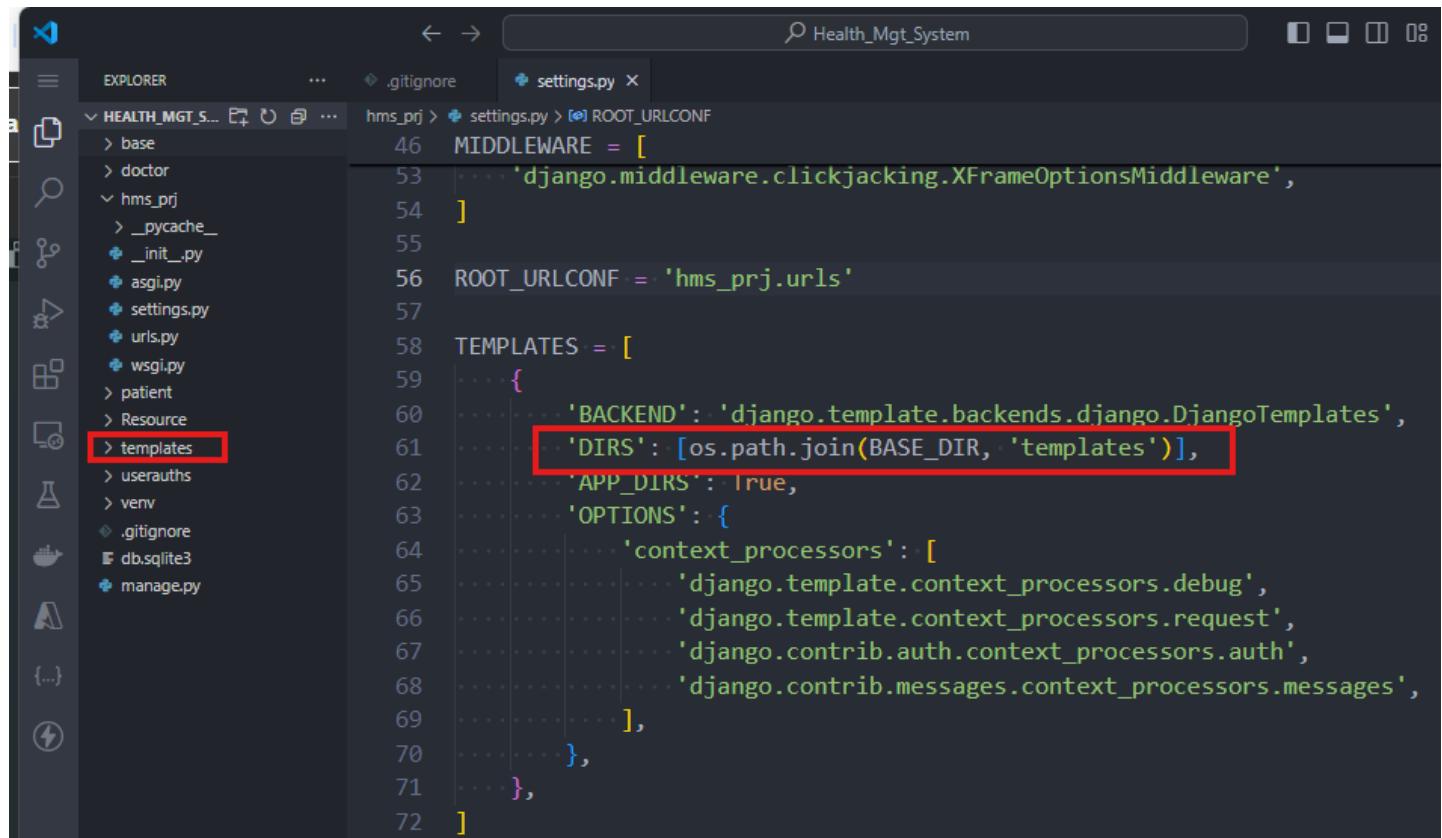
```
$ python manage.py startapp base
$ python manage.py startapp doctor
$ python manage.py startapp patient
$ python manage.py startapp userauths
```



```
EXPLORER             ...  .gitignore  settings.py X
HEALTH_MGT_S...  ...  hms_prj > settings.py > [e] INSTALLED_APPS
> base
> doctor
> hms_prj
> __pycache__
> __init__.py
> asgi.py
> settings.py
> urls.py
> wsgi.py
> patient
> Resource
> userauths
> venv
> .gitignore
> db.sqlite3
> manage.py

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.



EXPLORER .gitignore settings.py

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',

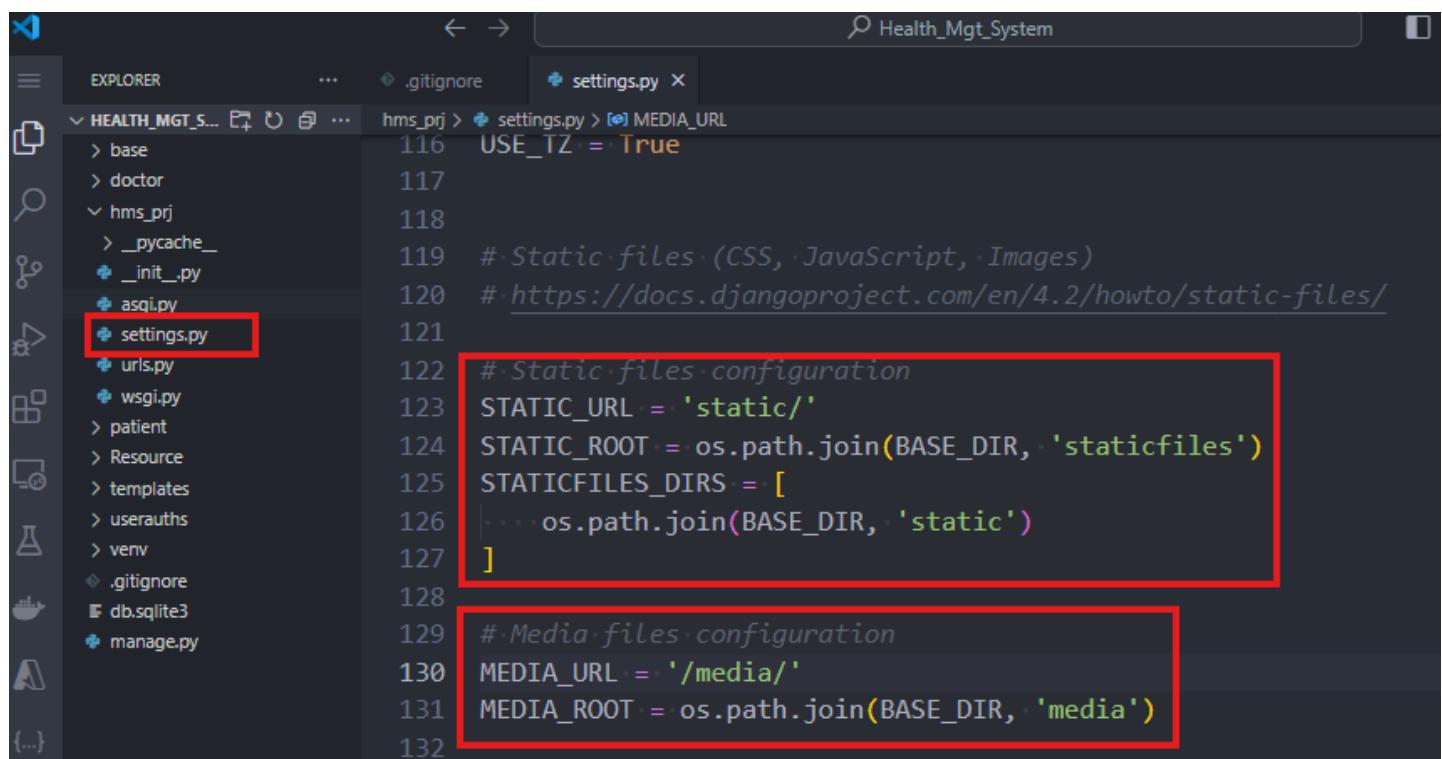
69 ],

70 },

71 },

72 ]

7. Set up the STATIC AND MEDIA configurations.



EXPLORER .gitignore settings.py

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

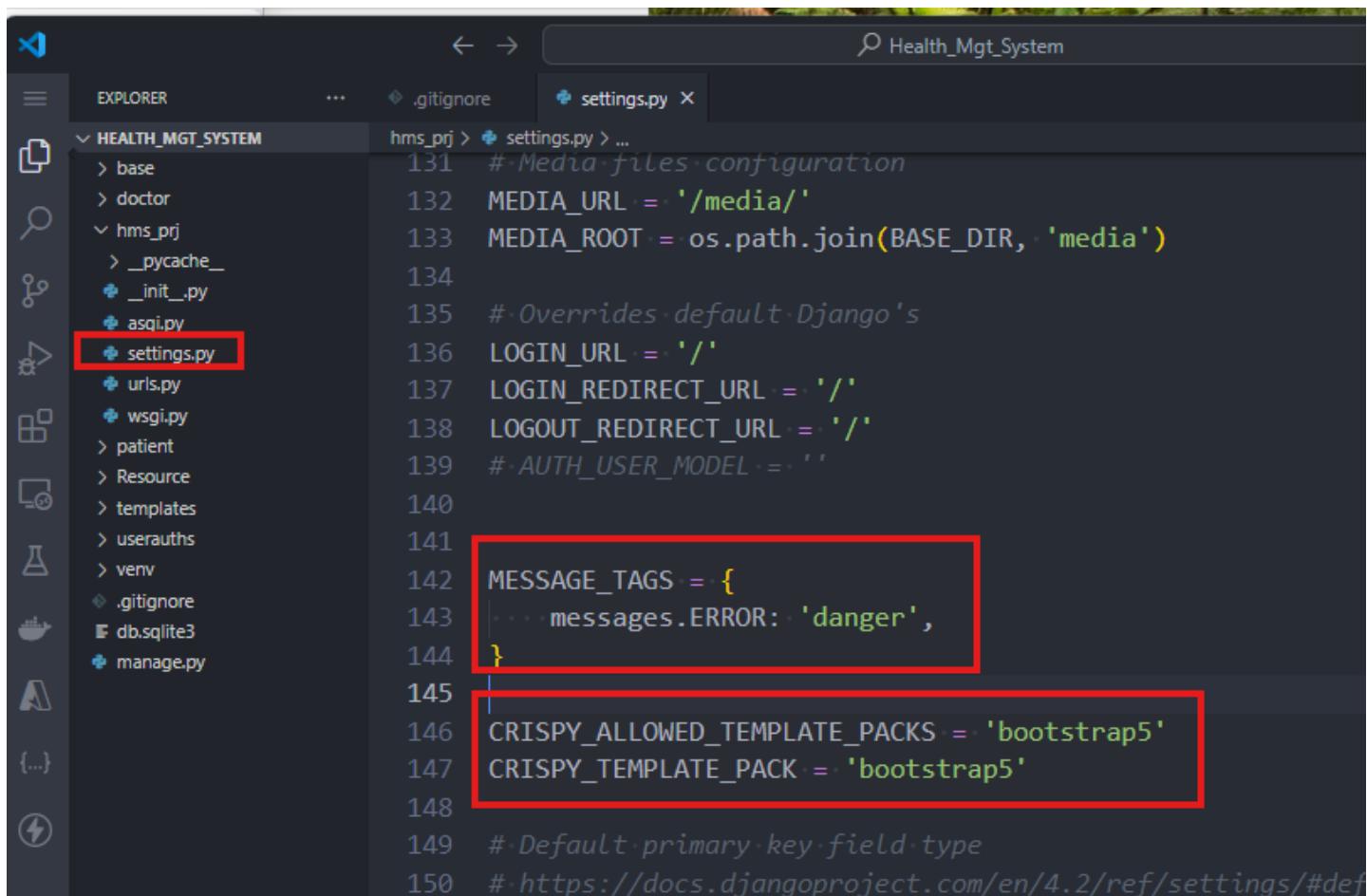
8. Update SETTINGS.PY to override default login/logout and user models:



VS Code interface showing the Explorer and Editor panes. The Explorer pane shows a project structure with a file named 'settings.py' selected. The Editor pane shows the 'settings.py' file with code. Lines 14 and 15 are highlighted with a red box: 'import os' and 'from django.contrib.messages import constants as messages'.

```
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
```

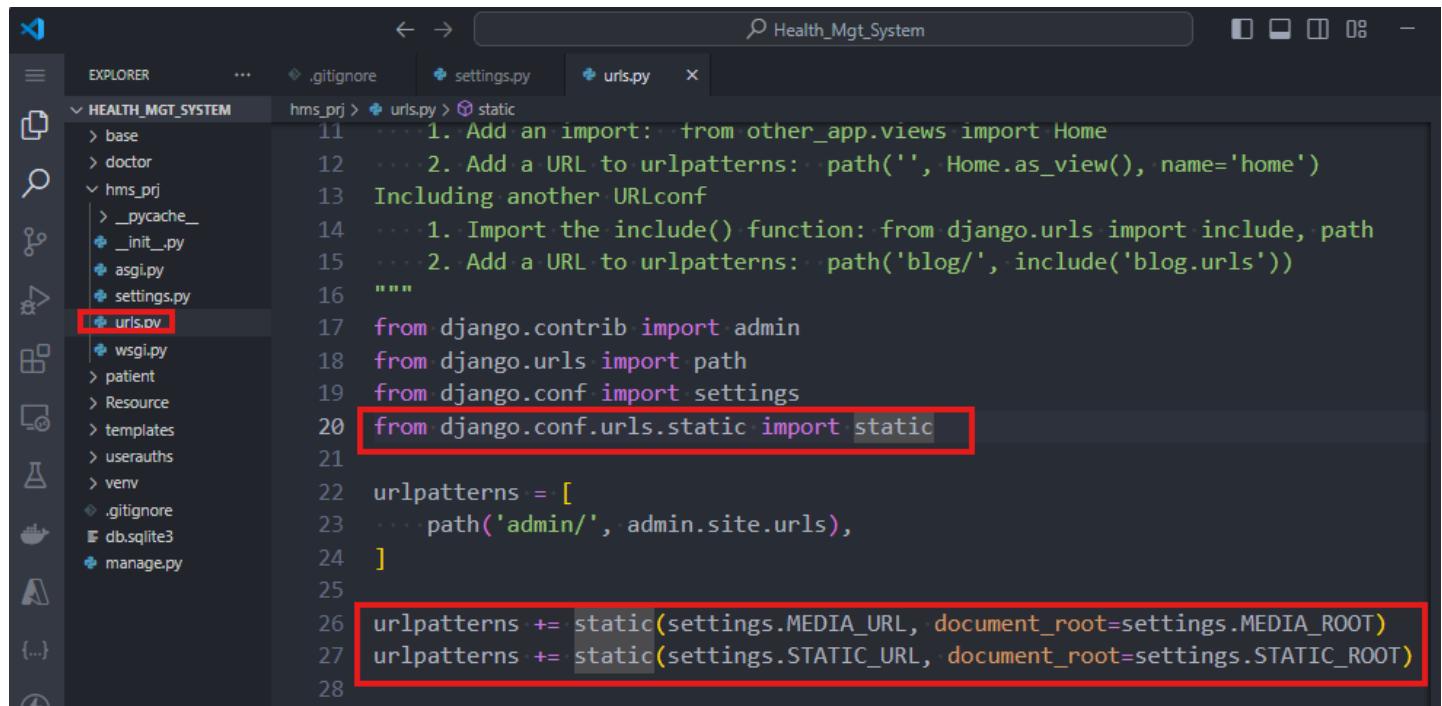
9. For messages and forms configuration, update our SETTINGS.PY:



VS Code interface showing the Explorer and Editor panes. The Explorer pane shows a project structure with a file named 'settings.py' selected. The Editor pane shows the 'settings.py' file with code. Two sections of code are highlighted with red boxes: 'MESSAGE\_TAGS' and 'CRISPY\_ALLOWED\_TEMPLATE\_PACKS'.

```
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 MESSAGE_TAGS = {
142     messages.ERROR: 'danger',
143 }
144
145 CRISPY_ALLOWED_TEMPLATE_PACKS = 'bootstrap5'
146 CRISPY_TEMPLATE_PACK = 'bootstrap5'
147
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.

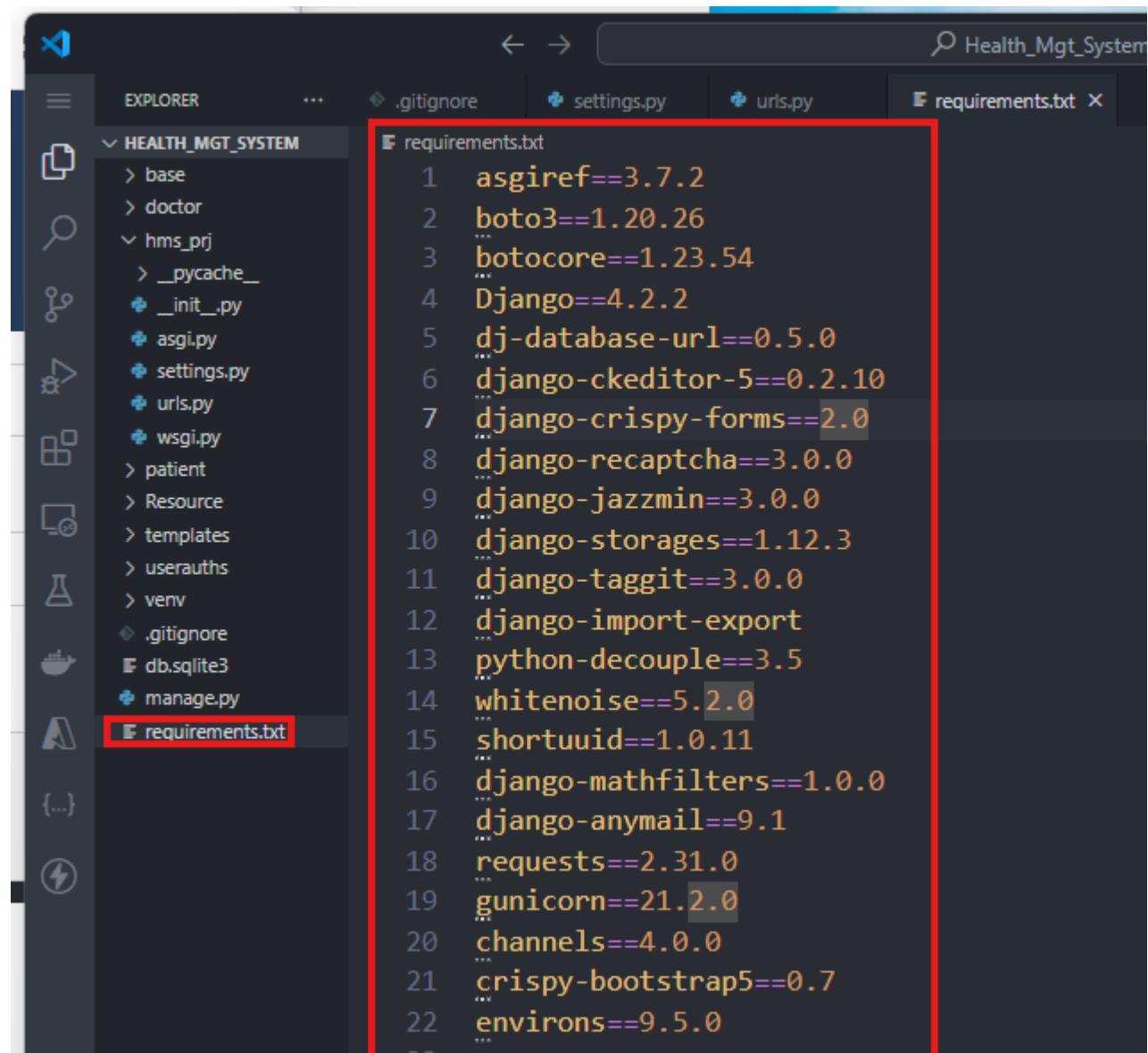
```
$ python manage.py migrate
```

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.

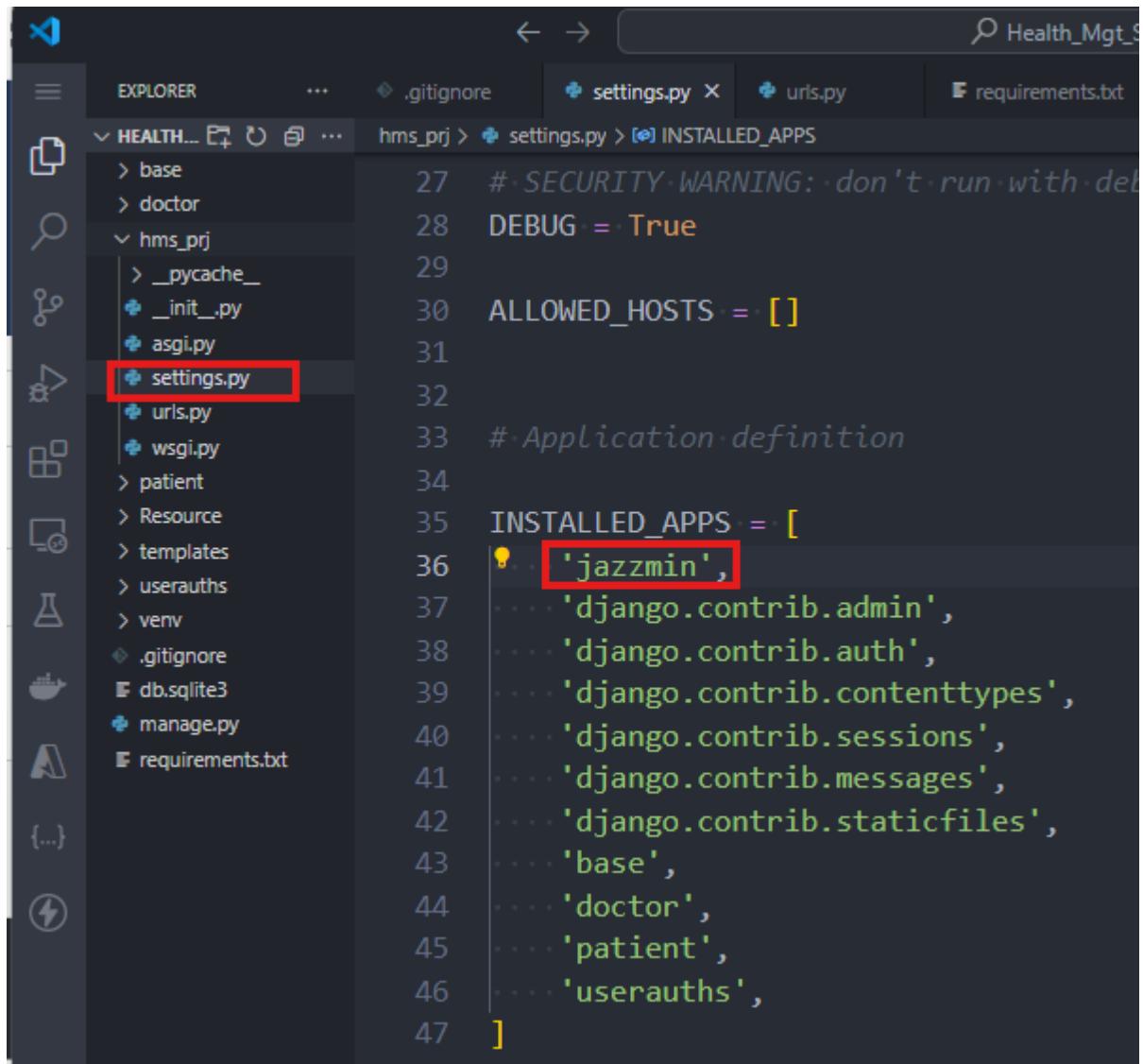
```
$ pip install -r requirements.txt
```



```
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
```

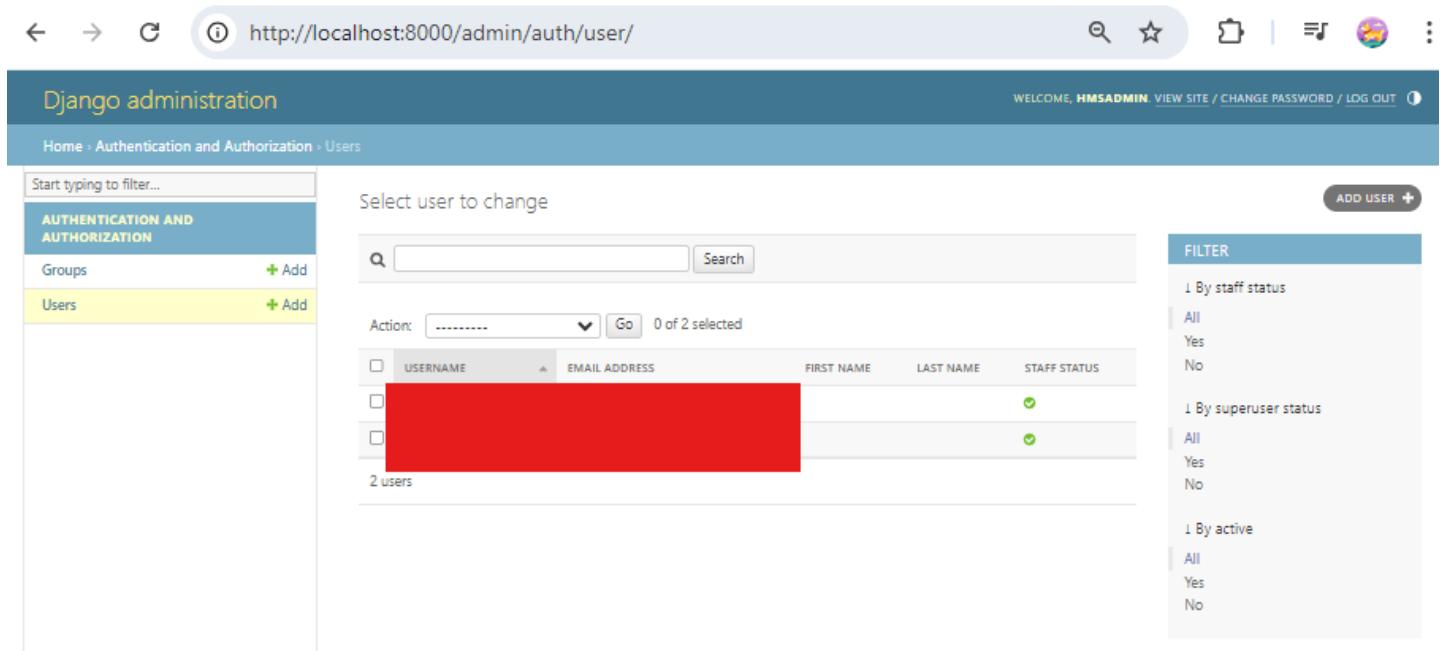
14. Instead of using default DJANGO ADMIN DASHBOARD, we use the package [DJANGO JAZZMIN](#) for a more customizable and modern look.

Include JAZZMIN in your INSTALLED\_APPS in SETTINGS.PY



```
27 # SECURITY WARNING: don't run with debug=True 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:



http://localhost:8000/admin/auth/user/

Django administration

Home > Authentication and Authorization > Users

Start typing to filter...

AUTHENTICATION AND AUTHORIZATION

Groups [+ Add](#)

Users [+ Add](#)

Select user to change

Action: [.....](#) Go 0 of 2 selected

<input type="checkbox"/>	USERNAME	EMAIL ADDRESS	FIRST NAME	LAST NAME	STAFF STATUS
<input type="checkbox"/>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>
<input type="checkbox"/>	[REDACTED]	[REDACTED]	[REDACTED]	[REDACTED]	<input checked="" type="checkbox"/>

2 users

FILTER

By staff status

All Yes No

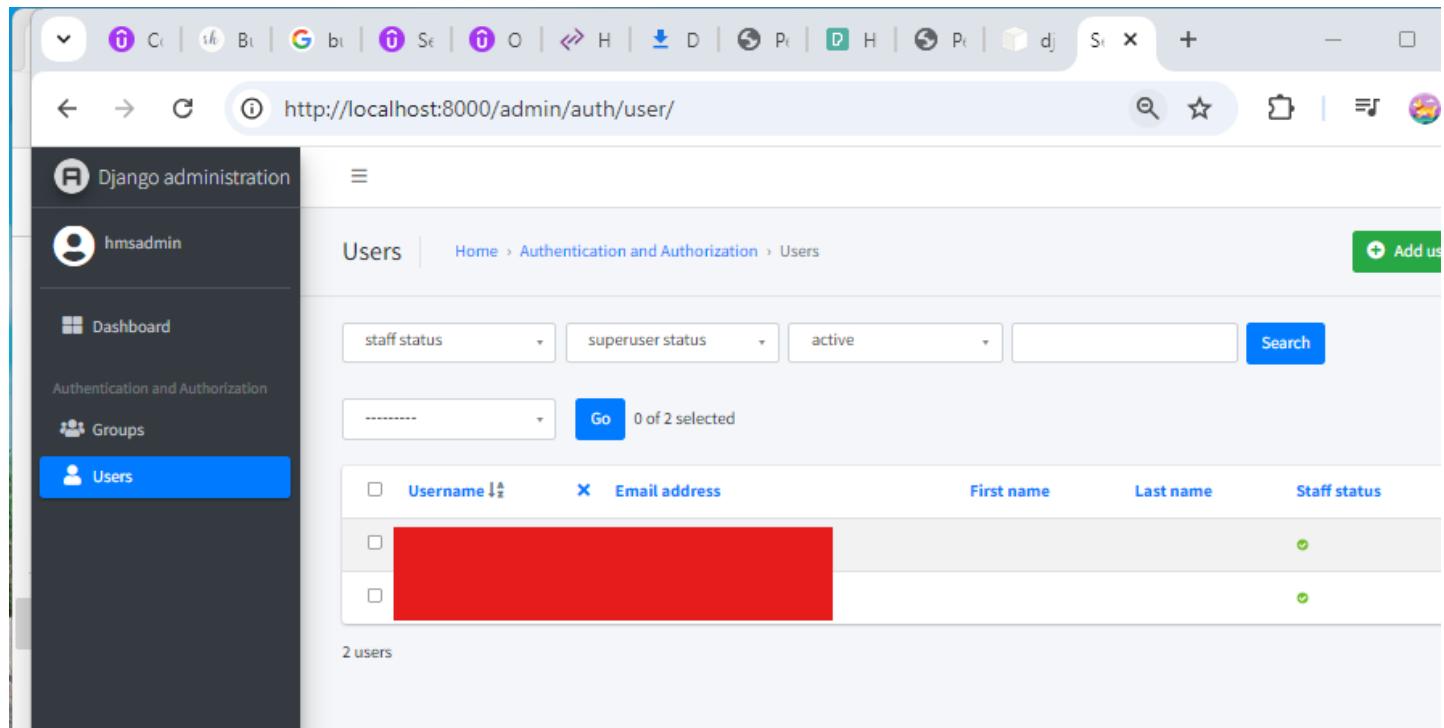
By superuser status

All Yes No

By active

All Yes No

AFTER JAZZMIN:



The screenshot shows the Django admin interface for the 'Users' model. The left sidebar has a dark theme with the 'Users' item selected. The main content area has a light background. At the top, there are filter dropdowns for 'staff status' (set to 'active'), 'superuser status' (set to 'superuser'), and 'active'. A search bar and a 'Search' button are also present. Below the filters, a search bar shows '-----' and a 'Go' button with the text '0 of 2 selected'. The main table lists two users, each with a checkbox, a 'Username' column (containing '-----'), an 'Email address' column (containing '-----'), and 'First name', 'Last name', and 'Staff status' columns. Both users have a checked 'Staff status' checkbox. The table footer indicates '2 users'.

	Username	Email address	First name	Last name	Staff status
<input type="checkbox"/>	-----	-----			<input checked="" type="checkbox"/>
<input type="checkbox"/>	-----	-----			<input checked="" type="checkbox"/>

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
160     ...#·Title·on·the·Login·screen·(19·chars·max)·(defaults·to·current_admin_site.site_header)
161     ..."site_header": "Health Management System",
162
163     ...#·Title·on·the·brand·(19·chars·max)·(defaults·to·current_admin_site.site_brand)
164     ..."site_brand": "RNL·HealthCare | Health Management System",
165
166     ...#·Welcome·text·on·the·Login·screen
167     ..."welcome_sign": "Welcome to the RNL·HealthCare, Login Now",
168
169     ...#·Copyright·on·the·footer
170     ..."copyright": "RNL·Web·Solutions",
171
172     ...#·List·of·apps·(and/or·models)·to·base·side·menu·ordering·off·order
173     ..."order_with_respect_to": ["base", ],
174
175     ...#·Custom·icons·for·side·menu·apps/models·See·https://fontawesome.com
176     ...#·for·the·full·list·of·5.13.0·free·icon·classes
177     ..."icons": {
178         ..."auth": "fas fa-users-cog",
179         ..."auth.user": "fas fa-user",
180         ..."auth.Group": "fas fa-users",
181     },
182
183     ..."show_ui_builder": True,
184 }
185
186 JAZZMIN_UI_TWEAKS = {
187     ..."navbar_small_text": False,
188     ..."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.

The screenshot shows a web application interface for 'RNL HealthCare | Health Manager' at the URL <http://localhost:8000/admin/>. A modal window titled 'UI Configuration' is open, containing a code block for 'JAZZMIN\_UI\_TWEAKS' settings. The code defines various UI styles for components like navbars, footers, and buttons. A red box highlights the modal, and a red arrow points to the top right corner of the browser window. At the bottom right of the page, a green button labeled 'Show code' is circled with a red arrow.

```
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

Copyright © 2024 RNL Web Solutions. All rights reserved.

Show code