

# JWT Authentication with Django REST Framework

Last Updated: 04 May, 2020

JSON Web Token is an open standard for securely transferring data within parties using a JSON object. JWT is used for stateless authentication mechanisms for users and providers, this means maintaining session is on the client-side instead of storing sessions on the server. Here, we will implement the JWT authentication system in Django.

### Modules required:

- django : <u>Django Installation</u>
- djangorestframework\_simplejwt:

pip install djangorestframework\_simplejwt

### Basic setup:

Start a project by the following command –

django-admin startproject config

Change directory to project config -

cd config

Start the server- Start the server by typing following command in terminal –

python manage.py runserver

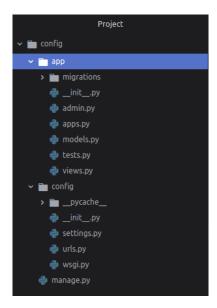
To check whether the server is running or not go to a web browser and enter <a href="http://127.0.0.1:8000/">http://127.0.0.1:8000/</a> as URL.

Now stop the server by pressing

ctrl-c

Let's create an app now called the "app".

#### python manage.py startapp app



## adding configuration to settings.py file:

open settings.py file in config folder and add configuration.

```
REST_FRAMEWORK = {
    'DEFAULT_AUTHENTICATION_CLASSES': [
        'rest_framework_simplejwt.authentication.JWTAuthentication',
    ],
}
```

### edit urls.py file

open urls.py in config folder

```
from django.urls import path, include
from rest_framework_simplejwt import views as jwt_views

urlpatterns = [
   path('api/token/',
        jwt_views.TokenObtainPairView.as_view(),
        name ='token_obtain_pair'),
   path('api/token/refresh/',
        jwt_views.TokenRefreshView.as_view(),
        name ='token_refresh'),
   path('', include('app.urls')),
]
```

#### edit views.py

open views.py in app folder and make a API view

```
from rest_framework.views import APIView
from rest_framework.response import Response
from rest_framework.permissions import IsAuthenticated

class HelloView(APIView):
    permission_classes = (IsAuthenticated, )

def get(self, request):
    content = {'message': 'Hello, GeeksforGeeks'}
    return Response(content)
```

### edit urls.py

create a urls.py in app folder and edit it

```
from django.urls import path
from . import views

urlpatterns = [
    path('hello/', views.HelloView.as_view(), name ='hello'),
]
```

### Usage:

To make an HTTP request we have used HTTPie, to install it.

### \$ sudo apt install httpie

```
spider@spider: ~
File Edit View Search Terminal Help

spider@spider:~ ~> sudo apt install httpie
Reading package lists... Done
Building dependency tree
Reading state information... Done
httpie is already the newest version (0.9.8-2).
0 upgraded, 0 newly installed, 0 to remove and 5 not upgraded.

spider@spider:~ ~>
```

### Step 1:

migrate project, create a superuser and runserver

- \$ python3 manage.py migrate
- \$ python manage.py createsuperuser
- \$ python manage.py runserver 4000

### Step 2:

Now, we need to authenticate and obtain the token. which we will get at endpoint is

/api/token/

\$ http post http://127.0.0.1:4000/api/token/ username=spider
password=vinayak

add your user name and password

```
spider@spider: ~ _ _ _ X
File Edit View Search Terminal Help

spider@spider: ~ -> http post http://127.0.0.1:4000/api/token/ username=spider password=vinayak

HTTP/1.1 200 0K
Allow: POST, OPTIONS
Content-Length: 438
Content-Ippg: application/json
Date: Sun, 19 Apr 2020 06:45:27 GMT
Server: WSGTServer/0.2 CPython/3.6.9
Vary: Accept
X-Content-Type-Options: nosniff
X-Frame-Options: DENY
```

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#### Step 3:

copy access token and make a request

\$ http http://127.0.0.1:4000/hello/ "Authorization: Bearer
eyJ0eXAiOiJKV1QiLCJhbGciOiJIUzI1NiJ9.eyJ0b2tlbl90eXBlIjoiYWNjZXNzIiwiZXh
wIjoxNTg3Mjc5NDIxLCJqdGkiOiIzYWMwNDgzOTY3NjE0ZDgxYmFjMjBiMTBjMDlkMmYwOCI
sInVzZXJfaWQiOjF9.qtNrUpyPQI8W2K2T22NhcgVZGFTyLN1UL7uqJ0KnF0Y"

```
spider@spider: ~ _ _ _ _ X

File Edit View Search Terminal Help

spider@spider: ~ > http http://127.0.0.1:4000/hello/ "Authorization: Bearer eyJ0eXAi0iJKV1QiLCJhbGci0iJJUzI1NiJ9.eyJ0b2t
lb190eXBiIjoiYMNjZXNzIiwiZXhwIjoxNTg3Mjc5NDIxLCJqdGki0iIzYNMwNDgz0TY3NjE0ZDgxYmFjMjBiMTBjMDlkMmYw0CIsInVzZXJfaNQi0jF9.qtM
rUpyPQI8NZXZTZ2NhcgVZCFTyLN1ULTuqJ0KnF0Y"
HTTP/1.1 200 0K
Allow: GET, HEAD, OPTIONS
Content-Length: 34
Content-Length: 34
Content-Type: application/json
Date: Sun, 19 Apr 2020 06:52:34 GMT
Server: W5GIServer/0.2 CPython/3.6.9
Vary: Accept
X-Content-Type-Options: nosniff
X-Frane-Options: DENY

{
    "nessage": "Hello, GeeksforGeeks"
}
spider@spider:~ ~> |
```

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