
Authentication and Permissions

- ❖ In production environment, the RESTful web service should only be available over HTTPS, with the latest TLS version.
- ❖ BasicAuthentication using username and password
- ❖ TokenAuthentication

Authentication Classes

- ❖ Configure authentication classes
 - ❖ `settings.py` - `REST_FRAMEWORK`
- ❖ `custom_permission.py` inherited from `rest_framework.permissions.BasePermission`
- ❖ Enforce at `views.py`
 - ❖ `permission_classes` tuple

Create Users

- ❖ `$ python3 manage.py shell`
- ❖ `>>> from django.contrib.auth.models
import User`
- ❖ `>>> user =
User.objects.create_user('john',
'john@abc.com', 'johnpwd')`
- ❖ Check the created user in the `auth_user` table

Token-Based Authentication

- ❖ A new model named Token
 - ❖ `rest_framework.authtoken`
- ❖ `settings.py`
 - ❖ `INSTALLED_APPS` with `rest_framework.authtoken`

Create Token

- ❖ `$ python3 manage.py shell`
- ❖ `>>> from rest_framework.authtoken.models
import Token`
- ❖ `>>> from django.contrib.auth.models import
User`
- ❖ `>>> user = User.objects.get(username='john')`
- ❖ `>>> token = Token.objects.create(user=user)`
- ❖ `>>> print(token.key)`
- ❖ `8c756f4db3056543a1075b09f5340674e194cfb7`

Postman Authorization Header

❖ `Authorization: Token PASTE_TOKEN_HERE`

JSON Web Token

- ❖ For securely transmitting information as JSON object
- ❖ **Authentication:** Once the user is logged in, each subsequent request will include the JWT, allowing the user to access routes, services, and resources that are permitted with that token. Single Sign On is a feature that widely uses JWT nowadays, because of its small overhead and its ability to be easily used across different domains.
- ❖ **Information Exchange:** JSON Web Tokens are a good way of securely transmitting information between parties. Because JWTs can be signed.

Django REST with JWT

- ❖ `$ sudo pip3 install djangorestframework-jwt`
- ❖ `settings.py`
- ❖

```
REST_FRAMEWORK = {  
    'DEFAULT_AUTHENTICATION_CLASSES':  
    ('rest_framework_jwt.authentication.JSONWebTokenAuthentication',)  
}
```

JWT Specific URL

- ❖ `from rest_framework_jwt.views import obtain_jwt_token`
- ❖ `url(`
 `r'^jwt-token$',`
 `obtain_jwt_token`
`)`
- ❖ POST request with username and password to get a fresh token