* All required packages in requirements.txt file

Install required packages using “ pip install –r requirements.txt “

1. Backend

* Using Python language, backend framework Django, Restful API: django rest framework
* Create django project: django startproject destApp
* Run server backend: use manage.py file to run server with default port 8000

python backend/destApp/manage.py runserver

(custom port: python backend/destApp/manage.py runserver 8888)

Folder: backend/destApp

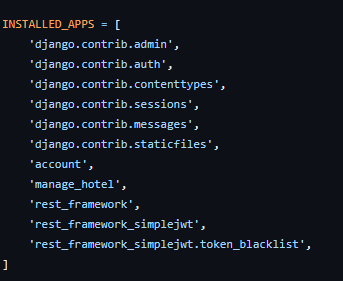
* 1. Settings file of backend
* File: backend/desApp/destApp/settings.py
* In Django project, each module is defined as django app

Example: hotel management system contains user management, room management, booking management. We can define each part as app to code easily

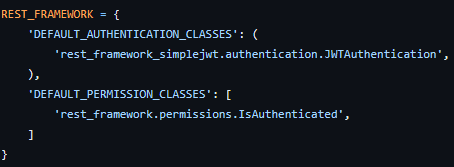
* Create django app: django startapp <app\_name>

Example: django startapp account

Then register app in INSTALLED\_APPS of settings.py

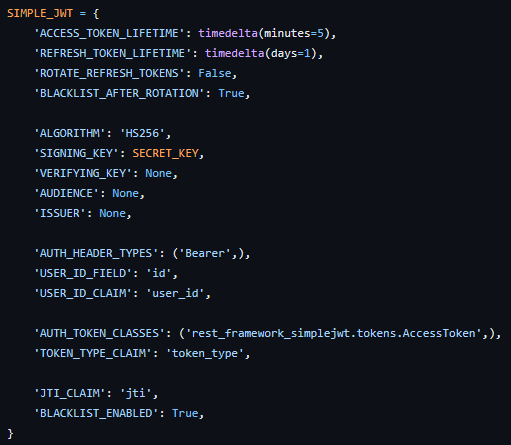


* INSTALLED\_APPS in settings.py: register app to use in project
  1. Authentication and Permission
* Settings for authentication and permission with Django Rest Framework API in settings.py



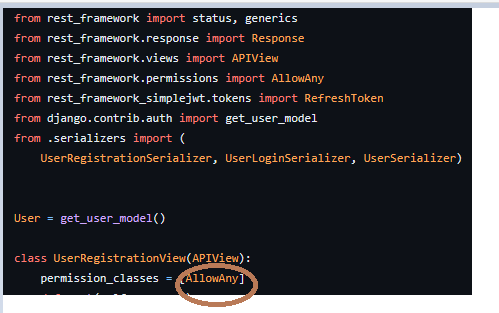
* Use JWT token to authen in API: JWTAuthentication

Settings of JWT token: use djangorestframework-simplejwt package then adding setting in settings.py such as access token lifetime, refresh token lifetime, option to enable refresh token blacklists (It prevents the refresh token from being used to obtain the Access Token anymore. Use when using the Logout API)



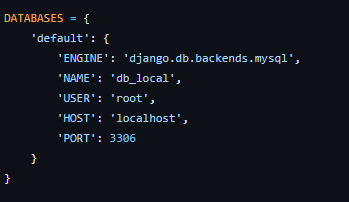
* Default permission is IsAuthenticated, user need to login first then using other function APIs
* Login, Register APIs do not use permission, so all of users can use these APIs to login or register account

In backend/destApp/account/views.py file, use AllowAny of django rest framework permissions



1. Database

* Install MySQL
* This project uses XAMPP to setup local database
* First connect to database admin page to create database to use in this project
* Then connect backend with database by setting in settings.py



* + NAME: database name
  + USER: user who has permission to access this database. In MySQL server, create user to use with the database
  + HOST: host of mysql server (can use with IP like as ‘127.0.0.1’)
  + PORT: port of mysql server (3306 is MySQL default port)
  + PASSWORD: if user need to authorize with database by password, add PASSWORD: ‘<your\_password>’ to settings.py

1. Frontend

* Using python tkinter library
* File: frontend/app.py