**Django:**

Django is a high-level Python Web framework that encourages rapid development and clean pragmatic design. A Web framework is a set of components that provide a standard way to develop websites fast and easily.

Django MVT (Model View Template):





a user **requests** for a resource to the Django, Django works as a controller and check to the available resource in URL.

If URL maps, **a view is called** that interact with model and template, it renders a template.

Django responds back to the user and sends a template as a **response**.

Advantages/Feature of Django:

* Rapid Development
* Secure
* Scalable
* Fully loaded
* Object-Relational Mapping (ORM) Support
* Administration GUI

Project Setup:

mkdir django\_project

cd django\_project

# Create a virtual environment

python -m venv env

# For Linux

source env/bin/activate

# For Windows use `env\Scripts\activate`

# Install Django and Django REST framework into the virtual environment

pip install django

pip install djangorestframework

# Set up a new project with a single application

django-admin startproject django\_project. # Note the trailing '.' character

cd django\_project

django-admin startapp user

cd ..

Project Layout:

./django\_rest\_framework

./django\_rest\_framework/\_\_init\_\_.py

./django\_rest\_framework/settings.py

./django\_rest\_framework/urls.py

./django\_rest\_framework/wsgi.py

./docs

./README.md

./manage.py

./django\_rest\_framework/user

./django\_rest\_framework/user/migrations

./django\_rest\_framework/user/migrations/\_\_init\_\_.py

./django\_rest\_framework/user/models.py

./django\_rest\_framework/user/\_\_init\_\_.py

./django\_rest\_framework/user/apps.py

./django\_rest\_framework/user/admin.py

./django\_rest\_framework/user/tests.py

./django\_rest\_framework/user/views.py

Connect Django with MySQL:

Install - pip install mysqlclient

DATABASES = {  
 'default': {  
 'ENGINE': 'django.db.backends.mysql',  
 'NAME': 'db\_django\_rf',  
 'USER': 'root',  
 'PASSWORD': 'root',  
 'HOST': 'localhost',  
 'PORT': 3306,  
 'OPTIONS': {  
 'init\_command': ''  
 }  
 }  
}

Database Migration:

python3 manage.py migrate

Set SuperUser:

python manage.py createsuperuser