

```
!pip install django
!pip install djangorestframework
!pip install django-cors-headers
!pip install gunicorn
!pip install sqlite-web # For database management
```

```
Collecting django
  Downloading Django-5.1.5-py3-none-any.whl.metadata (4.2 kB)
Collecting asgiref<4,>=3.8.1 (from django)
  Downloading asgiref-3.8.1-py3-none-any.whl.metadata (9.3 kB)
Requirement already satisfied: sqlparse>=0.3.1 in /usr/local/lib/python3.11/dist-packages (from django) (0.5.3)
Downloading Django-5.1.5-py3-none-any.whl (8.3 MB)
----- 8.3/8.3 MB 47.4 MB/s eta 0:00:00
Downloading asgiref-3.8.1-py3-none-any.whl (23 kB)
Installing collected packages: asgiref, django
Successfully installed asgiref-3.8.1 django-5.1.5
Collecting djangorestframework
  Downloading djangorestframework-3.15.2-py3-none-any.whl.metadata (10 kB)
Requirement already satisfied: django>=4.2 in /usr/local/lib/python3.11/dist-packages (from djangorestframework) (5.1.5)
Requirement already satisfied: asgiref<4,>=3.8.1 in /usr/local/lib/python3.11/dist-packages (from django>=4.2->djangorestframework) (3.8.1)
Requirement already satisfied: sqlparse>=0.3.1 in /usr/local/lib/python3.11/dist-packages (from django>=4.2->djangorestframework) (0.5.3)
Downloading djangorestframework-3.15.2-py3-none-any.whl (1.1 MB)
----- 1.1/1.1 MB 11.7 MB/s eta 0:00:00
Installing collected packages: djangorestframework
Successfully installed djangorestframework-3.15.2
Collecting django-cors-headers
  Downloading django_cors_headers-4.6.0-py3-none-any.whl.metadata (16 kB)
Requirement already satisfied: asgiref>=3.6 in /usr/local/lib/python3.11/dist-packages (from django-cors-headers) (3.8.1)
Requirement already satisfied: django>=4.2 in /usr/local/lib/python3.11/dist-packages (from django-cors-headers) (5.1.5)
Requirement already satisfied: sqlparse>=0.3.1 in /usr/local/lib/python3.11/dist-packages (from django>=4.2->django-cors-headers) (0.5.3)
Downloading django_cors_headers-4.6.0-py3-none-any.whl (12 kB)
Installing collected packages: django-cors-headers
Successfully installed django-cors-headers-4.6.0
Collecting gunicorn
  Downloading gunicorn-23.0.0-py3-none-any.whl.metadata (4.4 kB)
Requirement already satisfied: packaging in /usr/local/lib/python3.11/dist-packages (from gunicorn) (24.2)
Downloading gunicorn-23.0.0-py3-none-any.whl (85 kB)
----- 85.0/85.0 kB 2.1 MB/s eta 0:00:00
Installing collected packages: gunicorn
Successfully installed gunicorn-23.0.0
Collecting sqlite-web
  Downloading sqlite-web-0.6.4.tar.gz (807 kB)
----- 807.6/807.6 kB 10.6 MB/s eta 0:00:00
  Preparing metadata (setup.py) ... done
Requirement already satisfied: flask in /usr/local/lib/python3.11/dist-packages (from sqlite-web) (3.1.0)
Requirement already satisfied: peewee>=3.0.0 in /usr/local/lib/python3.11/dist-packages (from sqlite-web) (3.17.8)
Requirement already satisfied: pygments in /usr/local/lib/python3.11/dist-packages (from sqlite-web) (2.18.0)
Requirement already satisfied: Werkzeug>=3.1 in /usr/local/lib/python3.11/dist-packages (from flask->sqlite-web) (3.1.3)
Requirement already satisfied: Jinja2>=3.1.2 in /usr/local/lib/python3.11/dist-packages (from flask->sqlite-web) (3.1.5)
Requirement already satisfied: itsdangerous>=2.2 in /usr/local/lib/python3.11/dist-packages (from flask->sqlite-web) (2.2.0)
Requirement already satisfied: click>=8.1.3 in /usr/local/lib/python3.11/dist-packages (from flask->sqlite-web) (8.1.8)
Requirement already satisfied: blinker>=1.9 in /usr/local/lib/python3.11/dist-packages (from flask->sqlite-web) (1.9.0)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.11/dist-packages (from Jinja2>=3.1.2->flask->sqlite-web) (3.0.2)
Building wheels for collected packages: sqlite-web
  Building wheel for sqlite-web (setup.py) ... done
  Created wheel for sqlite-web: filename=sqlite_web-0.6.4-py3-none-any.whl size=820265 sha256=0c866a17f25e0c570a07b6d407f30b229bbdce3a9a
  Stored in directory: /root/.cache/pip/wheels/88/d7/90/ffc8c9671fb6ea1a964d7d6803bf15e7f4ff3a7089b4933a5a
Successfully built sqlite-web
Installing collected packages: sqlite-web
Successfully installed sqlite-web-0.6.4
```

```
!django-admin startproject social_media
%cd social_media
!django-admin startapp main_app
```

```
/content/social_media
```

```
%writefile social_media/settings.py
from pathlib import Path
```

```
BASE_DIR = Path(__file__).resolve().parent.parent
SECRET_KEY = 'your-secret-key'
DEBUG = True
ALLOWED_HOSTS = ['*']
```

```
INSTALLED_APPS = [
    'django.contrib.admin',
    'django.contrib.auth',
```


```

'django.contrib.contenttypes',
'django.contrib.sessions',
'django.contrib.messages',
'django.contrib.staticfiles',
'rest_framework',
'corsheaders',
'main_app',
]

MIDDLEWARE = [
'django.middleware.security.SecurityMiddleware',
'django.contrib.sessions.middleware.SessionMiddleware',
'django.middleware.common.CommonMiddleware',
'django.middleware.csrf.CsrfViewMiddleware',
'django.contrib.auth.middleware.AuthenticationMiddleware',
'django.contrib.messages.middleware.MessageMiddleware',
'django.middleware.clickjacking.XFrameOptionsMiddleware',
'corsheaders.middleware.CorsMiddleware',
]

ROOT_URLCONF = 'social_media.urls'
WSGI_APPLICATION = 'social_media.wsgi.application'
DATABASES = {
'default': {
'ENGINE': 'django.db.backends.sqlite3',
'NAME': BASE_DIR / 'db.sqlite3',
}
}
CORS_ALLOW_ALL_ORIGINS = True

```

 Overwriting social_media/settings.py

```


%%writefile main_app/models.py
from django.db import models
from django.contrib.auth.models import User

class Post(models.Model):
    user = models.ForeignKey(User, on_delete=models.CASCADE)
    content = models.TextField()
    timestamp = models.DateTimeField(auto_now_add=True)

class Comment(models.Model):
    post = models.ForeignKey(Post, on_delete=models.CASCADE)
    user = models.ForeignKey(User, on_delete=models.CASCADE)
    text = models.TextField()
    timestamp = models.DateTimeField(auto_now_add=True)

class Like(models.Model):
    post = models.ForeignKey(Post, on_delete=models.CASCADE)
    user = models.ForeignKey(User, on_delete=models.CASCADE)

```

 Overwriting main_app/models.py

```

%%writefile main_app/views.py
from rest_framework.response import Response
from rest_framework.decorators import api_view
from .models import Post, Comment, Like
from django.contrib.auth.models import User
from django.shortcuts import get_object_or_404

@api_view(['GET'])
def get_posts(request):
    posts = Post.objects.all().values()
    return Response(posts)

@api_view(['POST'])
def create_post(request):
    user = request.user
    content = request.data.get('content')
    Post.objects.create(user=user, content=content)
    return Response({"message": "Post created!"})

@api_view(['POST'])
def like_post(request, post_id):
    post = get_object_or_404(Post, id=post_id)
    user = request.user

```

➡ Overwriting main_app/views.py

```
urlpatterns = [
    path('admin/', admin.site.urls),
    path('posts/', get_posts),
    path('create_post/', create_post),
    path('like_post/<int:post_id>/', like_post),
]
```

➡ Overwriting social_media/urls.py

```
NameError: name '_file_' is not defined. Did you mean: '__file__'?
```

```
!pip install flask-ngrok
```

```
Collecting flask-ngrok
  Downloading flask_ngrok-0.0.25-py3-none-any.whl.metadata (1.8 kB)
Requirement already satisfied: Flask>=0.8 in /usr/local/lib/python3.11/dist-packages (from flask-ngrok) (3.1.0)
Requirement already satisfied: requests in /usr/local/lib/python3.11/dist-packages (from flask-ngrok) (2.32.3)
Requirement already satisfied: Werkzeug>=3.1 in /usr/local/lib/python3.11/dist-packages (from Flask>=0.8->flask-ngrok) (3.1.3)
Requirement already satisfied: Jinja2>=3.1.2 in /usr/local/lib/python3.11/dist-packages (from Flask>=0.8->flask-ngrok) (3.1.5)
Requirement already satisfied: itsdangerous>=2.2 in /usr/local/lib/python3.11/dist-packages (from Flask>=0.8->flask-ngrok) (2.2.0)
Requirement already satisfied: click>=8.1.3 in /usr/local/lib/python3.11/dist-packages (from Flask>=0.8->flask-ngrok) (8.1.8)
Requirement already satisfied: blinker>=1.9 in /usr/local/lib/python3.11/dist-packages (from Flask>=0.8->flask-ngrok) (1.9.0)
Requirement already satisfied: charset-normalizer<4,>=2 in /usr/local/lib/python3.11/dist-packages (from requests->flask-ngrok) (3.4.1)
Requirement already satisfied: idna<4,>=2.5 in /usr/local/lib/python3.11/dist-packages (from requests->flask-ngrok) (3.10)
Requirement already satisfied: urllib3<3,>=1.21.1 in /usr/local/lib/python3.11/dist-packages (from requests->flask-ngrok) (2.3.0)
Requirement already satisfied: certifi>=2017.4.17 in /usr/local/lib/python3.11/dist-packages (from requests->flask-ngrok) (2024.12.14)
Requirement already satisfied: MarkupSafe>=2.0 in /usr/local/lib/python3.11/dist-packages (from Jinja2>=3.1.2->Flask>=0.8->flask-ngrok)
Downloading flask_ngrok-0.0.25-py3-none-any.whl (3.1 kB)
Installing collected packages: flask-ngrok
Successfully installed flask-ngrok-0.0.25
```