Assignment_04

Name - Shravani Sandeep Raut

SE - 48

Steps-
1. Make project directory
   mkdir Library_Management

2. Navigate to the directory
   cd Library_Management

3. Install dependencies like
   pip install django djangorestframework

4. Start Django project
   django - admin startproject Library_Management

5. Create app inside project
   python manage.py startapp library

6. In *Library_Management/settings.py* append the new apps in INSTALLED_APPS
   INSTALLED_APPS = [....
   'rest_framework',
   'library',
    'api',
   ]

7. In *library/models.py*

```python
from django.db import models

class Book(models.Model):
    title = models.CharField(max_length=200)
    isbn = models.CharField(max_length=13, unique=True)

    def __str__(self):
        return self.title
```

8. Create a folder api
In *api/serializers.py*

```python
from rest_framework import serializers
from library.models import Book

class BookSerializer(serializers.ModelSerializer):
    class Meta:
        model = Book
        fields = '__all__'
```

9. In *library/views.py*

```python
from rest_framework import generics
from library.models import Book
from api.serializers import BookSerializer

class ListCreateAPIView(generics.ListCreateAPIView):
    queryset = Book.objects.all()
    serializer_class = BookSerializer

class RetrieveUpdateDestroyAPIView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Book.objects.all()
    serializer_class = BookSerializer
```

10. In *api/urls.py*

```python
#urls.py
from django.urls import path
from library.views import (ListCreateAPIView,RetrieveUpdateDestroyAPIView,)

urlpatterns = [
    path('', ListCreateAPIView.as_view(), name='book-list-create'),
    path('books/<int:pk>/', RetrieveUpdateDestroyAPIView.as_view(), name='book-detail'),
]
```

11. In *library/urls.py*

```python
from django.urls import path
from library.views import BookListCreateView, BookDetailView

urlpatterns = [
    path('books/', BookListCreateView.as_view(), name='book-list-create'),
    path('books/<int:pk>/', BookDetailView.as_view(), name='book-detail'),
]
```

12. In *Library_Management/urls.py*

```python
from django.contrib import admin
from django.urls import path, include
urlpatterns = [
    path('admin/', admin.site.urls),
    path('', include('api.urls')),
]
```

13. Make migrations
python manage.py makemigrations library
python manage.py migrate

14. Finally run the server
python manage.py runserver

Output-

List Create Api

List Create Api

OPTIONS GET ▾

GET /

```
HTTP 200 OK
Allow: GET, POST, HEAD, OPTIONS
Content-Type: application/json
Vary: Accept

[
    {
        "id": 1,
        "title": "Wings of Fire",
        "isbn": "9788173711466"
    },
    {
        "id": 2,
        "title": "Making India Awesome",
        "isbn": "9788129142146"
    },
    {
        "id": 3,
        "title": "Rich Dad Poor Dad",
        "isbn": "9781612680194"
    }
]
```

Raw data   HTML form

Title   Rich Dad Poor Dad

Isbn   9781612680194

POST