

## SE(AI&DS)-Bhavya Damani 10

```
In [ ]: ### models.py
from django.db import models

class Author(models.Model):
    name = models.CharField(max_length=100)

    def __str__(self):
        return self.name

class Book(models.Model):
    title = models.CharField(max_length=200)
    isbn = models.CharField(max_length=13, unique=True)
    author = models.ForeignKey(Author, on_delete=models.CASCADE)

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

```
In [ ]: ### serializers.py
from rest_framework import serializers
from .models import Author, Book

class AuthorSerializer(serializers.ModelSerializer):
    class Meta:
        model = Author
        fields = '__all__'

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

```
In [ ]: ### urls.py
from django.urls import path
from .views import AuthorListCreateView, AuthorDetailView, BookListCreateView

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

```
In [ ]: ### views.py
from django.shortcuts import render
```

```

from rest_framework import generics
from .models import Author, Book
from .serializers import AuthorSerializer, BookSerializer
from django.http import JsonResponse

# Author Views
class AuthorListCreateView(generics.ListCreateAPIView):
    queryset = Author.objects.all()
    serializer_class = AuthorSerializer

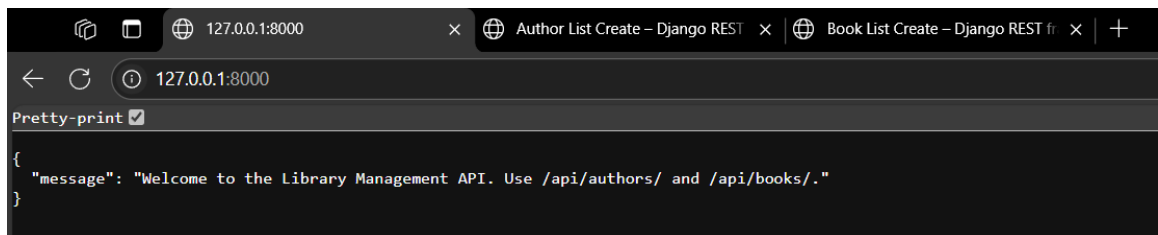
class AuthorDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Author.objects.all()
    serializer_class = AuthorSerializer

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

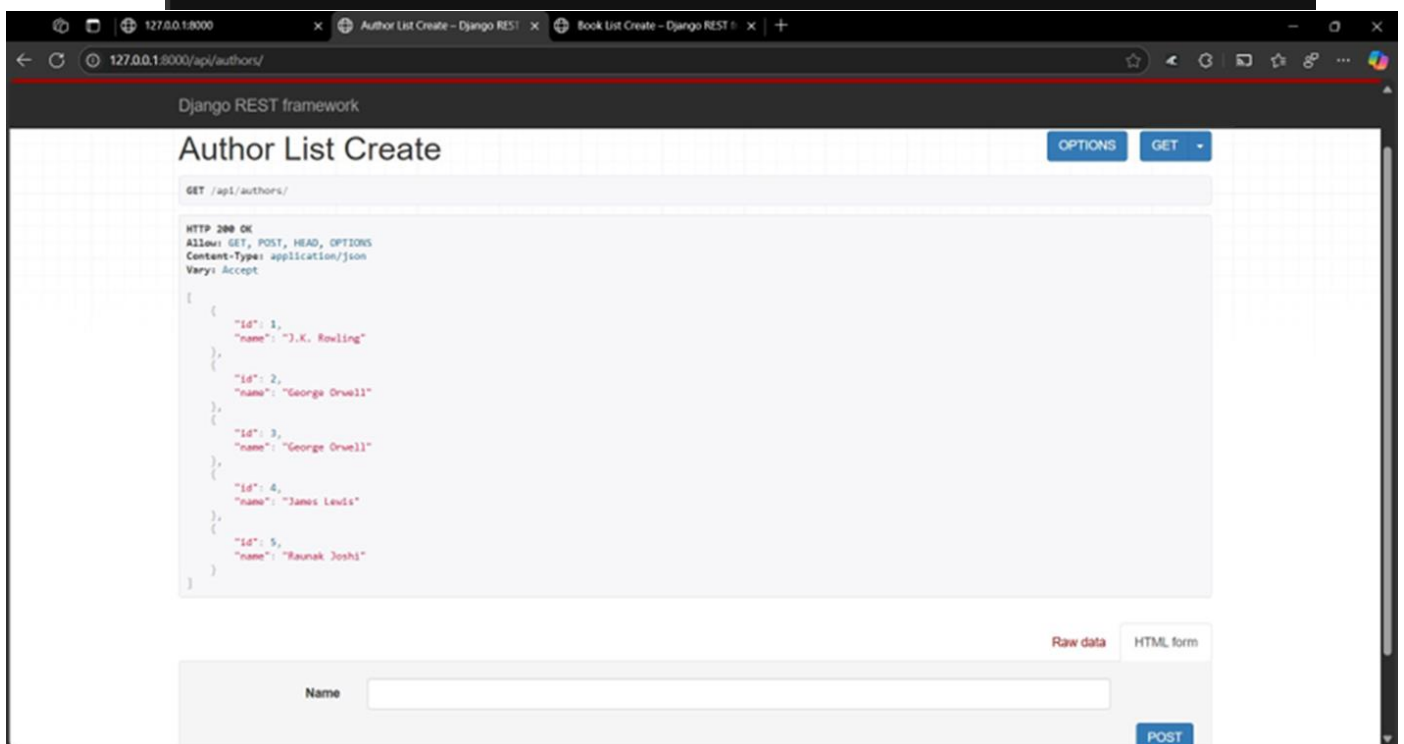
class BookDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Book.objects.all()
    serializer_class = BookSerializer

def home_view(request):
    return JsonResponse({"message": "Welcome to the Library Management API."})

```



A screenshot of a web browser window. The address bar shows the URL `127.0.0.1:8000`. The page content displays a JSON response: `{"message": "Welcome to the Library Management API. Use /api/authors/ and /api/books/."}`. The browser has multiple tabs open, including "Author List Create - Django REST" and "Book List Create - Django REST".



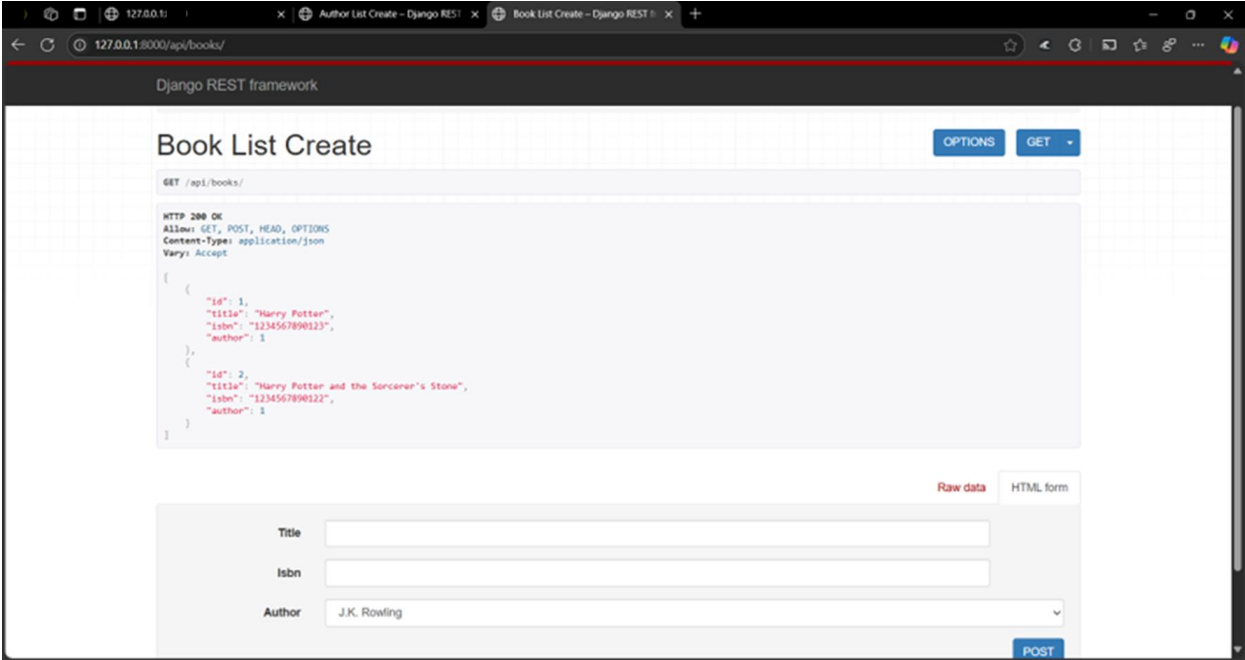
A screenshot of the Django REST framework API explorer. The browser address bar shows `127.0.0.1:8000/api/authors/`. The page title is "Author List Create". The method selected is "GET /api/authors/". The response is displayed in a light blue box, showing a JSON array of author objects:

```

{
  {
    "id": 1,
    "name": "J.K. Rowling"
  },
  {
    "id": 2,
    "name": "George Orwell"
  },
  {
    "id": 3,
    "name": "George Orwell"
  },
  {
    "id": 4,
    "name": "James Lewis"
  },
  {
    "id": 5,
    "name": "Raunak Joshi"
  }
}

```

Below the response, there are tabs for "Raw data" and "HTML form". At the bottom, there is a form with a "Name" input field and a "POST" button.



This notebook was converted with [convert.ploomber.io](https://convert.ploomber.io)