

# Microservices with Django Framework

K.SASI KIRAN

MCA(R)

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## 1. Install Django framework:

```
pip install django-rest-framework
```

## 2. Create a Sample App

```
django-admin startproject countries
```

```
python manage.py startapp currency_country
```

## 3. Include the code block models.py

```
from django.db import models

class Country(models.Model):
    country_name = models.CharField(max_length=20)
    local_currency = models.CharField(max_length=20)
    added_on = models.DateTimeField(auto_now_add=True)

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

## 4. Create a superuser account

```
python manage.py createsuperuser
```

## 5. Change the settings.py and include the following

```
INSTALLED_APPS = [  
    'django.contrib.admin',  
    'django.contrib.auth',  
    'django.contrib.contenttypes',  
    'django.contrib.sessions',  
    'django.contrib.messages',  
    'django.contrib.staticfiles',  
    'currency_country',  
    "rest_framework",  
]
```

## 6. Create a new file admin.py

```
from django.contrib import admin  
from .models import Country  
admin.site.register(Country)
```

## 7. Create a new file serializers.py

```
from rest_framework import serializers  
from .models import Country  
  
class CountrySerializer(serializers.ModelSerializer):  
    class Meta:  
        model = Country # this is the model that is being serialized  
        fields = ('country_name', 'local_currency')
```

## 8. Change the views.py

```
from django.shortcuts import render  
from rest_framework import status  
from rest_framework.decorators import api_view  
from rest_framework.response import Response  
from .models import Country
```

```

from .serializers import CountrySerializer

@api_view(['GET', 'POST'])
def country(request):

    if request.method == 'GET': # user requesting data
        snippets = Country.objects.all()
        serializer = CountrySerializer(snippets, many=True)
        return Response(serializer.data)

    elif request.method == 'POST': # user posting data
        serializer = CountrySerializer(data=request.data)
        if serializer.is_valid():
            serializer.save() # save to db
            return Response(serializer.data,
status=status.HTTP_201_CREATED)
        return Response(serializer.errors,
status=status.HTTP_400_BAD_REQUEST)
# Create your views here.

```

## 9. Configure urls.py

```

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

```

## 10. Create a new urls.py in the folder currency\_country

```
from django.urls import path
from .views import country

urlpatterns = [
    path('country/', country, name="countries")
]
```

## 11. Final step:

Run the App:

python manage.py makemigrations

python manage.py migrate

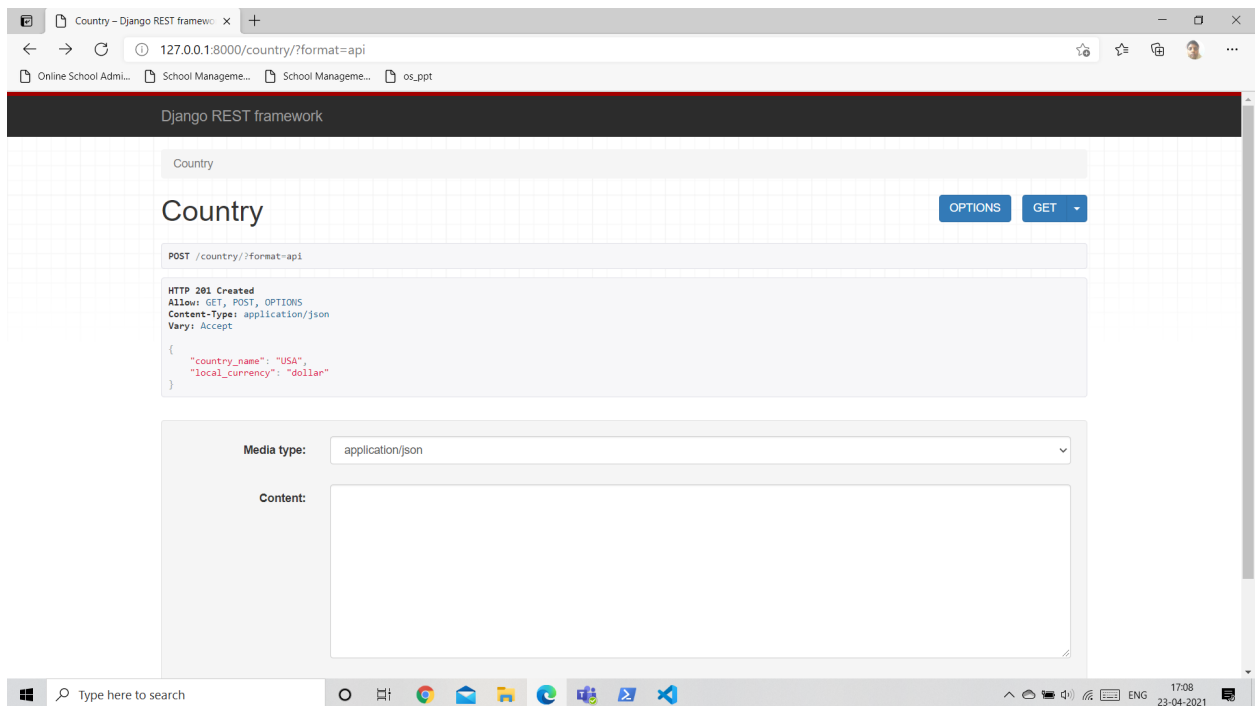
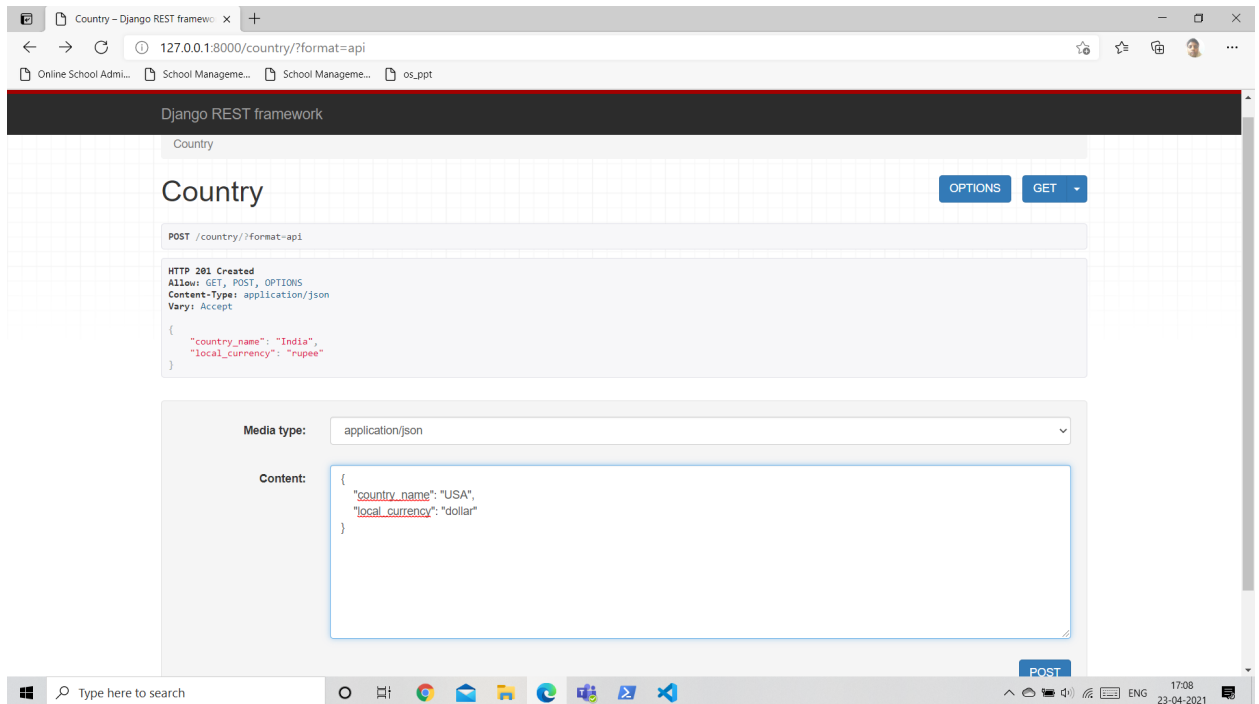
python manage.py runserver

## 12. Output:

Run in the localhost:

<http://127.0.0.1:8000/country>

## Screenshots of the microservice program:



Country - Django REST framework

Country

Country

OPTIONS GET

OPTIONS /country/?format=api

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

```
{
  "name": "Country",
  "description": "",
  "renders": [
    "application/json",
    "text/html"
  ],
  "parsers": [
    "application/json",
    "application/x-www-form-urlencoded",
    "multipart/form-data"
  ]
}
```

Media type: application/json

Content:

127.0.0.1:8000/country/?format=json

```
[{"country_name": "India", "local_currency": "rupee"}, {"country_name": "USA", "local_currency": "dollar"}]
```

Country - Django REST framework

127.0.0.1:8000/country/?format=api

Country

OPTIONS GET

GET /country/?format=api

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

```
[
  {
    "country_name": "India",
    "local_currency": "rupee"
  },
  {
    "country_name": "USA",
    "local_currency": "dollar"
  }
]
```

Media type: application/json

Content:

Type here to search

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