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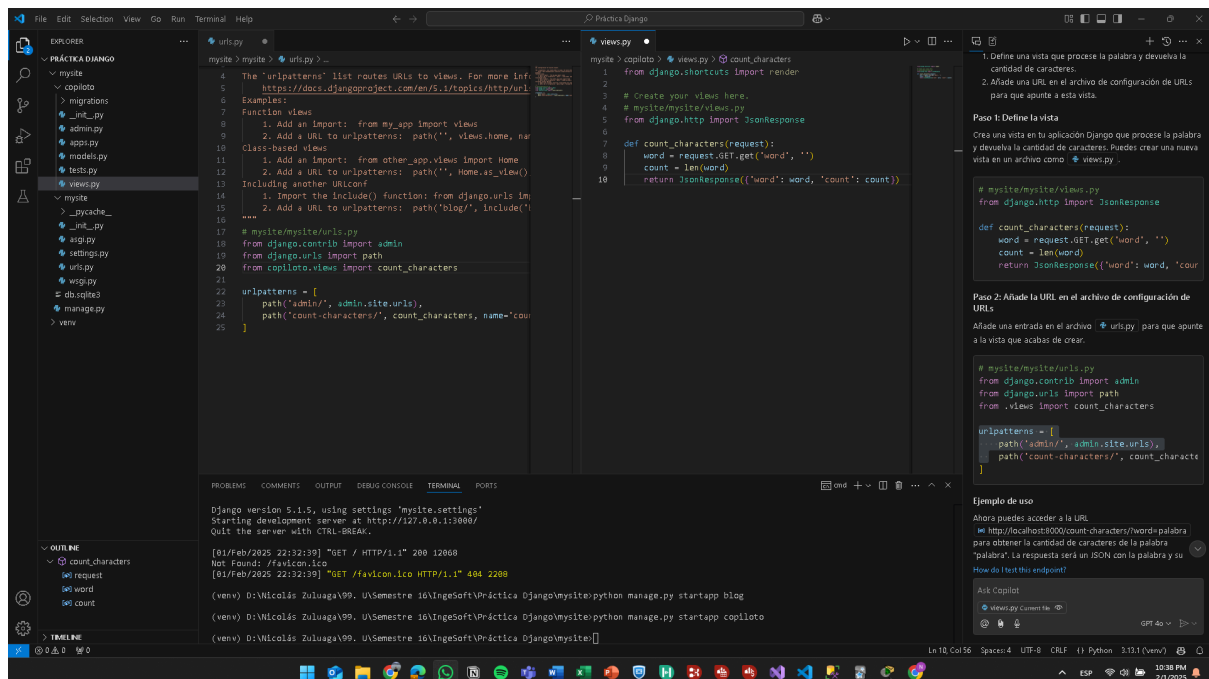
Universidad Nacional de Colombia - sede Bogotá
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Departamento de Sistemas e Industrial
Curso: Ingeniería de Software 1 (2016701)

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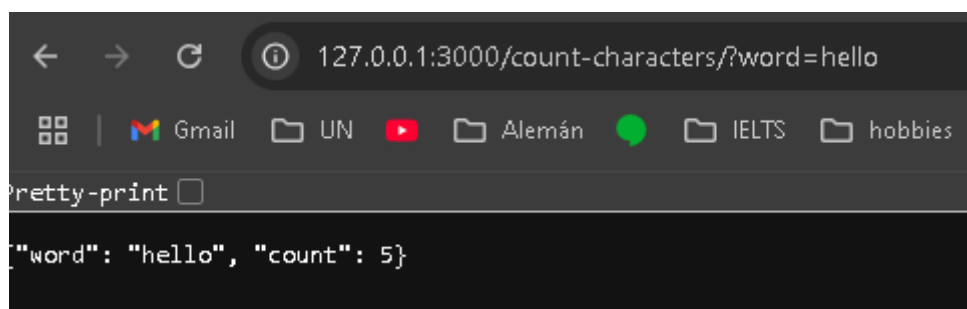
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Tarea - Uso copiloto

1. Una URL para obtener la cantidad de caracteres de una palabra con método GET, donde el usuario ingresa la palabra por URL



Respuesta:



- Una URL para obtener el factorial de un número con método POST (el usuario ingresa el número por medio del Body)

The screenshot shows a VS Code editor with three files open: `urls.py`, `views.py`, and `count_characters.py`. The `urls.py` file contains the following code:

```
4 The 'urlpatterns' list routes URLs to views. For more information please see:
5   https://docs.djangoproject.com/en/5.1/topics/http/urls/
6 Examples:
7 Function views
8     1. Add an import: from my_app import views
9     2. Add a URL to urlpatterns: path('', views.home, name='home')
10 Class-based views
11     1. Add an import: from other_app.views import Home
12     2. Add a URL to urlpatterns: path('', Home.as_view(), name='home')
13 Including another URLconf
14     1. Import the include() function: from django.urls import include, path
15     2. Add a URL to urlpatterns: path('blog/', include('blog.urls'))
16 """
17 # mysite/urls.py
18 from django.contrib import admin
19 from django.urls import path
20 from copilot.views import count_characters, factorial
21
22 urlpatterns = [
23     path('admin/', admin.site.urls),
24     path('count-characters/', count_characters, name='count_characters'),
25     path('factorial/', factorial, name='factorial'),
26 ]
```

The `views.py` file contains the following code:

```
4 # mysite/urls.py
5 from django.http import JsonResponse
6 from django.views.decorators.csrf import csrf_exempt
7 import json
8 import math
9
10 @csrf_exempt
11 def factorial(request):
12     if request.method == 'POST':
13         try:
14             data = json.loads(request.body)
15             number = data.get('number')
16             if number is not None and isinstance(number, int) and num
17                 result = math.factorial(number)
18                 return JsonResponse({'number': number, 'factorial': re
19             else:
20                 return JsonResponse({'error': 'Invalid input. Please s
21             except json.JSONDecodeError:
22                 return JsonResponse({'error': 'Invalid JSON.'}, status=400
23         else:
24             return JsonResponse({'error': 'Invalid request method.'}, stat
25
26 def count_characters(request):
27     word = request.GET.get('word', '')
28     count = len(word)
29     return JsonResponse({'word': word, 'count': count})
```

The `count_characters.py` file contains the following code:

```
4 # mysite/urls.py
5 from django.http import JsonResponse
6 from django.views.decorators.csrf import csrf_exempt
7 import json
8 import math
9
10 @csrf_exempt
11 def factorial(request):
12     if request.method == 'POST':
13         try:
14             data = json.loads(request.body)
15             number = data.get('number')
16             if number is not None and isinstance(number, int) and num
17                 result = math.factorial(number)
18                 return JsonResponse({'number': number, 'factorial': re
19             else:
20                 return JsonResponse({'error': 'Invalid input. Please s
21             except json.JSONDecodeError:
22                 return JsonResponse({'error': 'Invalid JSON.'}, status=400
23         else:
24             return JsonResponse({'error': 'Invalid request method.'}, stat
25
26 def count_characters(request):
27     word = request.GET.get('word', '')
28     count = len(word)
29     return JsonResponse({'word': word, 'count': count})
```

The terminal window shows the following output:

```
Django version 5.1.5, using settings 'mysite.settings'
Starting development server at http://127.0.0.1:3000/
Quit the server with CTRL-BREAK.
[01/Feb/2025 22:32:39] "GET / HTTP/1.1" 200 12068
Not Found: /favicon.ico
[01/Feb/2025 22:32:39] "GET /favicon.ico HTTP/1.1" 404 2208
(venv) D:\Nicolás Zuluaga\99. U\Semestre 16\IngeSoft\Práctica Django\mysite>python manage.py startapp blog
(venv) D:\Nicolás Zuluaga\99. U\Semestre 16\IngeSoft\Práctica Django\mysite>python manage.py startapp copilot
(venv) D:\Nicolás Zuluaga\99. U\Semestre 16\IngeSoft\Práctica Django\mysite>
```

Respuesta:

```
(venv) D:\Nicolás Zuluaga\99. U\Semestre 16\IngeSoft\Práctica Django>curl -X POST "http://127.0.0.1:3000/factorial/" -H "Content-Type: application/json" -d '{"number": 5}'
{"number": 5, "factorial": 120}
(venv) D:\Nicolás Zuluaga\99. U\Semestre 16\IngeSoft\Práctica Django>
```