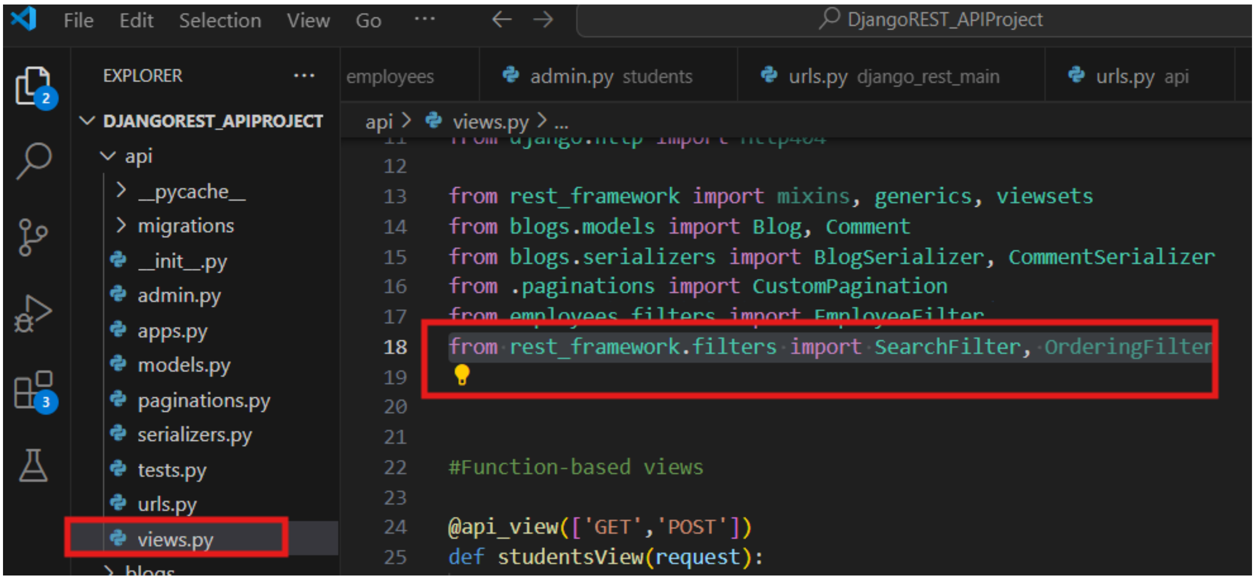
Topic: 17. DRF Ordering / Sorting

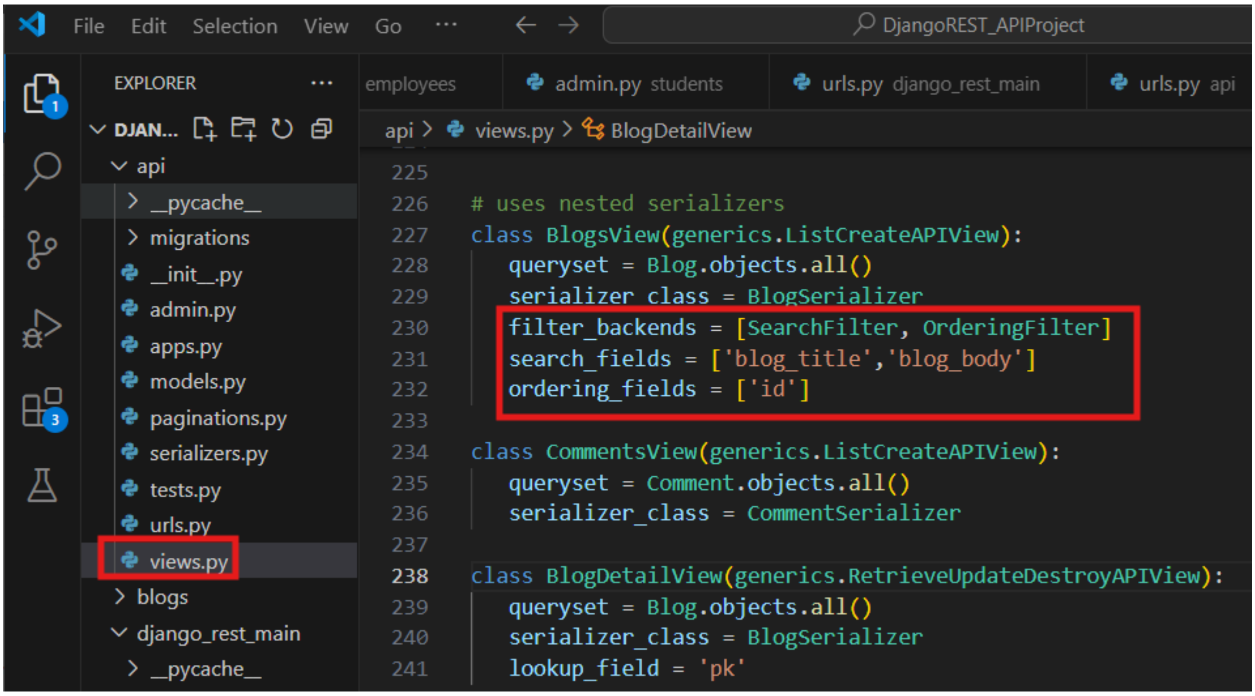
Speaker: Personal | Notebook: API Development using Django Framework

1. This comes from the REST_FRAMEWORK.FILTERS. Update the API\VIEWS.PY as:



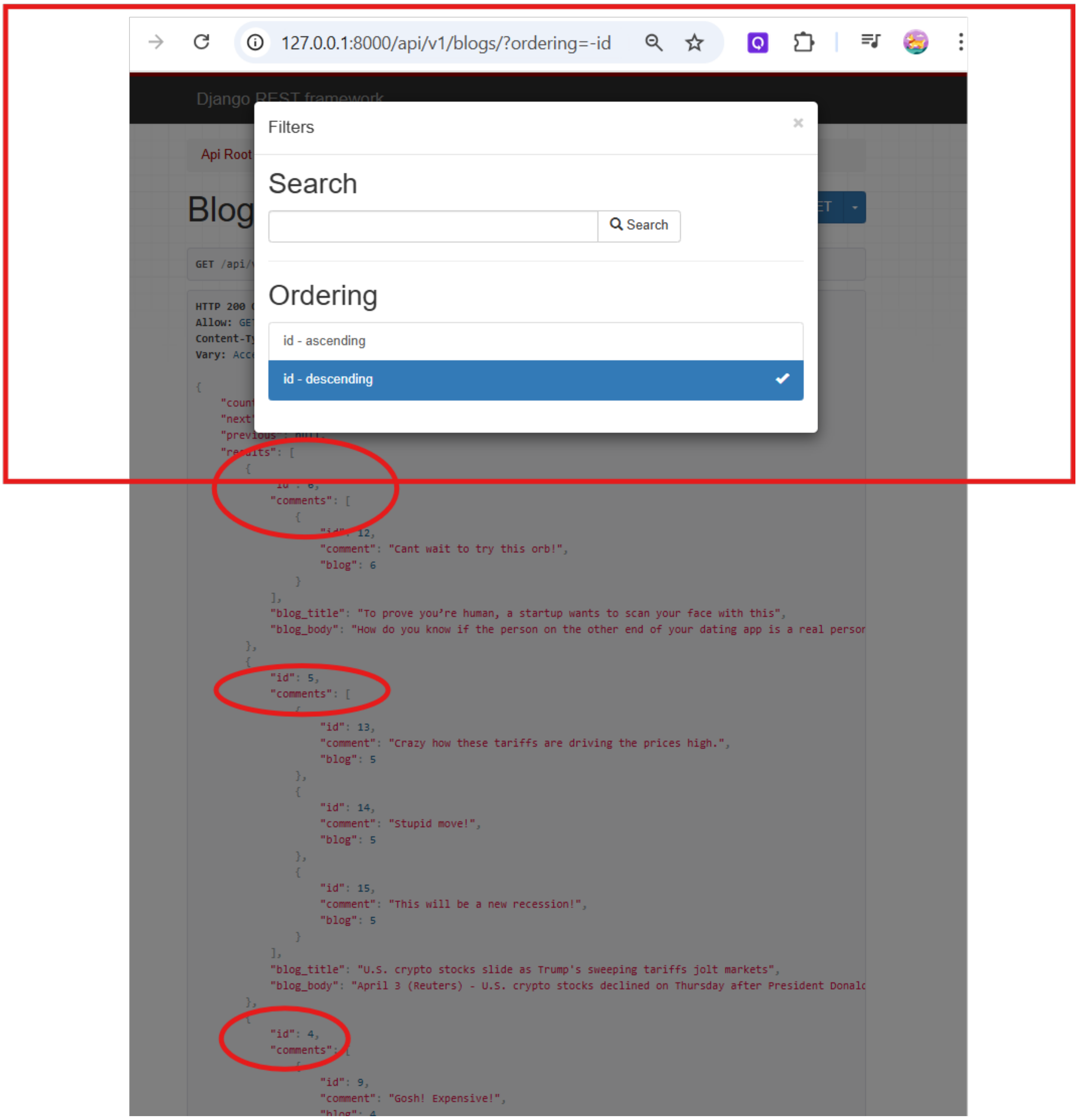
```
from django.http import Http404

from rest_framework import mixins, generics, viewsets
from blogs.models import Blog, Comment
from blogs.serializers import BlogSerializer, CommentSerializer
from .paginations import CustomPagination
from employees.filters import EmployeeFilter
from rest_framework.filters import SearchFilter, OrderingFilter



#Function-based views

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

Update the BlogsView class:



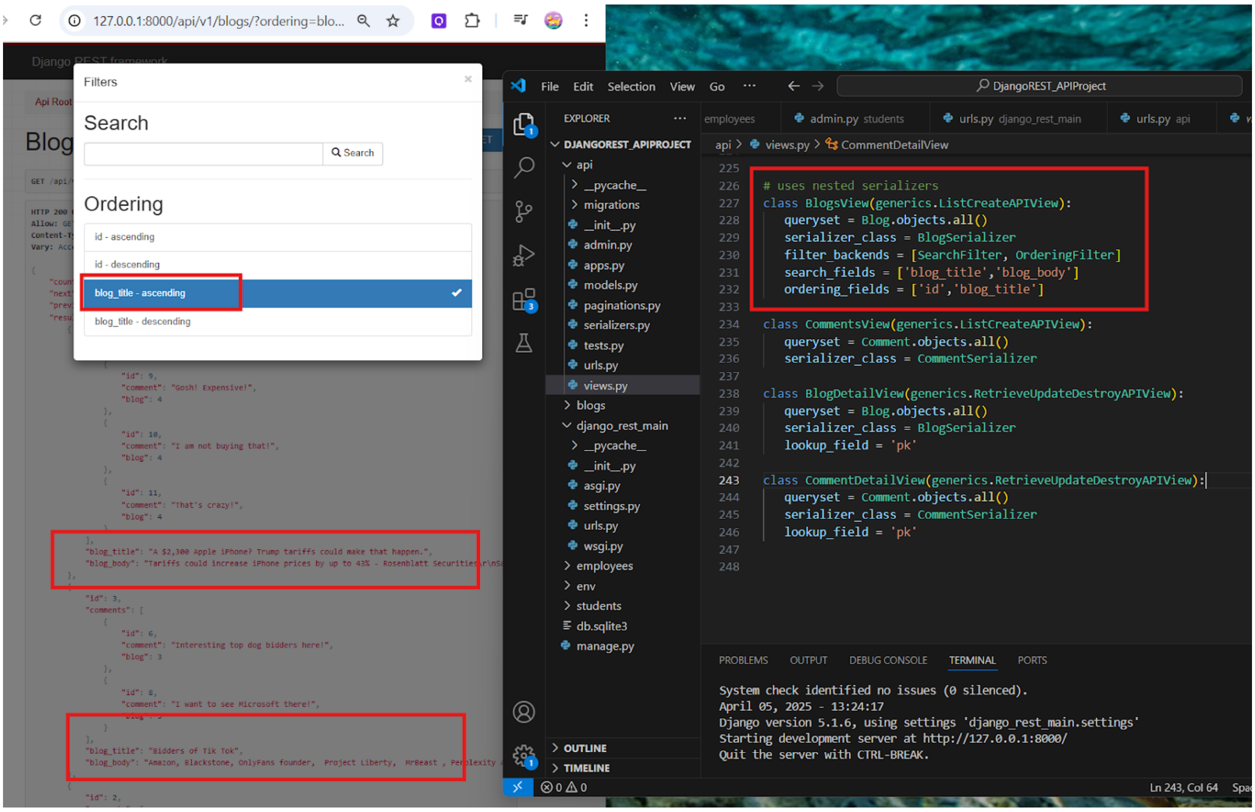
```

# uses nested serializers
class BlogsView(generics.ListCreateAPIView):
    queryset = Blog.objects.all()
    serializer_class = BlogSerializer
    filter_backends = [SearchFilter, OrderingFilter]
    search_fields = ['blog_title','blog_body']
    ordering_fields = ['id']

class CommentsView(generics.ListCreateAPIView):
    queryset = Comment.objects.all()
    serializer_class = CommentSerializer

class BlogDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Blog.objects.all()
    serializer_class = BlogSerializer
    lookup_field = 'pk'
```

2. Run your browser and you can view the IDs in ascending or descending order.



```
GET /api/

HTTP 200 
Allow: GE
Content-Ty
Vary: Acc

{
    "coun
    "next
    "previous": null,
    "results": [
        {
            "id": 6,
            "comments": [
                {
                    "id": 12,
                    "comment": "Cant wait to try this orb!",
                    "blog": 6
                }
            ],
            "blog_title": "To prove you’re human, a startup wants to scan your face with this",
            "blog_body": "How do you know if the person on the other end of your dating app is a real persor
        },
        {
            "id": 5,
            "comments": [
                {
                    "id": 13,
                    "comment": "Crazy how these tariffs are driving the prices high.",
                    "blog": 5
                },
                {
                    "id": 14,
                    "comment": "Stupid move!",
                    "blog": 5
                },
                {
                    "id": 15,
                    "comment": "This will be a new recession!",
                    "blog": 5
                }
            ],
            "blog_title": "U.S. crypto stocks slide as Trump's sweeping tariffs jolt markets",
            "blog_body": "April 3 (Reuters) - U.S. crypto stocks declined on Thursday after President Donalc
        },
        {
            "id": 4,
            "comments": [
                {
                    "id": 9,
                    "comment": "Gosh! Expensive!",
                    "blog": 4
```

3. You can also sort by blog_title:

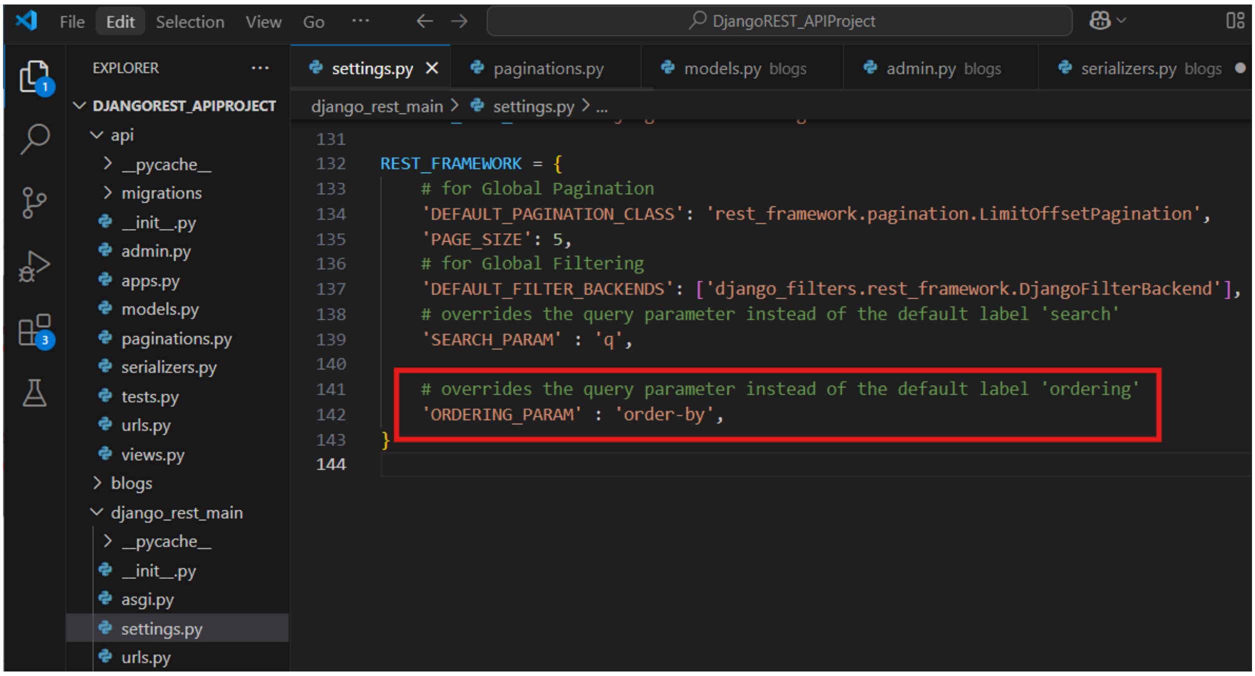


```
            {
                "id": 9,
                "comment": "Gosh! Expensive!",
                "blog": 4
            },
            {
                "id": 10,
                "comment": "I am not buying that!",
                "blog": 4
            },
            {
                "id": 11,
                "comment": "That's crazy!",
                "blog": 4
            }
        ],
        "blog_title": "A $2,300 Apple iPhone? Trump tariffs could make that happen.",
        "blog_body": "Tariffs could increase iPhone prices by up to 43% - Rosenblatt Securities\r\nSa
    },
    {
        "id": 3,
        "comments": [
            {
                "id": 6,
                "comment": "Interesting top dog bidders here!",
                "blog": 3
            },
            {
                "id": 8,
                "comment": "I want to see Microsoft there!",
                "blog": 3
            }
        ],
        "blog_title": "Bidders of Tik Tok",
        "blog_body": "Amazon, Blackstone, OnlyFans founder,  Project Liberty,  MrBeast , Perplexity A
    },
    {
        "id": 2,
```

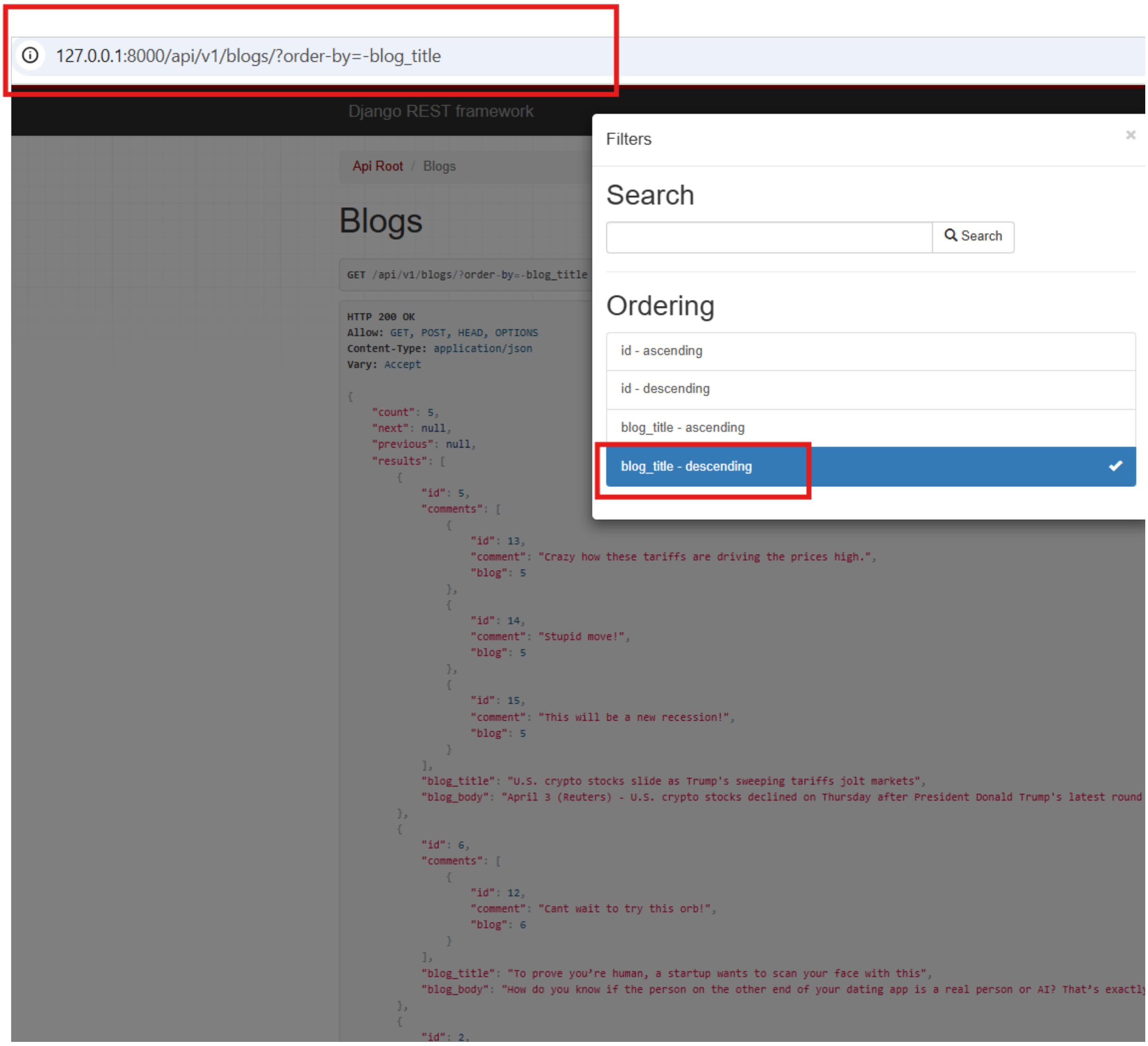
```python
# uses nested serializers
class BlogsView(generics.ListCreateAPIView):
    queryset = Blog.objects.all()
    serializer_class = BlogSerializer
    filter_backends = [SearchFilter, OrderingFilter]
    search_fields = ['blog_title','blog_body']
    ordering_fields = ['id','blog_title']

class CommentsView(generics.ListCreateAPIView):
    queryset = Comment.objects.all()
    serializer_class = CommentSerializer

class BlogDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Blog.objects.all()
    serializer_class = BlogSerializer
    lookup_field = 'pk'

class CommentDetailView(generics.RetrieveUpdateDestroyAPIView):
    queryset = Comment.objects.all()
    serializer_class = CommentSerializer
    lookup_field = 'pk'
```

```
System check identified no issues (0 silenced).
April 05, 2025 - 13:24:17
Django version 5.1.6, using settings 'django_rest_main.settings'
Starting development server at http://127.0.0.1:8000/
Quit the server with CTRL-BREAK.
```

4. Just like the SEARCH_PARAM where we override it with our own label, we can do the same thing for ordering, we use the ORDERING_PARAM. Add this in our SETTINGS.PY:



```python
REST_FRAMEWORK = {
    # for Global Pagination
    'DEFAULT_PAGINATION_CLASS': 'rest_framework.pagination.LimitOffsetPagination',
    'PAGE_SIZE': 5,
    # for Global Filtering
    'DEFAULT_FILTER_BACKENDS': ['django_filters.rest_framework.DjangoFilterBackend'],
    # overrides the query parameter instead of the default label 'search'
    'SEARCH_PARAM' : 'q',

    # overrides the query parameter instead of the default label 'ordering'
    'ORDERING_PARAM' : 'order-by',
}
```



127.0.0.1:8000/api/v1/blogs/?order-by=-blog_title

Blogs

Search

Ordering

- id - ascending
- id - descending
- blog_title - ascending
- blog_title - descending ✓

```
GET /api/v1/blogs/?order-by=-blog_title
```

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

{
    "count": 5,
    "next": null,
    "previous": null,
    "results": [
        {
            "id": 5,
            "comments": [
                {
                    "id": 13,
                    "comment": "Crazy how these tariffs are driving the prices high.",
                    "blog": 5
                },
                {
                    "id": 14,
                    "comment": "Stupid move!",
                    "blog": 5
                },
                {
                    "id": 15,
                    "comment": "This will be a new recession!",
                    "blog": 5
                }
            ],
            "blog_title": "U.S. crypto stocks slide as Trump's sweeping tariffs jolt markets",
            "blog_body": "April 3 (Reuters) - U.S. crypto stocks declined on Thursday after President Donald Trump's latest round
        },
        {
            "id": 6,
            "comments": [
                {
                    "id": 12,
                    "comment": "Cant wait to try this orb!",
                    "blog": 6
                }
            ],
            "blog_title": "To prove you’re human, a startup wants to scan your face with this",
            "blog_body": "How do you know if the person on the other end of your dating app is a real person or AI? That’s exactl
        },
        {
            "id": 2,
```