TRAINING DAY25 REPORT

22 JULY 2025

Example of Serializer in Django REST Framework:

Let's take an example project: **Daily Diary App**

Step 1: Create the Model

In your models.py:

```python
electronics_shop > accounts > models.py > ...
1    from django.db import models
2
3    class DiaryEntry(models.Model):
4        title = models.CharField(max_length=100)
5        content = models.TextField()
6        mood = models.CharField(max_length=20, default='Neutral')
7        created_at = models.DateTimeField(auto_now_add=True)
8
9        def _str_(self):
10           return self.title
11
```

Explanation:

- title → short heading of the diary entry.

- content → full diary text.

- mood → user's mood for that day.

- created_at → automatically stores creation time.

Step 2: Create the Serializer

In your serializers.py:

```python
from rest_framework import serializers
from .models import DiaryEntry
```

```python
class DiaryEntrySerializer(serializers.ModelSerializer):
    class Meta:
        model = DiaryEntry
        fields = '__all__'
```

- ModelSerializer automatically creates serializer fields from the model.

- It also provides default create() and update() methods.

So now, your DiaryEntry model can easily be converted to JSON and back.

Example of Serializer Output

When you send a GET request to your API endpoint, you'll get JSON data like this:

```json
{
  "id": 1,
  "title": "My First Entry",
  "content": "Today was a productive day. I learned Django REST Framework!",
  "mood": "Happy",
  "created_at": "2025-10-14T18:30:00Z"
}
```

This output is automatically generated using your serializer.

Step 4: Example of Using Serializer in Views

In your views.py:

```python
from rest_framework import viewsets
from .models import DiaryEntry
from .serializers import DiaryEntrySerializer

class DiaryEntryViewSet(viewsets.ModelViewSet):
    queryset = DiaryEntry.objects.all()
    serializer_class = DiaryEntrySerializer
```

Then connect this in urls.py:

```python
from django.urls import path, include
from rest_framework.routers import DefaultRouter
from .views import DiaryEntryViewSet

router = DefaultRouter()
router.register('diary', DiaryEntryViewSet)

urlpatterns = [
    path('api/', include(router.urls)),
]
```

What Happens:

- GET /api/diary/ → Lists all entries (serialized to JSON)

- POST /api/diary/ → Creates new entry (deserializes JSON → Python object)

- PUT /api/diary/1/ → Updates entry

- DELETE /api/diary/1/ → Deletes entry