



CloudAcademy

Django Rest Framework - Tips & Tricks

About Me



- Backend developer @ Cloud Academy
- Working in Python since 2008
- Using Django since version 1.3
- In love with Cloud Computing

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Agenda

- **Introduction**
 - What is DRF?
 - Can I trust it?
- **DRF main advantages**
- **DRF main concepts**
- **Demo time**
- **Q&A**

Introduction

What is Django Rest Framework?

Django REST framework is a powerful and flexible toolkit for building Web APIs.

Introduction

Can I trust it?

Excellent documentation, active community and widely adopted.

- **Django Rest Framework:** 7,670 stars and 2,600 forks on GitHub
- **Django Tastypie:** 3,160 stars and 1,100 forks on GitHub

Django rest Framework - Main Advantages

- Easy to install and integrate
- Browsable interface
- Excellent documentation
- Write your favorite view types: supports both FBVs and CBVs
- Easy Serialization for both ORM and non-ORM data sources.
- Authentication and authorization
- Pagination and filtering
- Fully customizable

Django rest Framework - Main concepts

Request / Response

- request.POST —> **request.data**
 - Handles PATCH and PUT requests
 - Includes both POST and FILES data
 - Automatic parsing of incoming data
- request.GET —> **request.query_params**
- DRF Response automatically renders the response into the requested content type.

Django rest Framework - Main concepts

Parsers / Renderers

- **Parsers** are used to accept and decode requests in various content types
 - Parser is determined by checking the Content-Type header
 - JSON, Form, Multipart, FileUpload and custom
 - YAML, XML, JSONP and many others are available using third party packages
- **Renderers** are used to return responses in various content types
 - Renderer is determined on the basis of Accept request header
 - JSON, static/rendered HTML and custom
 - YAML, XML, JSONP and many others are available using third party packages

Django rest Framework - Main concepts

Serializers

- Used to translate objects and query sets into JSON/XML or any other supported content type
- Can be declared from scratch or automatically generated from models
- Validates incoming data before creation/update
- *ModelSerializer* supports model fields and custom ones
- Allows nested serializations

Django rest Framework - Main concepts

Views

- Function based views using DRF *@api_view* decorator
- Class based views using DRF *APIView*
- Ready to use mixins and generic class based views
- *Viewsets*, *GenericViewsets* and *ModelViewsets*

Django rest Framework - Main concepts

Authentication, Permissions and Throttling

- Authentication identifies who is making a request
- Permissions define which resources the identified user can access
- Throttling defines the amount of requests than clients can make

Django rest Framework - Main concepts

Pagination & Filtering

- Pagination is in charge to split requested resources into individual pages of data
- Filtering limits the resources based on one or more criteria.



Demo time

8/4/2017

clda.co/pycon8-drf

We are Hiring

clda.co/fullstack-dev





Thank you

Q & A

8/4/2017

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