



# AceleraDev Loadsmart Women Edition

## Módulo 5

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**Esta apresentação está disponível em:**

<https://github.com/camilamaia/acelera-dev-loadsmart-women/>



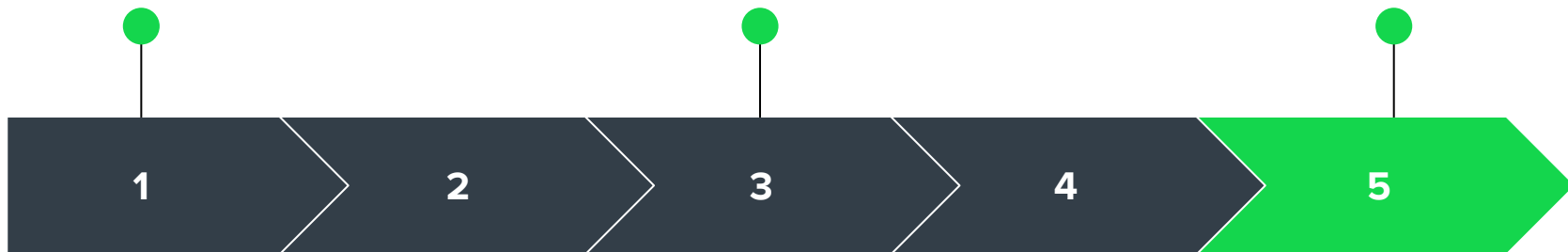
# Módulos

## **Python: Noções básicas**

Primeiro programa, teste, estrutura de dados, condicionais, repetições, operações, funções...

**Django I:** O protocolo HTTP, instalação, iniciando um projeto, arquitetura, modelos, views, django admin, URLs

**REST APIs:** APIs, Rest APIs e Django REST Framework



**Um pouco mais de Python** POO, exceções, programação funcional, map, reduce, filter...

**Django II:** HTML e CSS básico, Templates, Forms, Autorização e Autenticação.



# API

## Application Programming Interface

“É um conjunto de **funções** estabelecidos por um software para a utilização das suas funcionalidades por aplicativos que não pretendem envolver-se em detalhes da implementação do software, mas apenas usar seus **serviços**.”



# API

APIs are all about sharing. An API is an interface that lets one software program “talk” to another, exchanging data behind the scenes. Sharing has always been a foundation of digital technology.

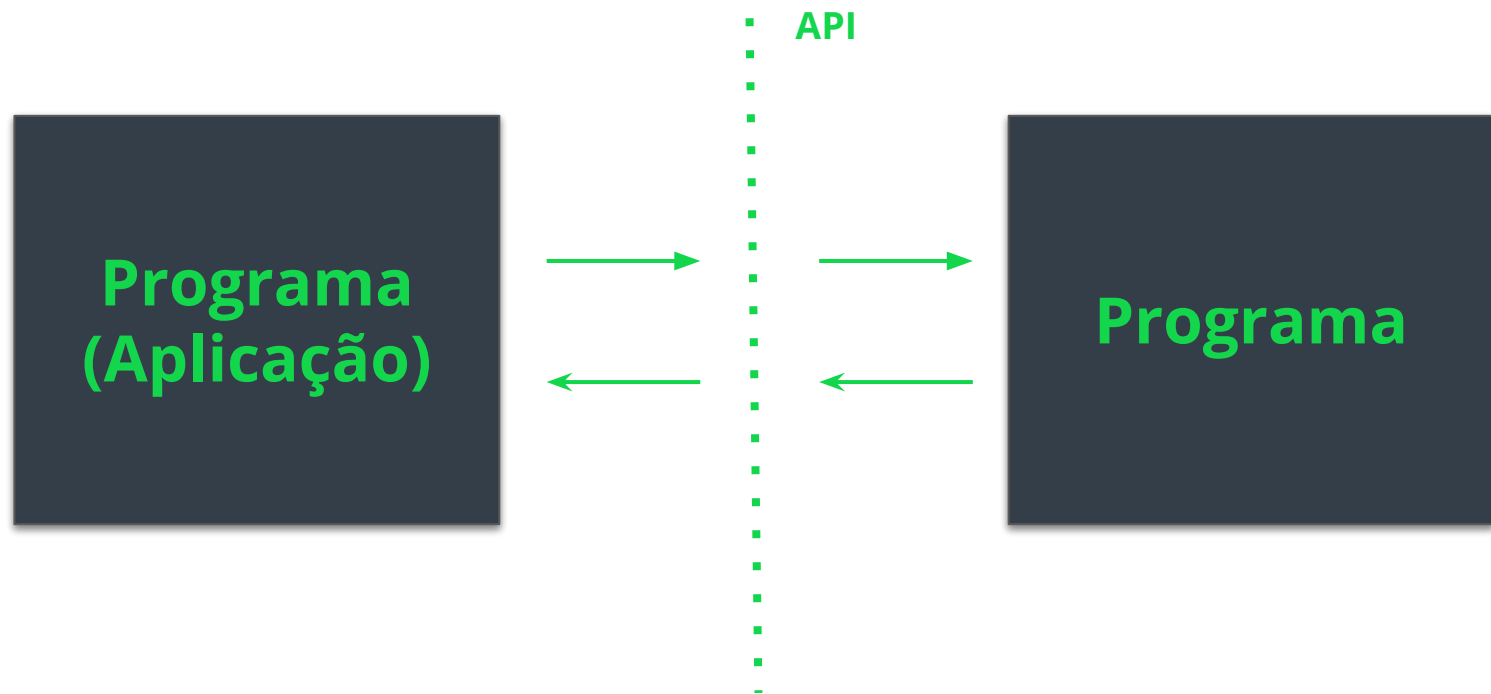
Operating systems, for instance, provide shortcuts that allow programmers to access the keyboard, mouse and other parts of the computer without writing code each time.

[APIs THE BUILDING BLOCKS OF THE APP ECONOMY](#)

- Compartilhar
- Interface de comunicação
- É uma maneira de comunicação entre dois programas
- SO's: atalhos para acessar teclado, mouse...



# API



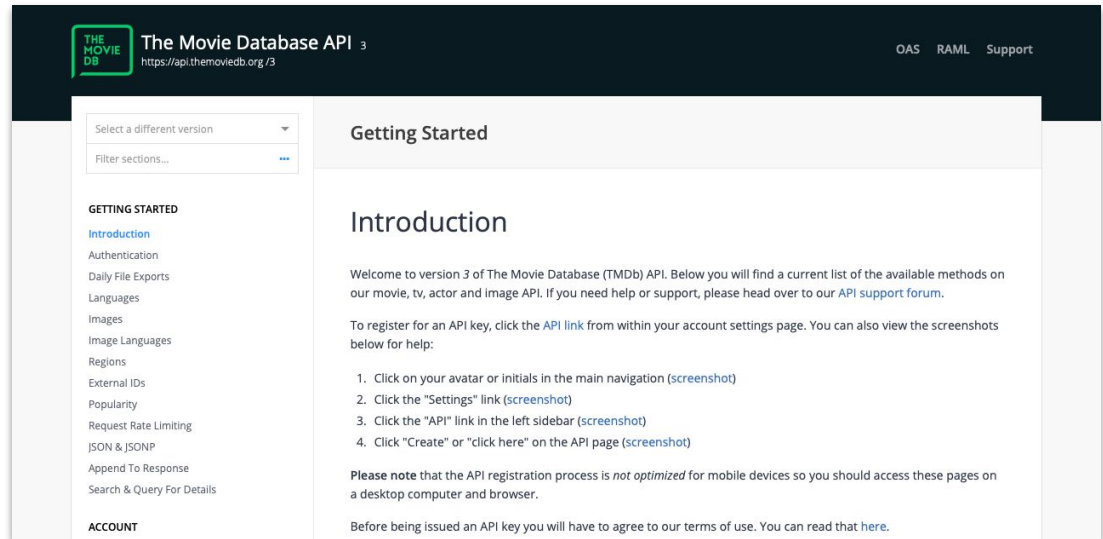
# API

- Serviço
- Para utilizar esse serviço, você precisa entender como ele funciona: documentação.  
(Menu de um restaurante)



# API Exemplo

- [The Movie Database \(TMDb\) API](#)
- [Cadaastro](#)
- [Titanic](#)





# APIs Exemplos

- [Twitter API](#)
- [Facebook API](#)
- [Youtube API](#)
  - <https://github.com/youtube/api-samples>
- <https://github.com/toddmotto/public-apis>
- <https://blog.rapidapi.com/most-popular-apis/>



# APIs

## Por que?

- Fácil integração com novos serviços
- Foco no negócio da empresa
- Viabilização de parcerias
- Velocidade de entrega
- ...



# APIs: Por que?

## The API Economy

- API is a product
- *“Twitter APIs easily have ten times more traffic than the Twitter website does.”*
- *“Amazon, from the get-go, chose to be not only just an Internet retailer but also a ubiquitous merchant portal. Amazon’s merchant platform is deliberately built on APIs that allow easy onboarding of new merchants.”*

[APIs THE BUILDING BLOCKS OF THE APP ECONOMY](#)

[APIs FOR DUMMIES - IBM](#)



# REST APIs

- Design de APIs para web
- Série de padrões para construir uma API

[10 Best Practices for Better RESTful API](#)

[Restful API Designing Guidelines](#)



# JSON

- It is a lightweight data-interchange format.
- It is easy for humans to read and write.
- It is easy for machines to parse and generate.
  
- Modelo de dados
- Modelo de dados usado em muitas APIs
- JavaScript Object Notation
  - The JSON format is syntactically identical to the code for creating JavaScript objects.
  
- Especificação: <https://www.json.org>
- JSON em Python:  
<https://docs.python.org/3/library/json.html>



django

REST

framework

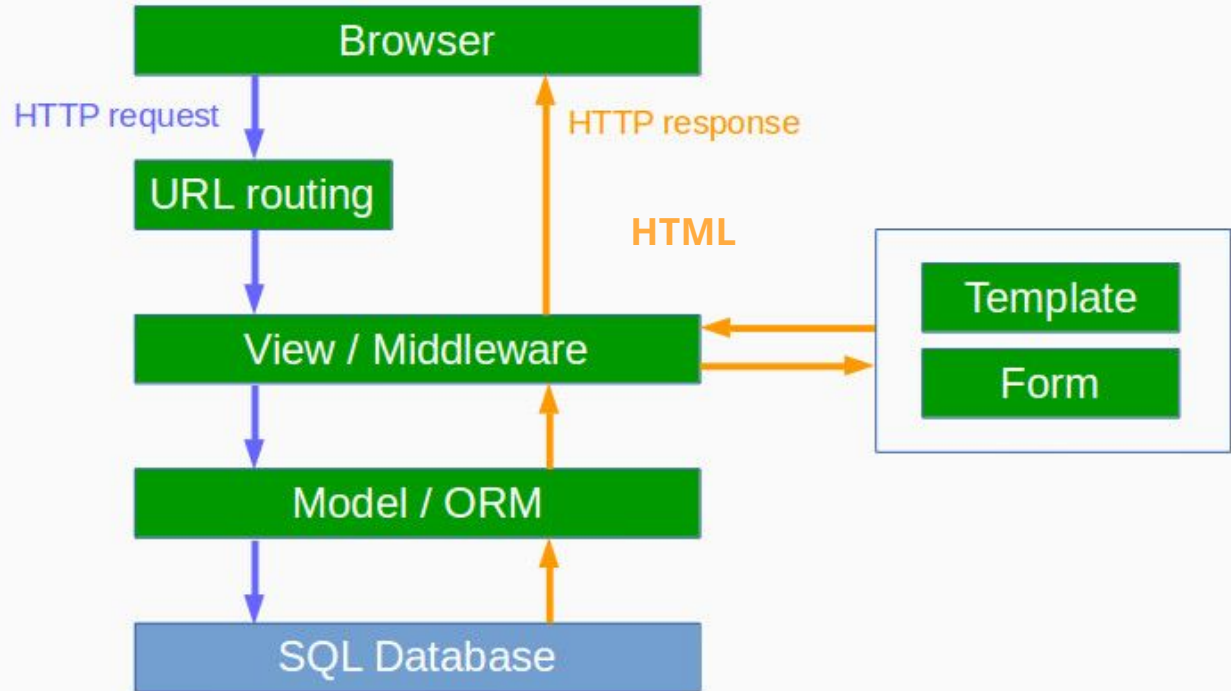


# DRF

- Django REST **framework** is a powerful and flexible toolkit for building **Web APIs**.
- [Web browsable API](#)
- [Quick Start](#)
- [Tutorial](#)

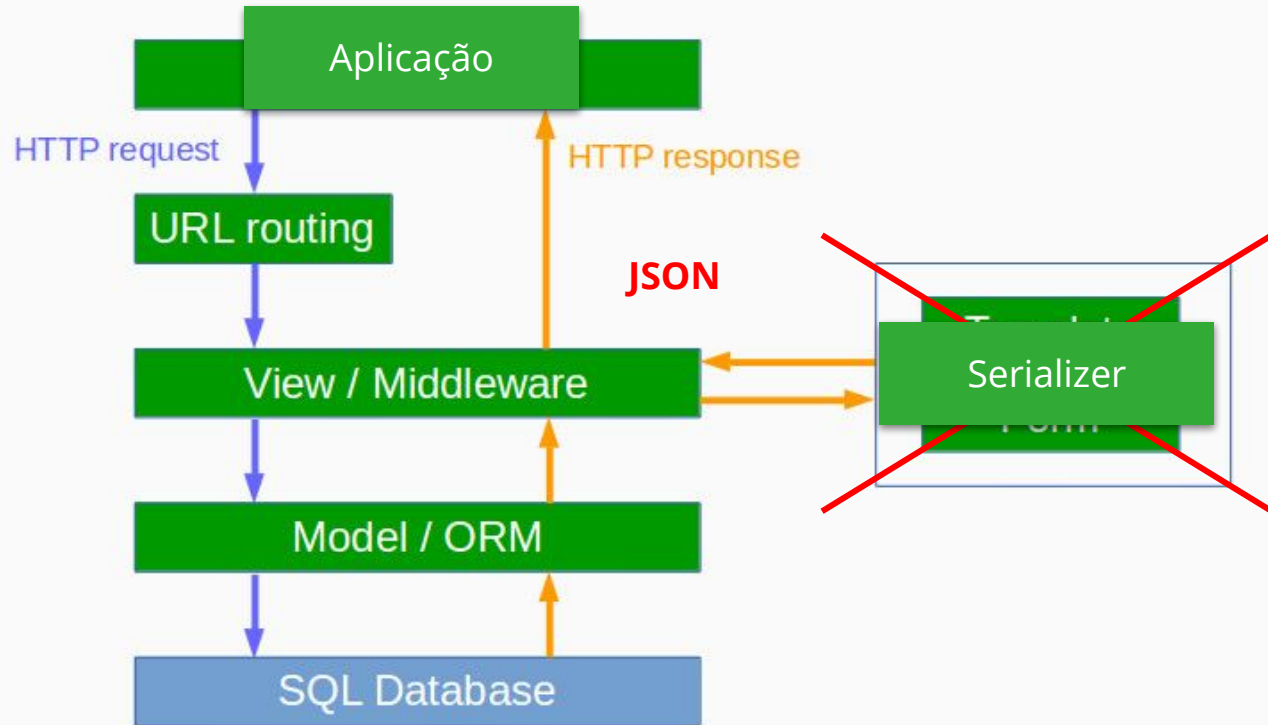


# Django's architecture

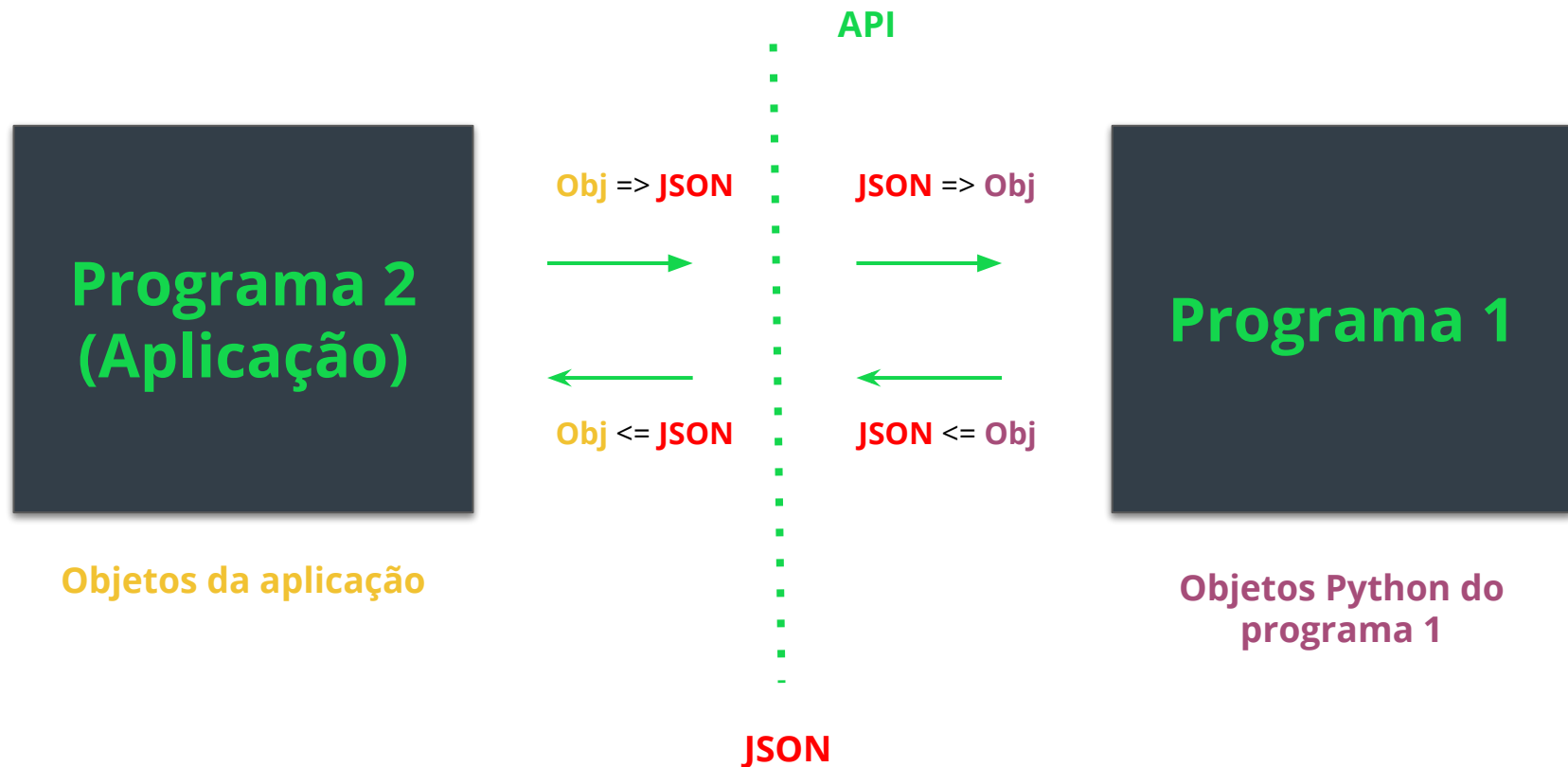




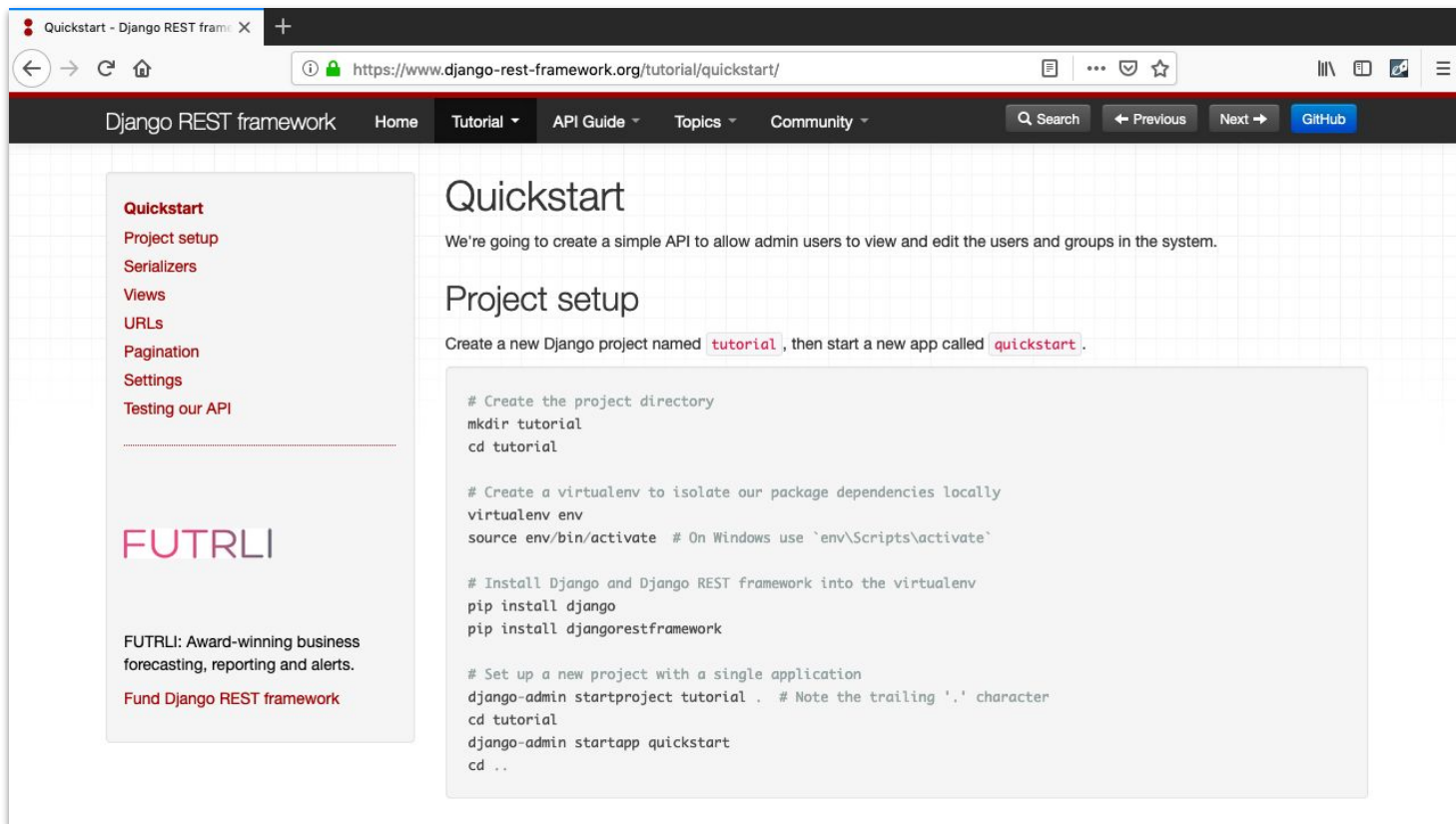
# Django's architecture



# Serialization



# Quickstart



The screenshot shows a web browser displaying the Django REST framework Quickstart page. The browser's address bar shows the URL `https://www.django-rest-framework.org/tutorial/quickstart/`. The page has a dark navigation bar with links for Home, Tutorial, API Guide, Topics, and Community. A sidebar on the left contains a list of links: Quickstart, Project setup, Serializers, Views, URLs, Pagination, Settings, and Testing our API. The main content area has a large heading 'Quickstart' followed by a paragraph: 'We're going to create a simple API to allow admin users to view and edit the users and groups in the system.' Below this is a section titled 'Project setup' with the text: 'Create a new Django project named `tutorial`, then start a new app called `quickstart`.' A code block contains the following commands:

```
# Create the project directory
mkdir tutorial
cd tutorial

# Create a virtualenv to isolate our package dependencies locally
virtualenv env
source env/bin/activate # On Windows use `env\Scripts\activate`

# Install Django and Django REST framework into the virtualenv
pip install django
pip install djangorestframework

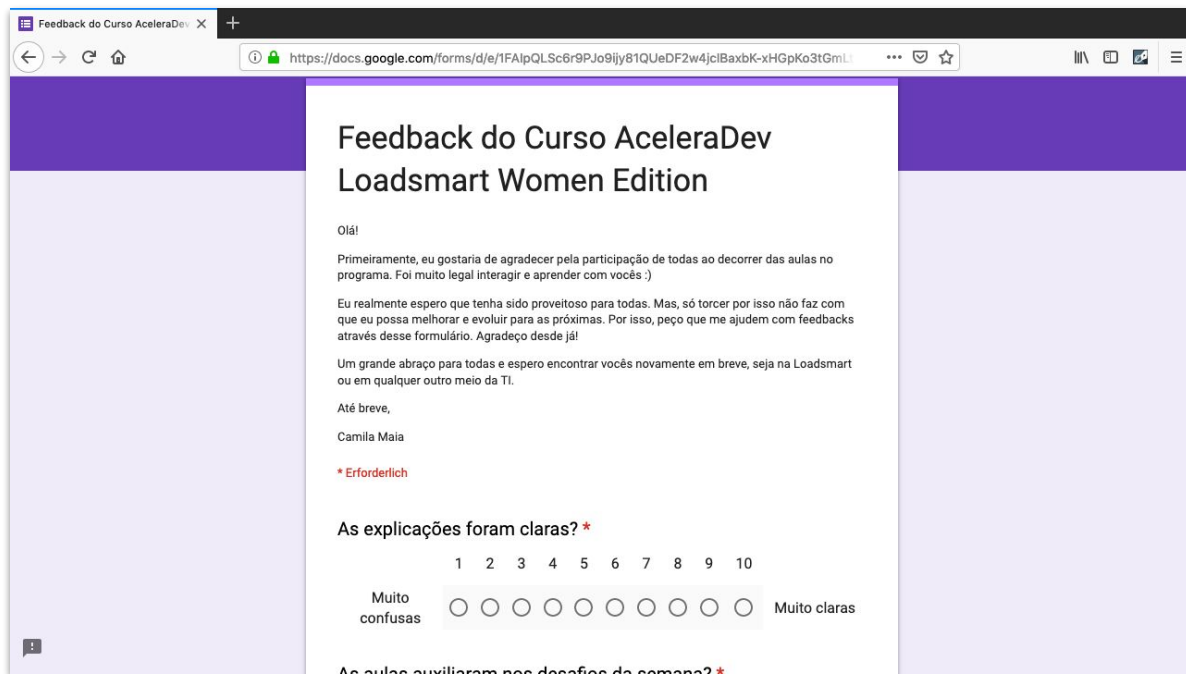
# Set up a new project with a single application
django-admin startproject tutorial . # Note the trailing '.' character
cd tutorial
django-admin startapp quickstart
cd ..
```

At the bottom of the sidebar, there is a logo for 'FUTRLI' and the text: 'FUTRLI: Award-winning business forecasting, reporting and alerts. Fund Django REST framework'.



# Feedbacks do curso!

<https://forms.gle/pe2FrwSU66hqrYEK6>



The image shows a web browser window displaying a Google Form. The browser's address bar shows the URL: <https://docs.google.com/forms/d/e/1FAIpQLSc6r9PJ09ljy81QeDF2w4jclBaxbK-xHGpKo3tGmL...>. The form has a purple header and a light purple background. The title of the form is "Feedback do Curso AceleraDev Loadsmart Women Edition". The text of the form is in Portuguese and includes a greeting, a thank you message, and a request for feedback. It also contains a rating scale for the clarity of the explanations and a question about the usefulness of the weekly challenges.

Feedback do Curso AceleraDev  
Loadsmart Women Edition

Olá!

Primeiramente, eu gostaria de agradecer pela participação de todas ao decorrer das aulas no programa. Foi muito legal interagir e aprender com vocês :)

Eu realmente espero que tenha sido proveitoso para todas. Mas, só torcer por isso não faz com que eu possa melhorar e evoluir para as próximas. Por isso, peço que me ajudem com feedbacks através desse formulário. Agradeço desde já!

Um grande abraço para todas e espero encontrar vocês novamente em breve, seja na Loadsmart ou em qualquer outro meio da TI.

Até breve,  
Camila Maia

\* *Erforderlich*

As explicações foram claras? \*

1 2 3 4 5 6 7 8 9 10

Muito confusas ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ ☐ Muito claras

As aulas auxiliaram nos desafios da semana? \*



# Conteúdos

- <https://medium.freecodecamp.org/what-is-an-api-in-english-please-b880a3214a82>
- <https://www.ibm.com/downloads/cas/GJ5QVQ7X>
- <https://www.nytimes.com/paidpost/ca-technologies/apis-the-building-blocks-of-the-app-economy.html>
- <https://blog.mwaysolutions.com/2014/06/05/10-best-practices-for-better-restful-api/>
- <https://hackernoon.com/restful-api-designing-guidelines-the-best-practices-60e1d954e7c9>
- <https://www.json.org>
- <https://www.w3resource.com/JSON/introduction.php>
- <https://www.django-rest-framework.org>





**MUITO OBRIGADA!**