TECNOLOGIAS WEB
Aula 02
Spring + Verbos HTTP

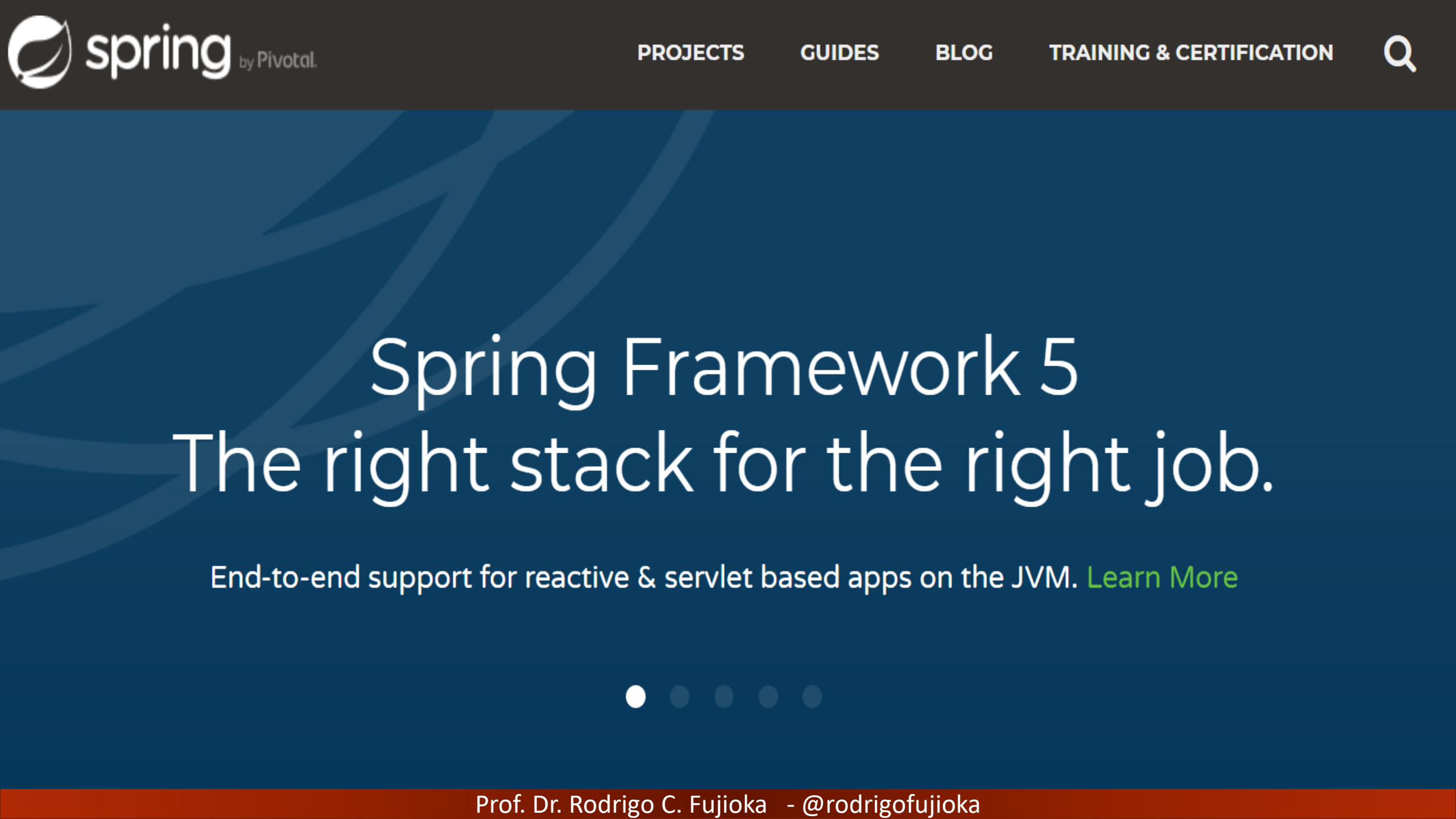
Prof: Rodrigo da Cruz Fujioka

Lattes: http://**lattes**.cnpq.br/0843668802633139

Versão: 1.0 – 22/02/2022

Quais ferramentas

Vamos começar.


spring by Pivotal
PROJECTS
GUIDES
BLOG
TRAINING & CERTIFICATION
Spring Framework 5
The right stack for the right job.
End-to-end support for reactive & servlet based apps on the JVM. Learn More

Spring: the source for modern java

Spring Boot **Spring Cloud** **Spring Cloud Data**

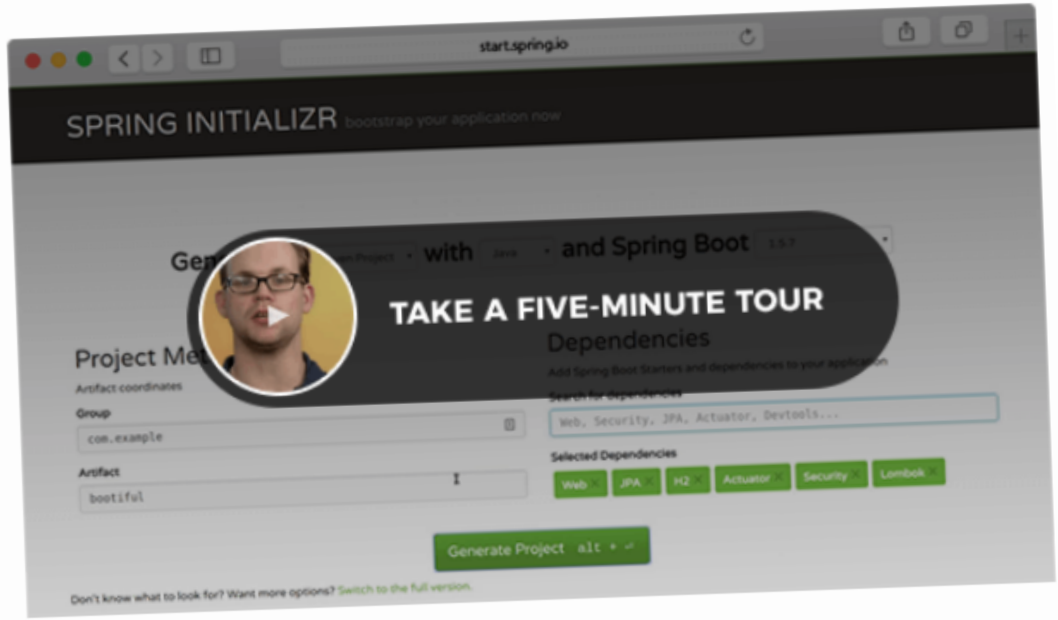
Vamos entender um pouco o que é ?

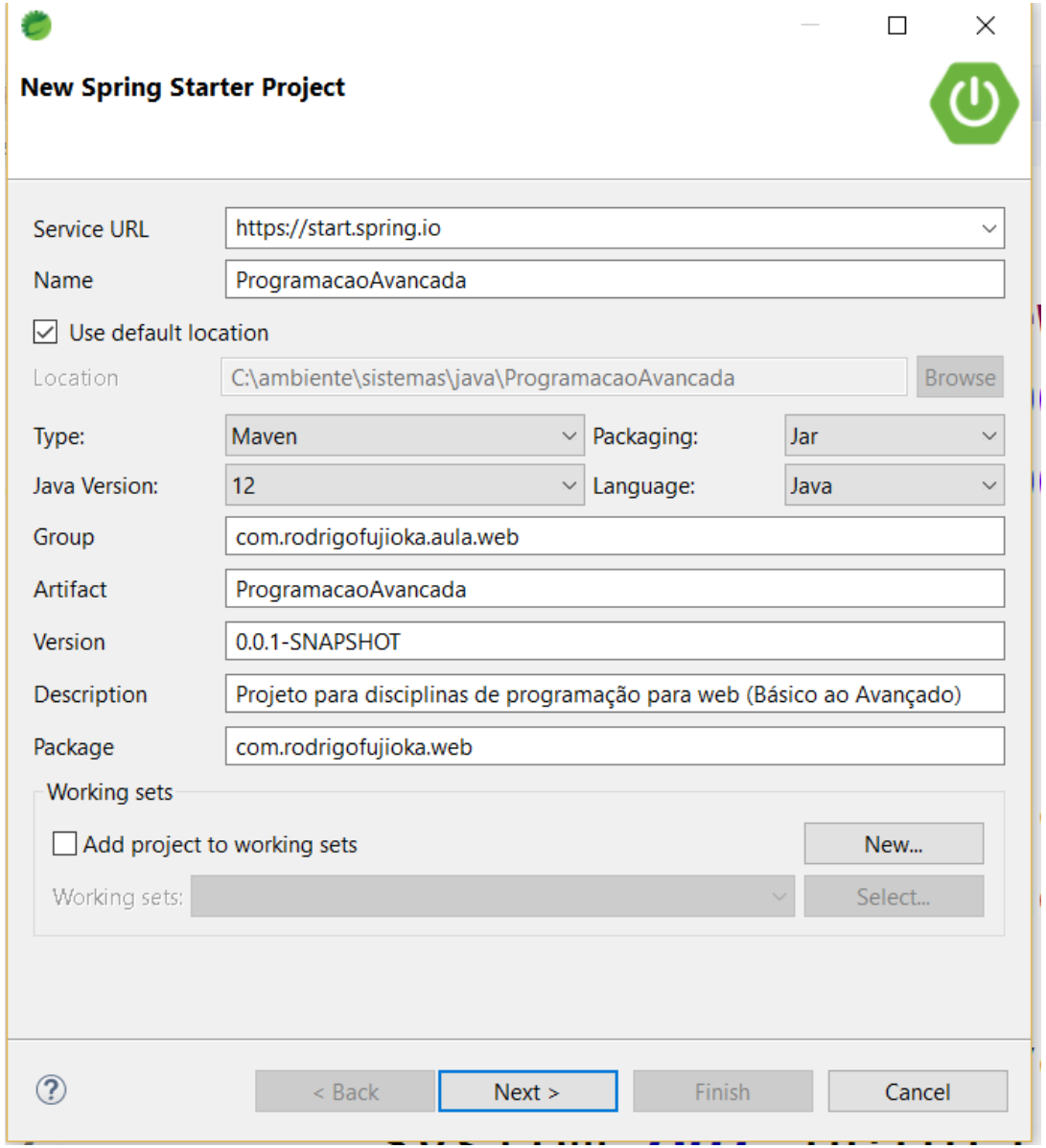
Spring Boot

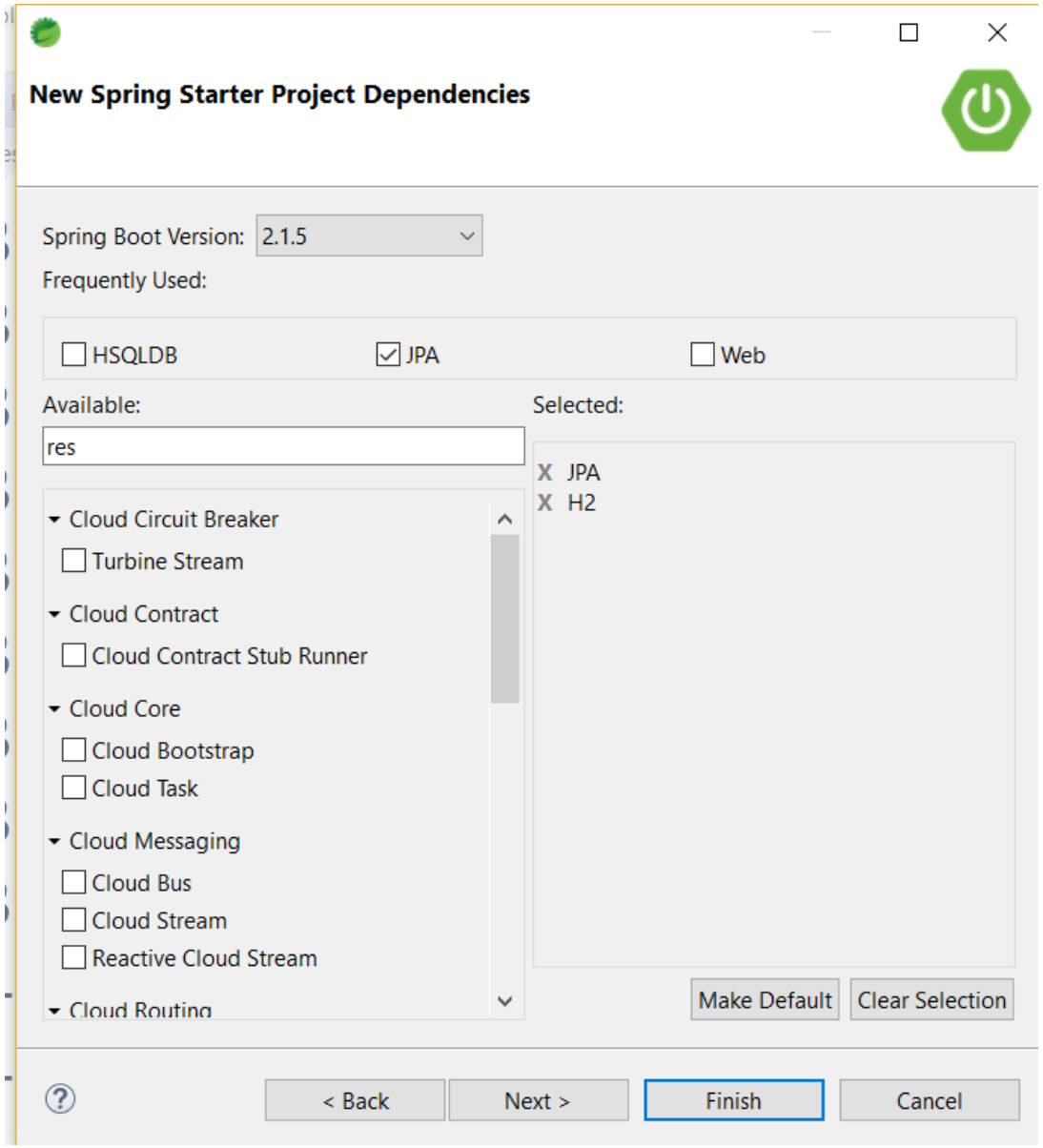
BUILD ANYTHING WITH SPRING BOOT

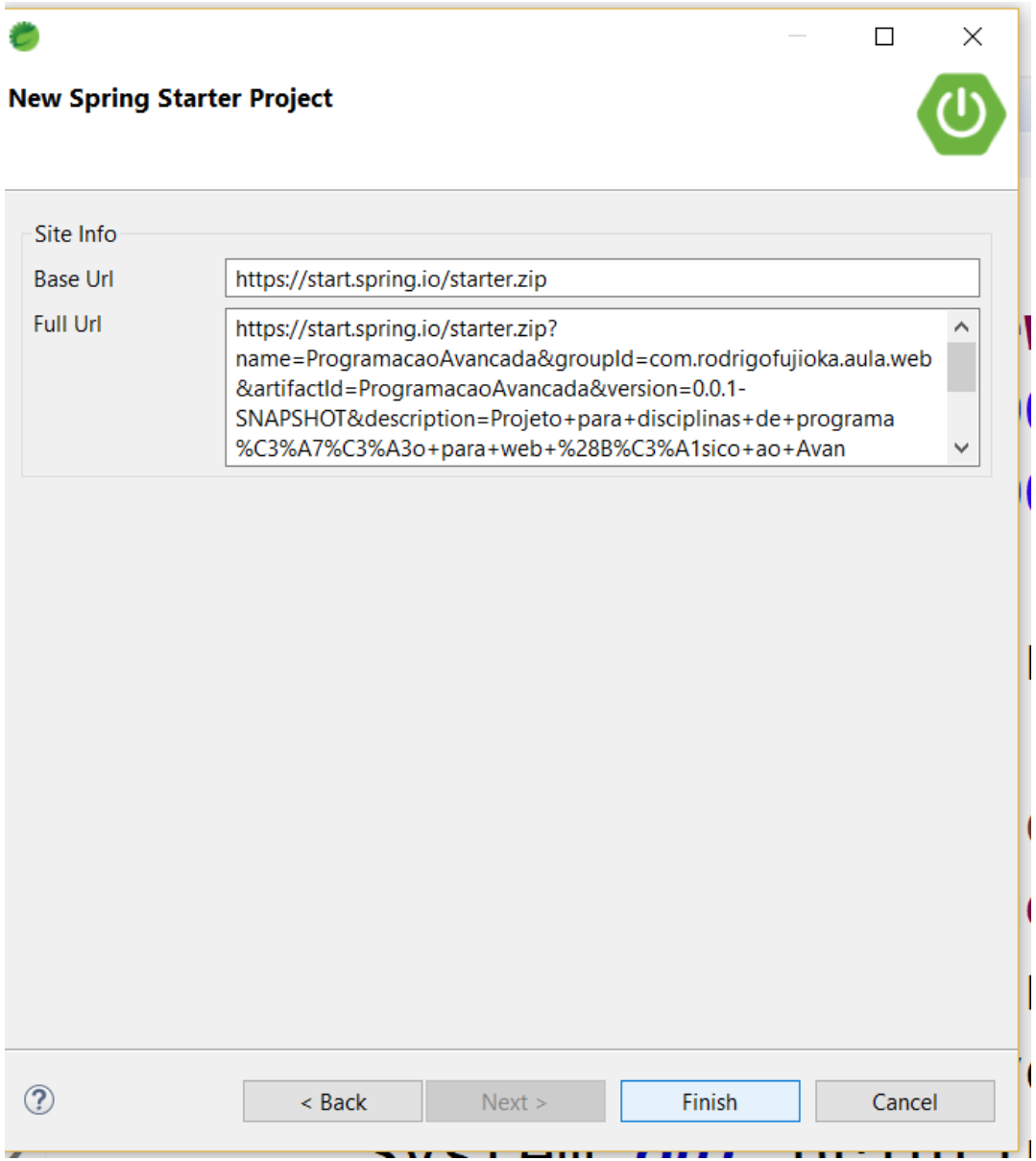
Spring Boot is the starting point for building all Spring-based applications. Spring Boot is designed to get you up and running as quickly as possible, with minimal upfront configuration of Spring.

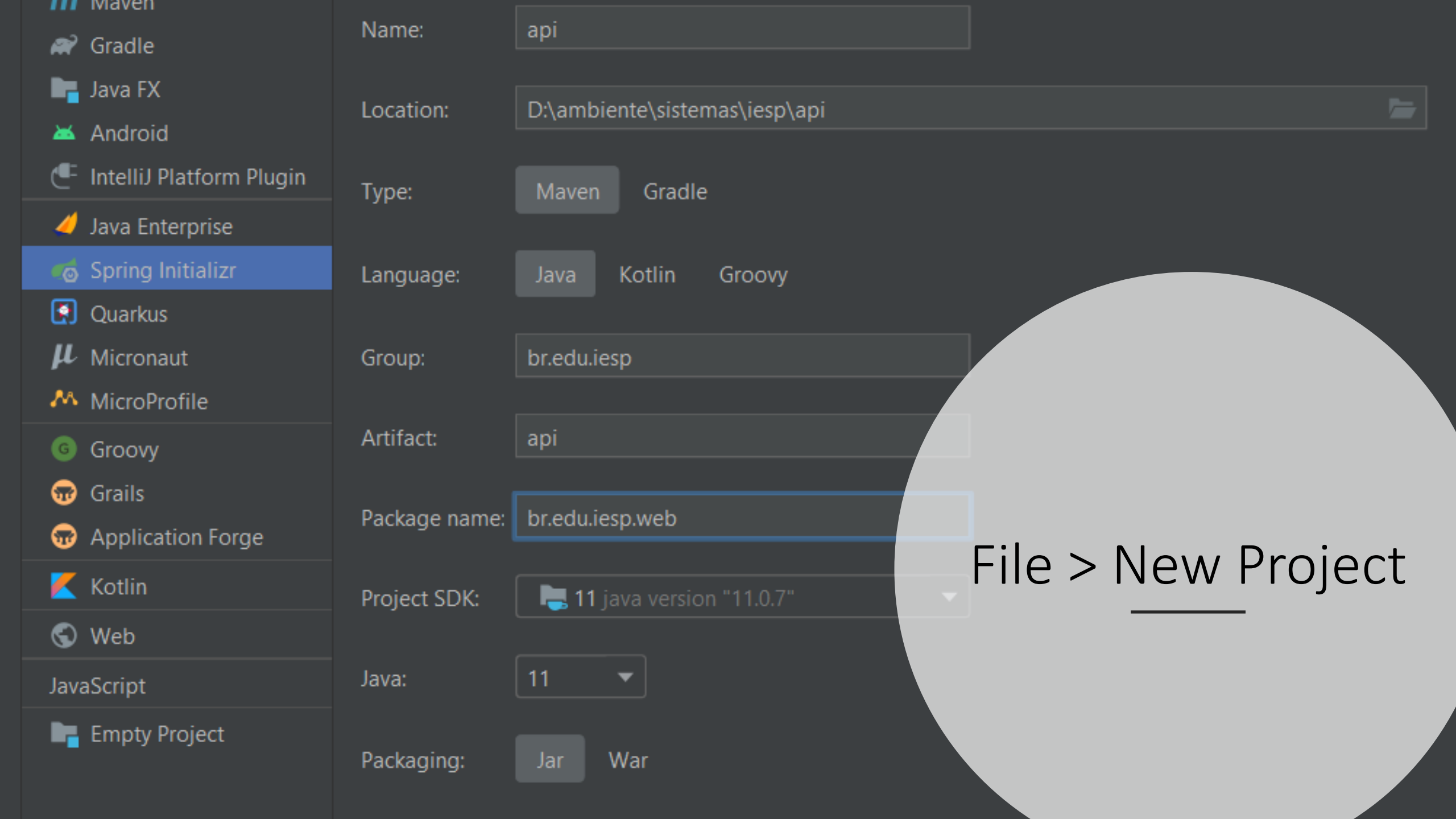
- Get started in seconds using Spring Initializr
- Build anything: REST API, WebSocket, web, streaming, tasks, and more
- Simplified security
- Rich support for SQL and NoSQL
- Embedded runtime support: Tomcat, Jetty, and

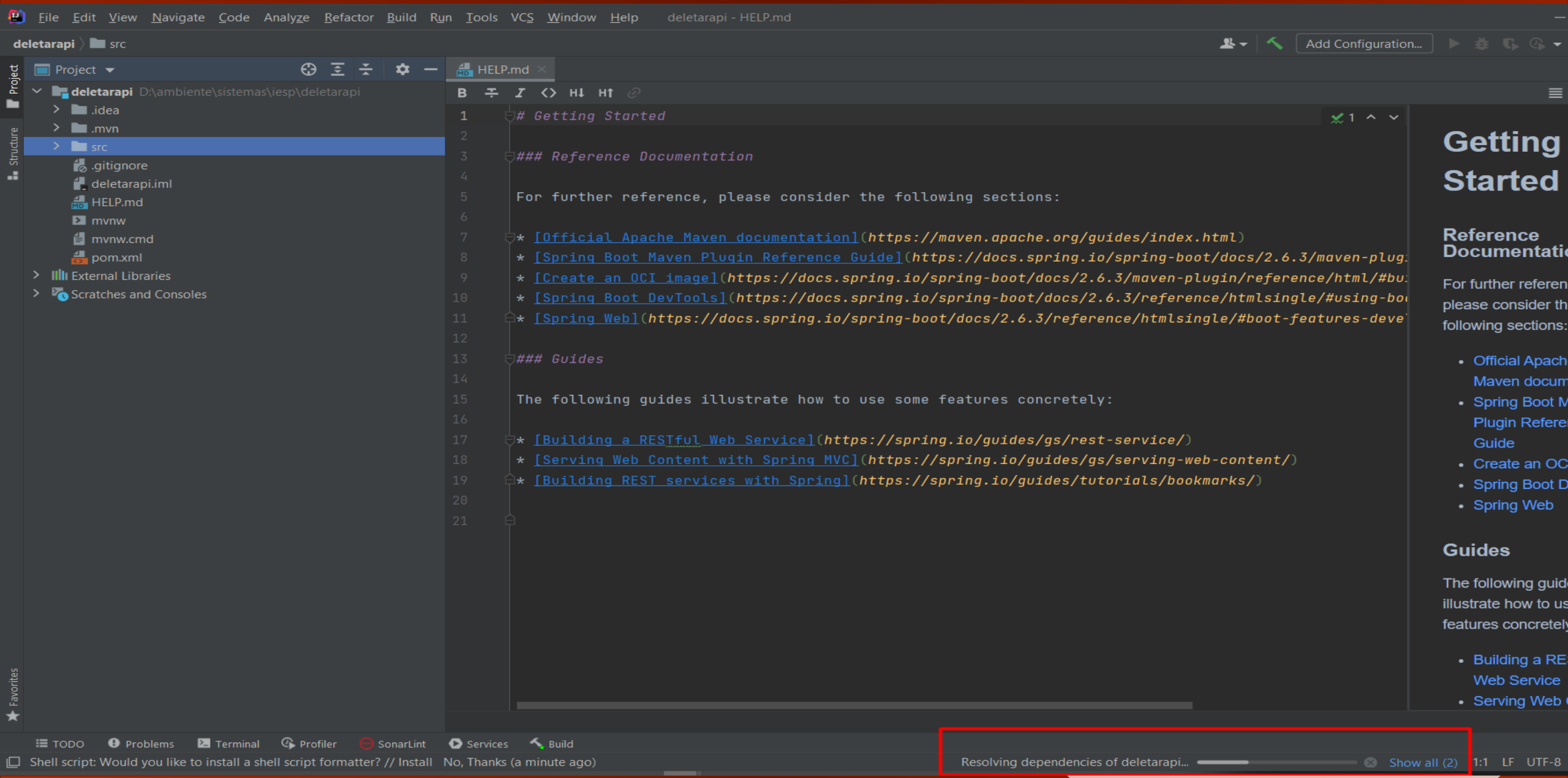


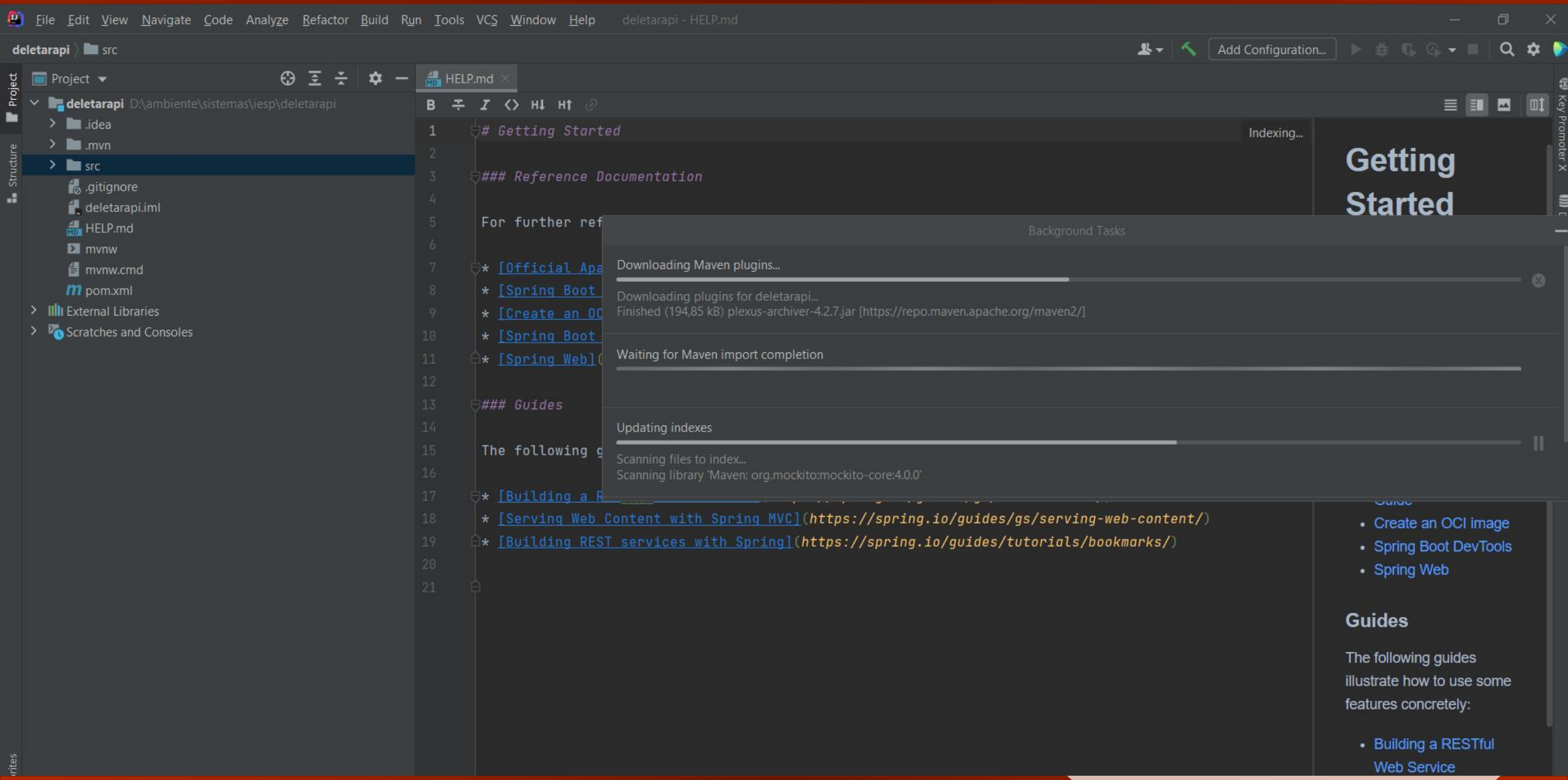

New Spring Starter Project
Service URL
https://start.spring.io
Name
ProgramacaoAvancada
Use default location
Location
C:\ambiente\sistemas\java\ProgramacaoAvancada
Browse
Type:
Maven
Packaging:
Jar
Java Version:
12
Language:
Java
Group
com.rodrigofujioka.aula.web
Artifact
ProgramacaoAvancada
Version
0.0.1-SNAPSHOT
Description
Projeto para disciplinas de programação para web (Básico ao Avançado)
Package
com.rodrigofujioka.web
Working sets
Add project to working sets
New...
Working sets:
Select...
< Back
Next >
Finish
Cancel


New Spring Starter Project Dependencies
Spring Boot Version: 2.1.5
Frequently Used:
HSQLDB
JPA
Web
Available:
res
Cloud Circuit Breaker
Turbine Stream
Cloud Contract
Cloud Contract Stub Runner
Cloud Core
Cloud Bootstrap
Cloud Task
Cloud Messaging
Cloud Bus
Cloud Stream
Reactive Cloud Stream
Cloud Routing
Selected:
X JPA
X H2
Make Default
Clear Selection
< Back
Next >
Finish
Cancel


New Spring Starter Project
Site Info
Base Url
https://start.spring.io/starter.zip
Full Url
https://start.spring.io/starter.zip?
name=ProgramacaoAvancada&groupId=com.rodrigofujioka.aula.web
&artifactId=ProgramacaoAvancada&version=0.0.1-
SNAPSHOT&description=Projeto+para+disciplinas+de+programa
%C3%A7%C3%A3o+para+web+%28B%C3%A1sico+ao+Avan
< Back
Next >
Finish
Cancel

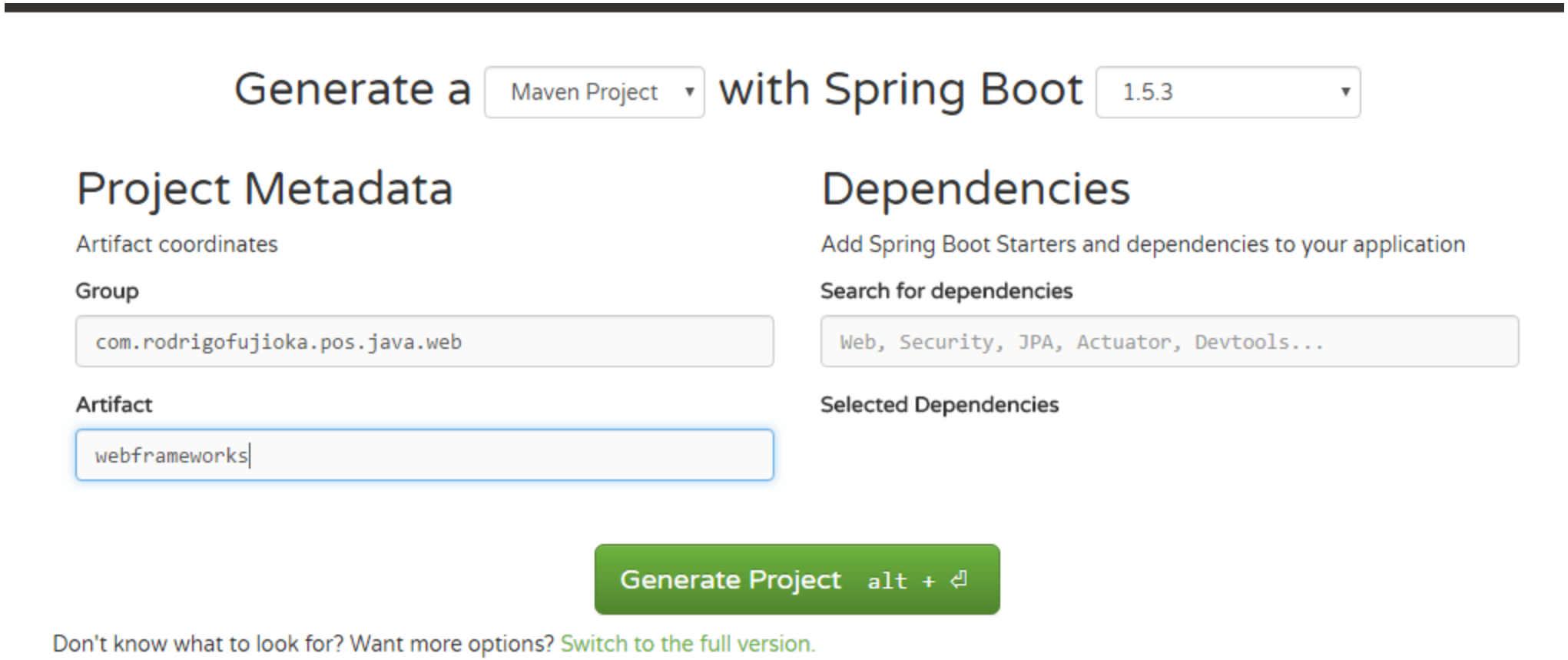

Maven
Gradle
Java FX
Android
IntelliJ Platform Plugin
Java Enterprise
Spring Initializr
Quarkus
Micronaut
MicroProfile
Groovy
Grails
Application Forge
Kotlin
Web
JavaScript
Empty Project
Name: api
Location: D:\ambiente\sistemas\iesp\api
Type: Maven Gradle
Language: Java Kotlin Groovy
Group: br.edu.iesp
Artifact: api
Package name: br.edu.iesp.web
Project SDK: 11 java version "11.0.7"
Java: 11
Packaging: Jar War
File > New Project


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help deletarapi - HELP.md
deletarapi src
Add Configuration...
Project
deletarapi D:\ambiente\sistemas\iesp\deletarapi
.idea
.mvn
src
.gitignore
deletarapi.iml
HELP.md
mvnw
mvnw.cmd
pom.xml
External Libraries
Scratches and Consoles
HELP.md
Getting Started
Reference Documentation
For further reference, please consider the following sections:
* [Official Apache Maven documentation](https://maven.apache.org/guides/index.html)
* [Spring Boot Maven Plugin Reference Guide](https://docs.spring.io/spring-boot/docs/2.6.3/maven-plug
* [Create an OCI image](https://docs.spring.io/spring-boot/docs/2.6.3/maven-plugin/reference/html/#bu
* [Spring Boot DevTools](https://docs.spring.io/spring-boot/docs/2.6.3/reference/htmlsingle/#using-bo
* [Spring Web](https://docs.spring.io/spring-boot/docs/2.6.3/reference/htmlsingle/#boot-features-deve
Guides
The following guides illustrate how to use some features concretely:
* [Building a RESTful Web Service](https://spring.io/guides/gs/rest-service/)
* [Serving Web Content with Spring MVC](https://spring.io/guides/gs/serving-web-content/)
* [Building REST services with Spring](https://spring.io/guides/tutorials/bookmarks/)
Getting Started
Reference Documentatio
For further referen
please consider th
following sections:
Official Apach
Maven docum
Spring Boot M
Plugin Refere
Guide
Create an OC
Spring Boot D
Spring Web
Guides
The following guid
illustrate how to us
features concretely
Building a RE
Web Service
Serving Web
TODO Problems Terminal Profiler SonarLint Services Build
Shell script: Would you like to install a shell script formatter? // Install No, Thanks (a minute ago)
Resolving dependencies of deletarapi...
Show all (2)
1:1 LF UTF-8


File Edit View Navigate Code Analyze Refactor Build Run Tools VCS Window Help
deletarapi - HELP.md
deletarapi
src
Add Configuration...
Project
deletarapi D:\ambiente\sistemas\iesp\deletarapi
.idea
.mvn
src
.gitignore
deletarapi.iml
HELP.md
mvnw
mvnw.cmd
pom.xml
External Libraries
Scratches and Consoles
HELP.md
Getting Started
Reference Documentation
For further ref
* [Official Apa
* [Spring Boot
* [Create an OC
* [Spring Boot
* [Spring Web](
Guides
The following g
* [Building a R
* [Serving Web Content with Spring MVC](https://spring.io/guides/gs/serving-web-content/)
* [Building REST services with Spring](https://spring.io/guides/tutorials/bookmarks/)
Indexing...
Background Tasks
Downloading Maven plugins...
Downloading plugins for deletarapi...
Finished (194,85 kB) plexus-archiver-4.2.7.jar [https://repo.maven.apache.org/maven2/]
Waiting for Maven import completion
Updating indexes
Scanning files to index...
Scanning library 'Maven: org.mockito:mockito-core:4.0.0'
Getting Started
Create an OCI image
Spring Boot DevTools
Spring Web
Guides
The following guides illustrate how to use some features concretely:
Building a RESTful Web Service


spring
?

http://start.spring.io/



SPRING INITIALIZR bootstrap your application now

Generate a Maven Project with Spring Boot 1.5.3

Project Metadata

Artifact coordinates

Group

br.unipe.pos.web

Artifact

webframeworks

webframeworks

Dependencies

Add Spring Boot Starters and dependencies to your application

Search for dependencies

Web, Security, JPA, Actuator, Devtools...

Selected Dependencies

Web × JPA × DevTools × Jersey (JAX-RS) × Security × Thymeleaf ×

Generate Project alt + ⏎

Don't know what to look for? Want more options? Switch to the full version.

@GetMapping

@PostMapping

@PutMapping

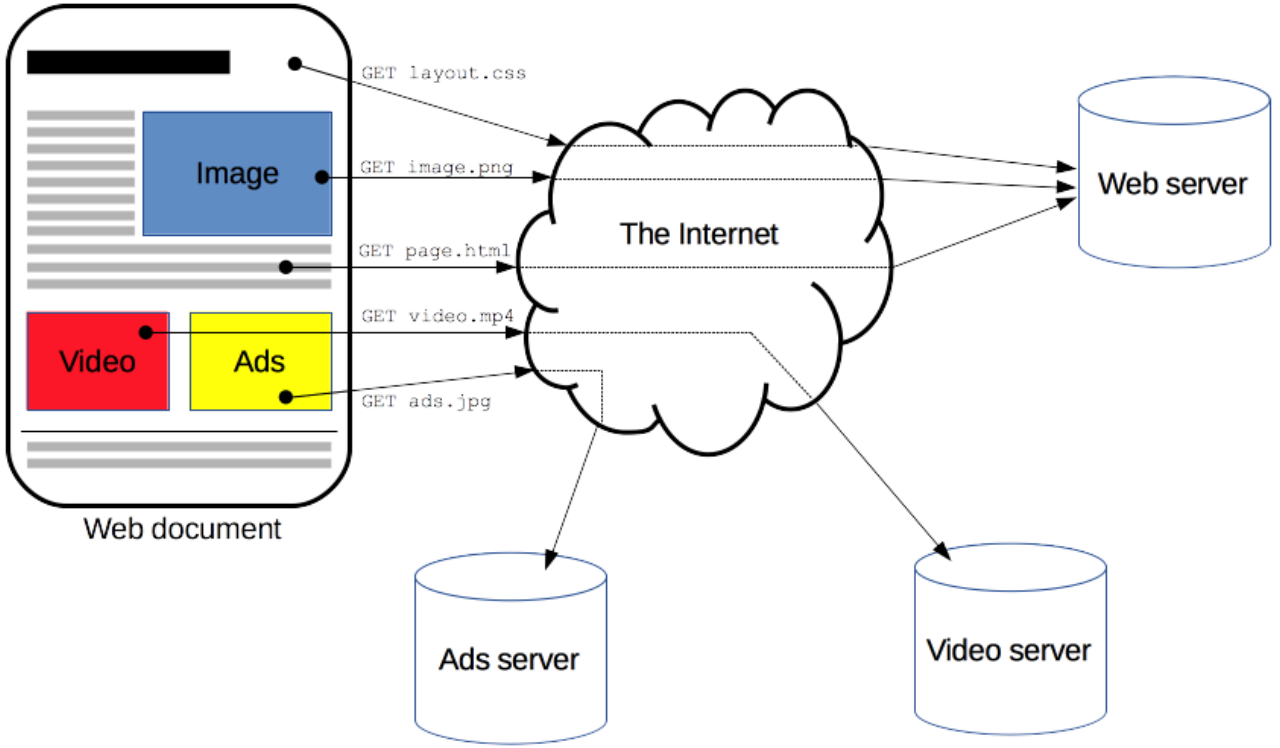
@DeleteMapping

@PatchMapping

HTTP

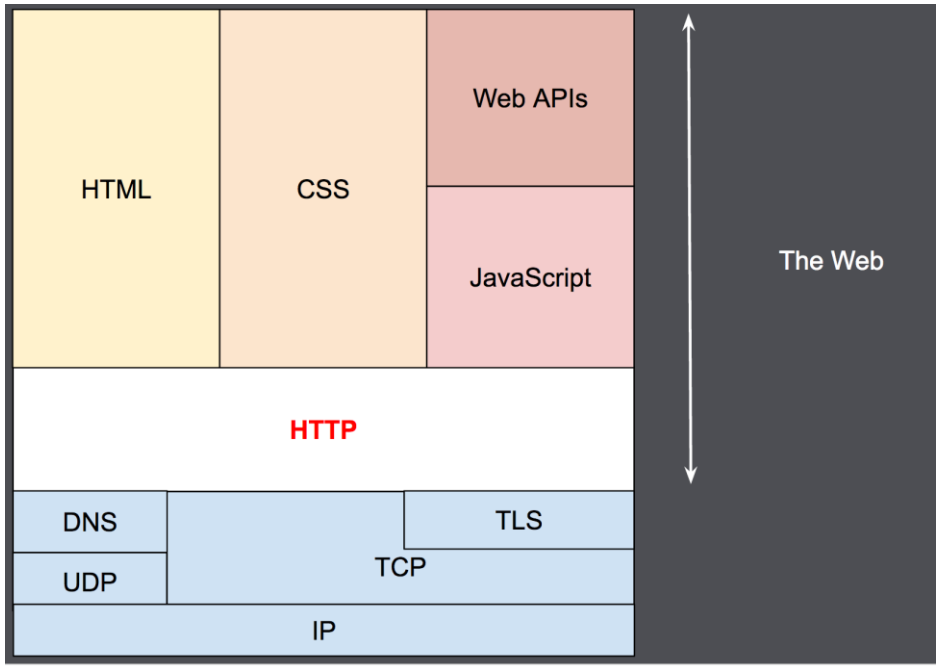
(*HyperText Transfer Protocol*)

É a base de qualquer troca de dados na Web e um protocolo cliente-servidor.

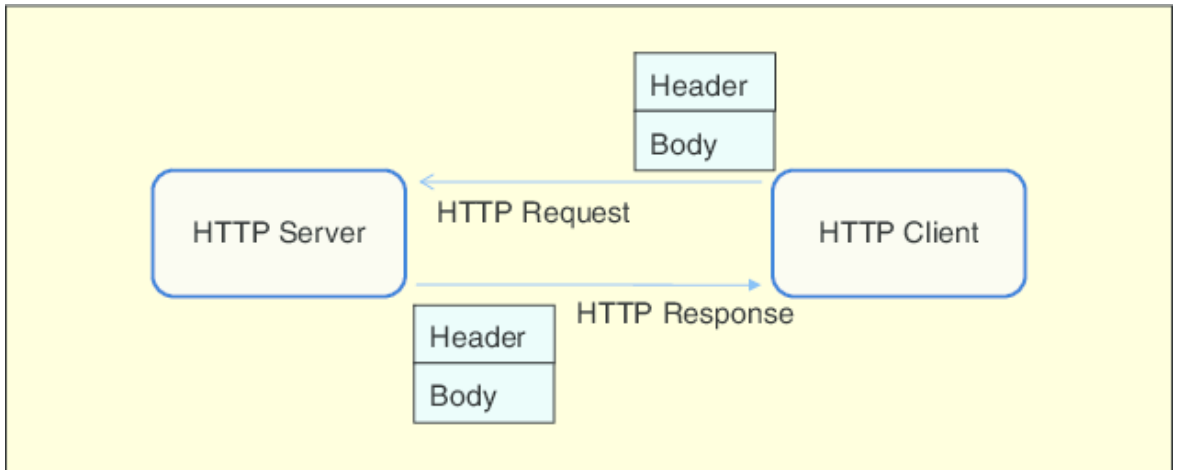


HTTP

(*HyperText Transfer Protocol*)



(Monzila, 2019)



HTTP

(*HyperText Transfer Protocol*)

Componentes de sistemas baseados em HTTP

1. Cliente: o agente-usuário (*user-agent*)

2. O servidor de páginas Web

3. Proxies (ou representantes)

- **cacheamento** (o *cache* pode ser público ou privado, como o *cache* dos navegadores)
- **filtragem** (como um *scanner* de antivírus, controle de acesso, etc)
- **balanceamento de carga** (para permitir que vários servidores possam responder a diferentes requisições)
- **autenticação** (para controlar quem tem acesso aos recursos)
- **autorização** (para controlar quem tem acesso a determinada informação)
- **registro de informação** (permite o armazenamento de informações de histórico)

Verbos HTTP

GET

O método `GET` solicita a representação de um recurso específico. Requisições utilizando o método `GET` devem retornar apenas dados.

HEAD

O método `HEAD` solicita uma resposta de forma idêntica ao método **`GET`**, porém sem conter o corpo da resposta.

POST

O método `POST` é utilizado para submeter uma entidade a um recurso específico, frequentemente causando uma mudança no estado do recurso ou efeitos colaterais no servidor.

Verbos HTTP

PUT

O método `PUT` substitui todas as atuais representações do recurso de destino pela carga de dados da requisição.

DELETE

O método `DELETE` remove um recurso específico.

CONNECT

O método `CONNECT` estabelece um túnel para o servidor identificado pelo recurso de destino.

Verbos HTTP

`OPTIONS`

O método `OPTIONS` é usado para descrever as opções de comunicação com o recurso de destino.

`TRACE`

O método `TRACE` executa um teste de chamada *loop-back* junto com o caminho para o recurso de destino.

`PATCH`

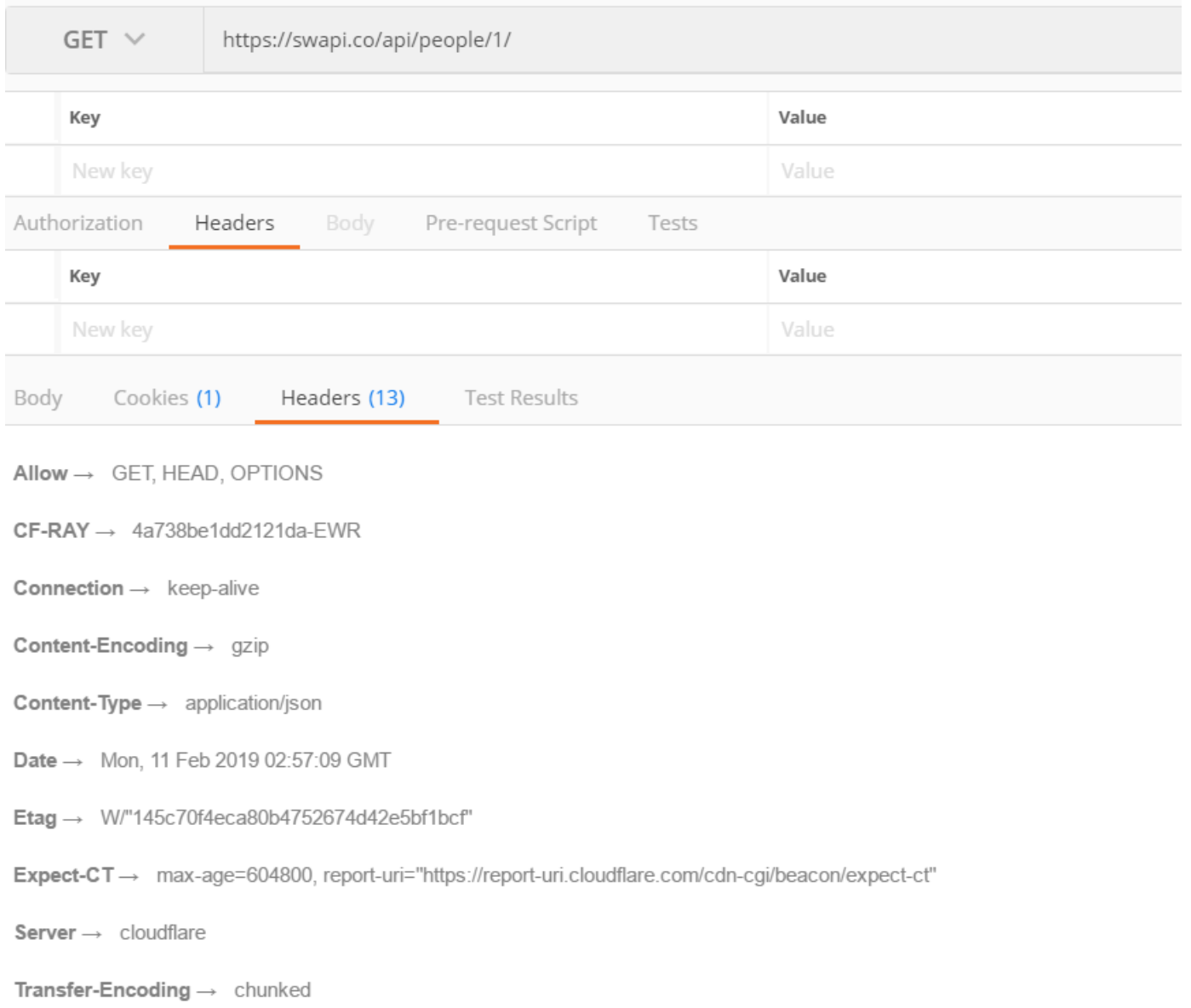
O método `PATCH` é utilizado para aplicar modificações parciais em um recurso

Verbos HTTP

SWAPI
The Star Wars API

https://swapi.co/documentation

Exemplo


GET
https://swapi.co/api/people/1/
Key
Value
New key
Value
Authorization
Headers
Body
Pre-request Script
Tests
Key
Value
New key
Value
Body
Cookies (1)
Headers (13)
Test Results
Allow → GET, HEAD, OPTIONS
CF-RAY → 4a738be1dd2121da-EWR
Connection → keep-alive
Content-Encoding → gzip
Content-Type → application/json
Date → Mon, 11 Feb 2019 02:57:09 GMT
Etag → W/"145c70f4eca80b4752674d42e5bf1bcf"
Expect-CT → max-age=604800, report-uri="https://report-uri.cloudflare.com/cdn-cgi/beacon/expect-ct"
Server → cloudflare
Transfer-Encoding → chunked

Exercício

1 - Implemente os métodos HTTP **[GET, POST, DELETE, PUT]** para dois Recursos:

- User
- Product

Crie um **fork** do meu projeto Web no github no seu repositório.

https://gitlab.com/rodrigofujioka/ies

Leituras:

1. https://www.devmedia.com.br/servicos-restful-verbos-http/37103
2. https://developer.mozilla.org/pt-BR/docs/Web/HTTP
3. https://developer.mozilla.org/pt-BR/docs/Web/HTTP/Methods
4. https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers

Para próxima aula estude:

Links de referência

1. https://www.devmedia.com.br/servicos-restful-verbos-http/37103
2. https://developer.mozilla.org/pt-BR/docs/Web/HTTP
3. https://developer.mozilla.org/pt-BR/docs/Web/HTTP/Methods
4. https://developer.mozilla.org/en-US/docs/Web/HTTP/Headers

Dinâmica da aula

Mão na massa! Prática!

Atividade 1

Você e seu grupo (X pessoas)
Tem 120 minutos para.

1. Criar conta no GITHUB.
2. Configurar o ambiente de desenvolvimento

Atividade 2 (Sala/Casa)

- Continuar e replicar para os colegas


Os dias prósperos não vêm por acaso; nascem de muita fadiga e persistência.
(Henry Ford)