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# Desenvolvimento WEB

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Full Stack Completo: Java + React

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# Criando o Projeto: Back-end



# Projeto que será desenvolvido

## Nossa meta

Iremos desenvolver um sistema web de comércio eletrônico de produtos alimentícios (tipo o iFood)



# Criando o Projeto



# Criando o Projeto

1) Crie um repositório público no seu Github para armazenar o projeto que será trabalhado na disciplina

## Create a new repository

A repository contains all project files, including the revision history. Already have a project repository elsewhere? [Import a repository.](#)

Owner \*

 robertoalencar ▾

Repository name \*

oxefood-api ✓

Great repository names are short and memorable. Need inspiration? How about [sturdy-octo-umbrella?](#)

Description (optional)

Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão c

☒  **Public**

Anyone on the internet can see this repository. You choose who can commit.

☐  **Private**

You choose who can see and commit to this repository.

**Initialize this repository with:**

Skip this step if you're importing an existing repository.

☒ **Add a README file**

This is where you can write a long description for your project. [Learn more.](#)

**Add .gitignore**

Choose which files not to track from a list of templates. [Learn more.](#)

.gitignore template: None ▾

**Choose a license**


A license tells others what they can and can't do with your code. [Learn more.](#)

License: None ▾


This will set  `main` as the default branch. Change the default name in your [settings](#).

 You are creating a public repository in your personal account.

# Criando o Projeto



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[robertoalencar](#) / [oxefood-api](#) Public

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main 1 branch 0 tags

[Go to file](#) [Add file](#) [Code](#)

 **robertoalencar** Initial commit

8a9f3ae 1 hour ago 1 commit

 README.md

Initial commit

1 hour ago

README.md

## oxefood-api

Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão dos Guararapes.

[Readme](#)  
[0 stars](#)  
[1 watching](#)  
[0 forks](#)

### Releases

No releases published  
[Create a new release](#)

### Packages

No packages published  
[Publish your first package](#)



# Criando o Projeto

2) Copiando a URL do repositório criado, clone o mesmo para sua máquina local.

- **No meu caso:** `https://github.com/robertoalencar/oxefood-api.git`

The screenshot shows the GitHub interface for the repository 'robertoalencar/oxefood-api'. At the top, there are buttons for 'main', '1 branch', and '0 tags'. Below this, the repository name and 'Initial commit' are displayed. The 'README.md' file is listed. The 'About' section on the right describes the project as an example for a WEB development discipline at IFPE Campus Jaboatão dos Guararapes. It also shows '0 stars', '1 watching', and '0 forks'. The 'Releases' section indicates 'No releases published' with a link to 'Create a new release'. The 'Clone' dropdown menu is open, showing options for 'Local' and 'Codespaces'. Under 'Local', there are 'Clone' and 'Download ZIP' options. The 'Clone' option is selected, showing the 'HTTPS' URL: 'https://github.com/robertoalencar/oxefood'. Below the URL, it says 'Use Git or checkout with SVN using the web URL.'.

main 1 branch 0 tags

robertoalencar Initial commit

README.md Initial commit

README.md

**oxefood-api**

Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão dos Guararapes.

**About**

Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão dos Guararapes.

Readme

0 stars

1 watching

0 forks

**Releases**

No releases published

[Create a new release](#)

Local Codespaces New

Clone ?

HTTPS SSH GitHub CLI

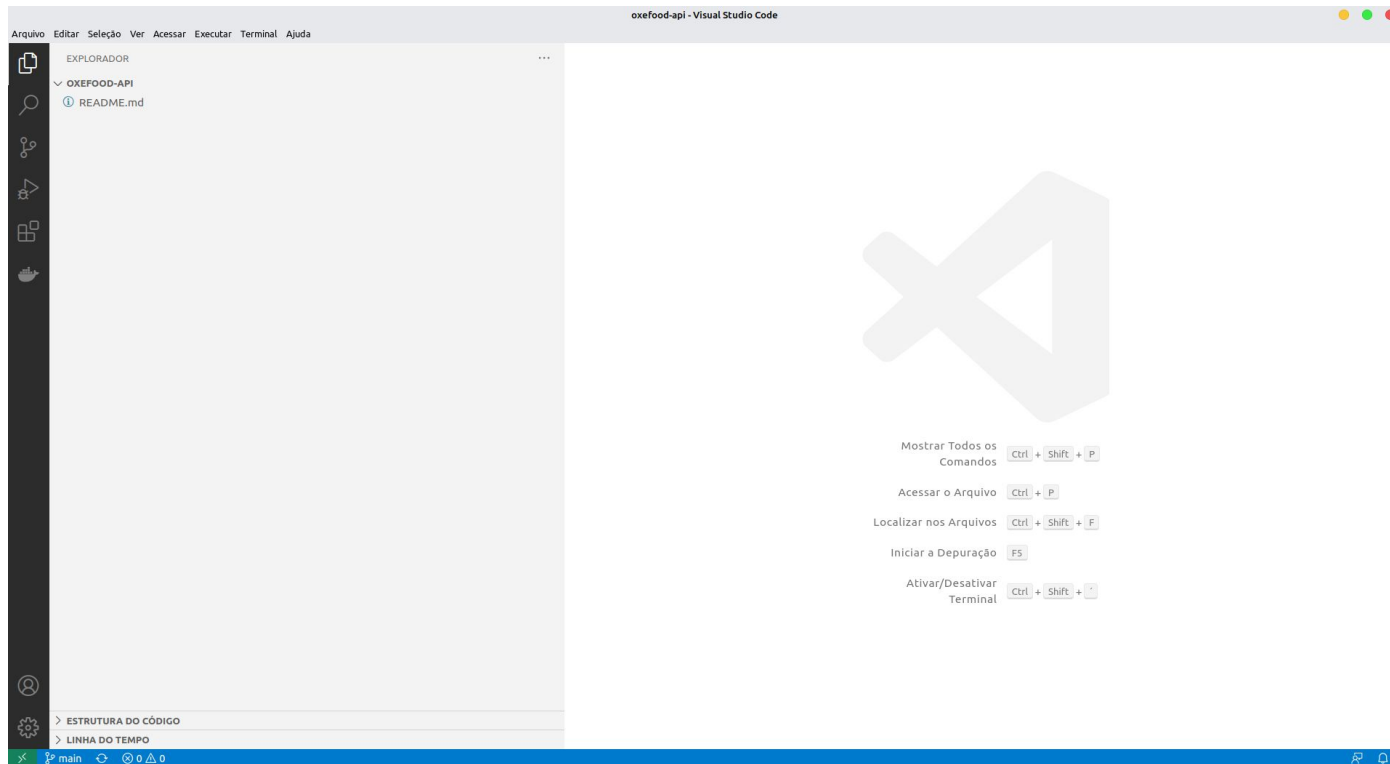
https://github.com/robertoalencar/oxefood

Use Git or checkout with SVN using the web URL.

Download ZIP

# Criando o Projeto

## 3) Abra a pasta do projeto no VS Code





# Criando o Projeto

## 4) Crie o projeto com o Spring Initializr

- O Spring Boot traz a ideia de convenção em vez de configuração, e, para fazer jus a essa frase, a própria plataforma Spring disponibilizou a ferramenta Spring Initializr, que possibilita à pessoa desenvolvedora ter toda a configuração inicial de um projeto Spring com alguns cliques:
  - <https://start.spring.io>



# Criando o Projeto

## 5) Crie o projeto conforme imagens:



### Project

☐ Gradle - Groovy ☐ Gradle - Kotlin ☒ Java ☐ Kotlin ☐ Groovy  
☒ Maven

### Language

### Spring Boot

☐ 3.3.0 (SNAPSHOT) ☐ 3.3.0 (M1) ☐ 3.2.4 (SNAPSHOT) ☒ 3.2.3  
☐ 3.1.10 (SNAPSHOT) ☐ 3.1.9

### Project Metadata

Group

Artifact

Name

Description

Package name

Packaging ☒ Jar ☐ War

Java ☐ 21 ☒ 17

### Dependencies

ADD DEPENDENCIES... CTRL + B

#### Spring Boot DevTools DEVELOPER TOOLS

Provides fast application restarts, LiveReload, and configurations for enhanced development experience.

#### Lombok DEVELOPER TOOLS

Java annotation library which helps to reduce boilerplate code.

#### Spring Web WEB

Build web, including RESTful, applications using Spring MVC. Uses Apache Tomcat as the default embedded container.

#### Rest Repositories WEB

Exposing Spring Data repositories over REST via Spring Data REST.

#### Spring HATEOAS WEB

Eases the creation of RESTful APIs that follow the HATEOAS principle when working with Spring / Spring MVC.

#### Spring Security SECURITY

Highly customizable authentication and access-control framework for Spring applications.

#### Spring Data JPA SQL

Persist data in SQL stores with Java Persistence API using Spring Data and Hibernate.

#### PostgreSQL Driver SQL

A JDBC and R2DBC driver that allows Java programs to connect to a PostgreSQL database using standard, database independent Java code.

#### H2 Database SQL

Provides a fast in-memory database that supports JDBC API and R2DBC access, with a small (2mb) footprint. Supports embedded and server modes as well as a browser based console application.

#### Validation I/O

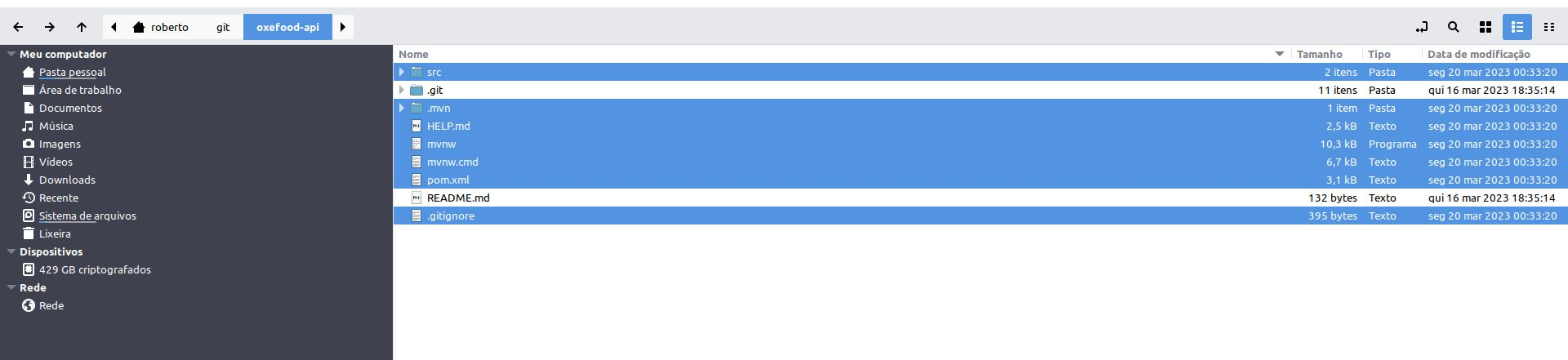
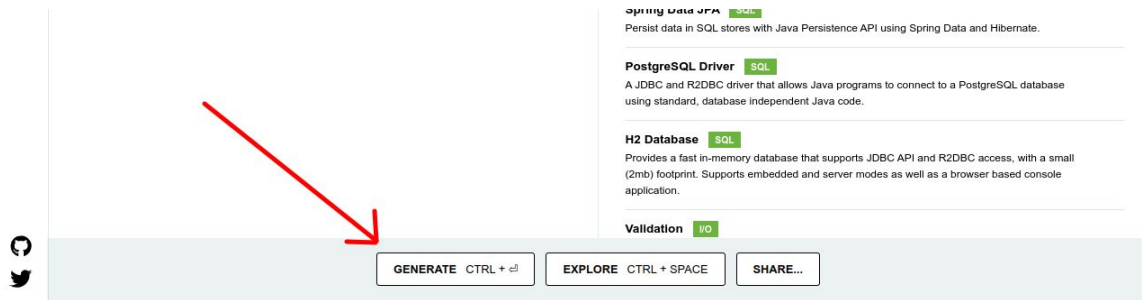
Bean Validation with Hibernate validator.

#### Thymeleaf TEMPLATE ENGINES

A modern server-side Java template engine for both web and standalone environments. Allows HTML to be correctly displayed in browsers and as static prototypes.

# Criando o Projeto

6) Após baixar o .zip gerado pelo Spring Initializr, descompacte o projeto criado e copie seu conteúdo para o diretório do seu projeto no git.



# Criando o Projeto

## 7) Configuração necessária para rodar o projeto

- Crie um novo arquivo chamado `docker-compose.yml` na raiz do projeto
- Copie e cole o conteúdo abaixo no arquivo `docker-compose.yml`:

```
version: "3"
services:

  db:
    image: postgres:9.6
    restart: always
    environment:
      POSTGRES_PASSWORD: oxefood
      POSTGRES_DB: oxefood
    ports:
      - 5435:5432
    volumes:
      - ./postgres-data:/bitnami/postgresql/data
```

# Criando o Projeto

## 7) Configuração necessária para rodar o projeto

- Levante o container do banco de dados com o comando: `docker-compose up -d`

The screenshot shows an IDE interface with a file explorer on the left and a code editor on the right. The file explorer shows the project structure for 'OXEFOOD-API', including files like .mvn, postgres-data, src, .gitignore, docker-compose.yml, HELP.md, mvnw, mvnw.cmd, pom.xml, and README.md. The 'docker-compose.yml' file is selected and its content is displayed in the code editor. The code editor shows the following content:

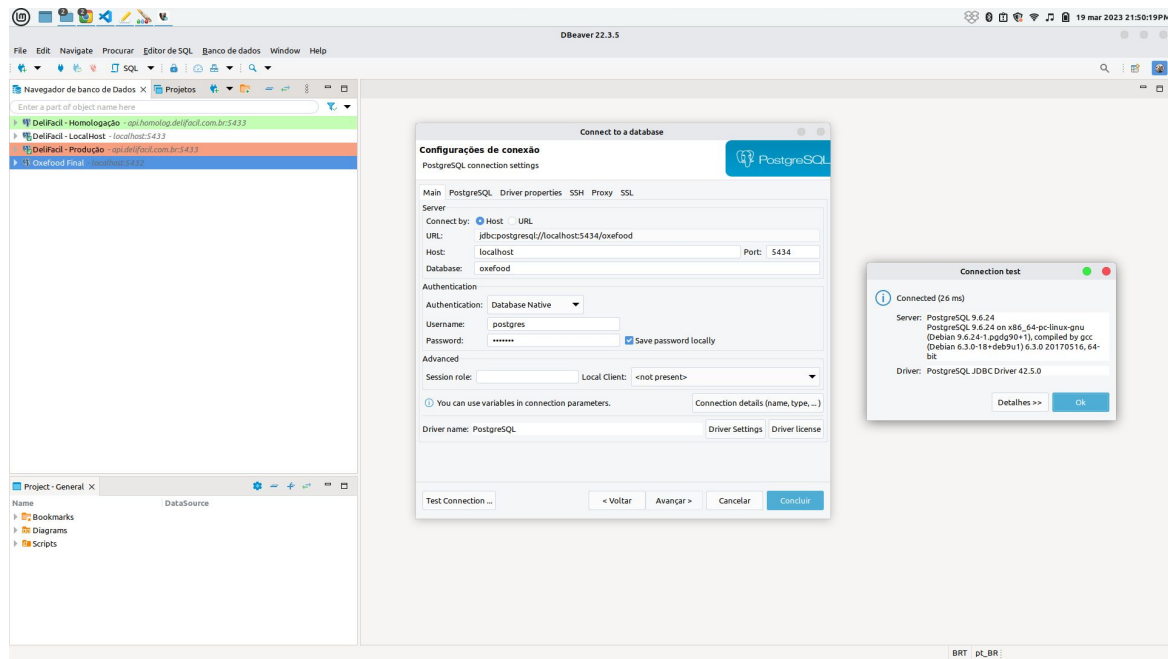
```
1 version: "3"
2 services:
3
4   db:
5     image: postgres:9.6
6     restart: always
7     environment:
8       POSTGRES_PASSWORD: oxefood
9       POSTGRES_DB: oxefood
10    ports:
11      - 5434:5432
12    volumes:
13      - ./postgres-data:/bitnami/postgresql/data
```

At the bottom of the IDE, the terminal window shows the command `sudo docker-compose up -d` being executed, with the output indicating that the container is being recreated successfully.

# Criando o Projeto

## 7) Configuração necessária para rodar o projeto

- Teste se o banco está ok no programa DBeaver



# Criando o Projeto

## 8) Configuração necessária para rodar o projeto

- Na pasta `src -> main -> resources`, adicione as configurações abaixo ao arquivo `application.properties` para a conexão com o banco de dados:

```
server.port=8080
spring.config.import=optional:file:.env[.properties]

# Datasource ( levantando a aplicação sem container )
spring.datasource.driver-class-name=org.postgresql.Driver
spring.datasource.url=jdbc:postgresql://localhost:5435/oxefood
spring.datasource.username=postgres
spring.datasource.password=oxefood

# JPA
spring.jpa.hibernate.ddl-auto=update
spring.jpa.show-sql=false
spring.jpa.properties.hibernate.dialect=org.hibernate.dialect.PostgreSQLDialect
spring.jpa.properties.hibernate.temp.use_jdbc_metadata_defaults=false
spring.jpa.database-platform=org.hibernate.dialect.PostgreSQL9Dialect
spring.jpa.generate-ddl=true
```

# Criando o Projeto

## 9.1) Configuração necessária para rodar o projeto

- Abra o arquivo `pom.xml`, e adicione a dependência abaixo (em vermelho):

```
...  
  
    <dependency>  
        <groupId>org.apache.commons</groupId>  
        <artifactId>commons-lang3</artifactId>  
    </dependency>  
  
</dependencies>
```



# Criando o Projeto

## 9.2) Configuração necessária para rodar o projeto


- Ainda no substitua `<build>` pelo código abaixo:

arquivo pom.xml, marcação

```
<build>
  <plugins>
    <plugin>
      <groupId>org.springframework.boot </groupId>
      <artifactId>spring-boot-maven-plugin </artifactId>
      <configuration>
        <excludes>
          <exclude>
            <groupId>org.projectlombok </groupId>
            <artifactId>lombok</artifactId>
          </exclude>
        </excludes>
      </configuration>
    </plugin>
    <plugin>
      <groupId>org.apache.maven.plugins </groupId>
      <artifactId>maven-resources-plugin </artifactId>
      <version>3.1.0</version>
    </plugin>
  </plugins>
</build>
```

# Criando o Projeto

## 10) Execute seu projeto e verifique se ele está rodando corretamente



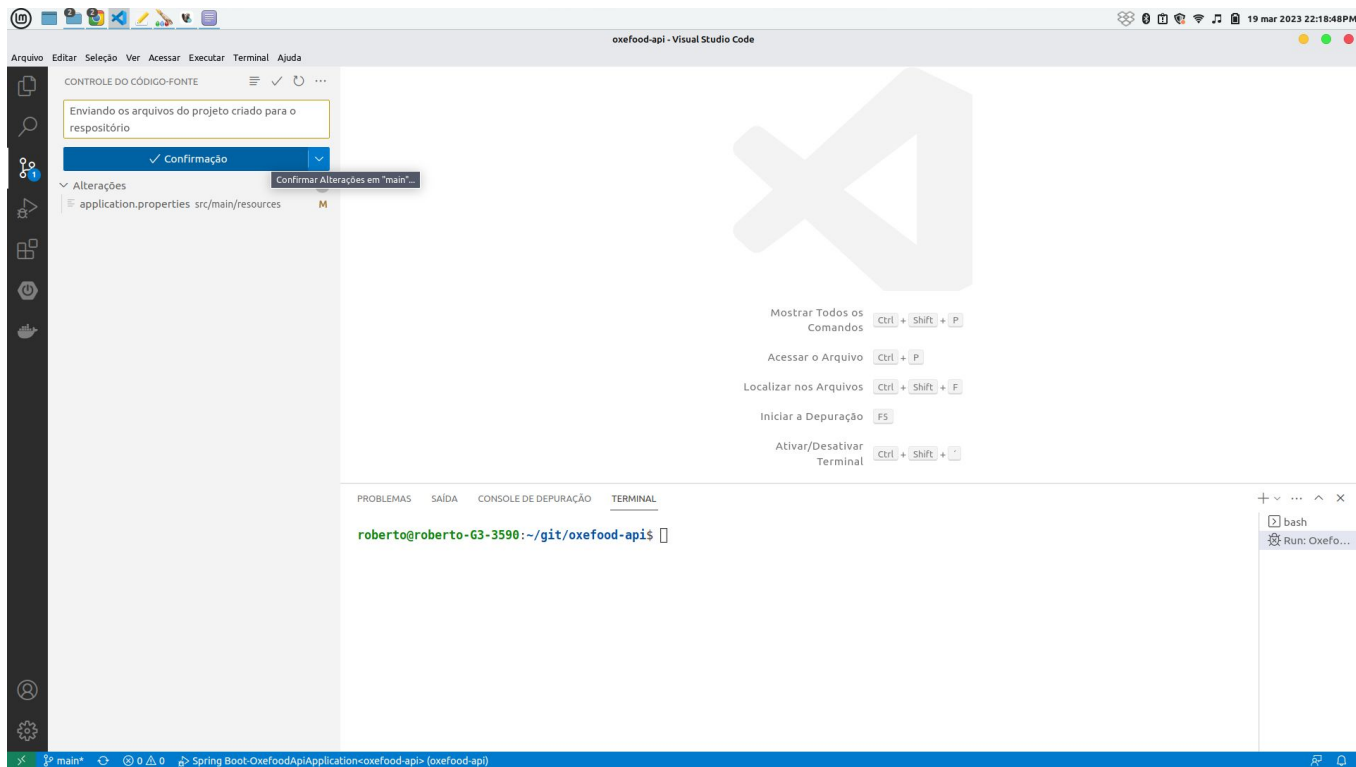
The screenshot shows the Spring Boot Dashboard in VS Code. The left sidebar contains the 'APPS' section with 'oxefood-api' selected, the 'BEANS' section with 'oxefood-api' and 'oxefoodApiApplication', and the 'ENDPOINT MAPPINGS' section with 'oxefood-api'. The main area displays the 'Run' button and a list of commands: 'Mostrar Todos os Comandos' (Ctrl + Shift + P), 'Acessar o Arquivo' (Ctrl + P), 'Localizar nos Arquivos' (Ctrl + Shift + F), 'Iniciar a Depuração' (F5), and 'Ativar/Desativar Terminal' (Ctrl + Shift + `). The terminal at the bottom shows the output of the application, including the log message 'Started OxefoodApi Application in 3.2 seconds (process running for 3.807)'.

```
filter@3cc2fdb6, org.springframework.security.web.authentication.logout.LogoutFilter@294fce18, org.springframework.security.web.authentication.UsernamePasswordAuthenticationFilter@342174eb, org.springframework.security.web.authentication.ui.DefaultLoginPageGeneratingFilter@4228e11b, org.springframework.security.web.authentication.ui.DefaultLogoutPageGeneratingFilter@373a1f05, org.springframework.security.web.authentication.www.BasicAuthenticationFilter@2566f99a, org.springframework.security.web.servletapi.SecurityContextHolderAwareRequestFilter@59f0e45e, org.springframework.security.web.authentication.AnonymousAuthenticationFilter@2761bcfd, org.springframework.security.web.access.ExceptionTranslationFilter@16377c5a, org.springframework.security.web.access.intercept.AuthorizationFilter@1c63e24]
```

```
2023-03-19T22:05:12.823-03:00 INFO 13805 --- [ restartedMain] o.s.b.d.a.OptionalLiveReloadServer : LiveReload server is running on port 35729
2023-03-19T22:05:12.877-03:00 INFO 13805 --- [ restartedMain] o.s.b.w.embedded.tomcat.TomcatWebServer : Tomcat started on port(s): 8082 (http) with context path ''
2023-03-19T22:05:12.894-03:00 INFO 13805 --- [ restartedMain] b.c.ifpe.oxefood.OxefoodApiApplication : Started OxefoodApi Application in 3.2 seconds (process running for 3.807)
```

# Criando o Projeto

## 11) Faça o commit / push dos arquivos para o repositório remoto



# Criando o Projeto

## 11) Faça o commit / push dos arquivos para o repositório remoto

The screenshot shows a GitHub repository page for 'robertoalencar / oxefood-api'. The repository is public and has 1 branch (main) and 0 tags. The commit history shows a recent commit by 'robertoalencar' titled 'Enviando os arquivos do projeto criado para o repositório' with 2 commits. The file list includes .mvn/wrapper, src, .gitignore, README.md, docker-compose.yml, mvnw, mvnw.cmd, and pom.xml. The README.md file is expanded, showing the project description: 'Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão dos Guararapes.' The right sidebar shows the 'About' section with a description of the project, 'Releases' section with no releases published, 'Packages' section with no packages published, and 'Languages' section showing Java at 100.0%.

robertoalencar / oxefood-api Public

<> Code Issues Pull requests Actions Projects Wiki Security Insights Settings

main 1 branch 0 tags Go to file Add file <> Code About

robertoalencar Enviando os arquivos do projeto criado para o repositório 0fc46fa 2 minutos ago 2 commits

.mvn/wrapper	Enviando os arquivos do projeto criado para o repositório	2 minutos ago
src	Enviando os arquivos do projeto criado para o repositório	2 minutos ago
.gitignore	Enviando os arquivos do projeto criado para o repositório	2 minutos ago
README.md	Initial commit	3 days ago
docker-compose.yml	Enviando os arquivos do projeto criado para o repositório	2 minutos ago
mvnw	Enviando os arquivos do projeto criado para o repositório	2 minutos ago
mvnw.cmd	Enviando os arquivos do projeto criado para o repositório	2 minutos ago
pom.xml	Enviando os arquivos do projeto criado para o repositório	2 minutos ago

README.md

### oxefood-api

Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão dos Guararapes.

**About**

Projeto utilizado como exemplo para a disciplina de Desenvolvimento para WEB no IFPE Campus Jaboatão dos Guararapes.

Readme 0 stars 1 watching 0 forks

**Releases**

No releases published  
[Create a new release](#)

**Packages**

No packages published  
[Publish your first package](#)

**Languages**

Java 100.0%

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# Dúvidas



The background features two large, solid green abstract shapes. One is a semi-circle on the left side, and the other is a more complex, organic shape on the right side.

Obrigado !