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## API Documentation

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### WeDelivery

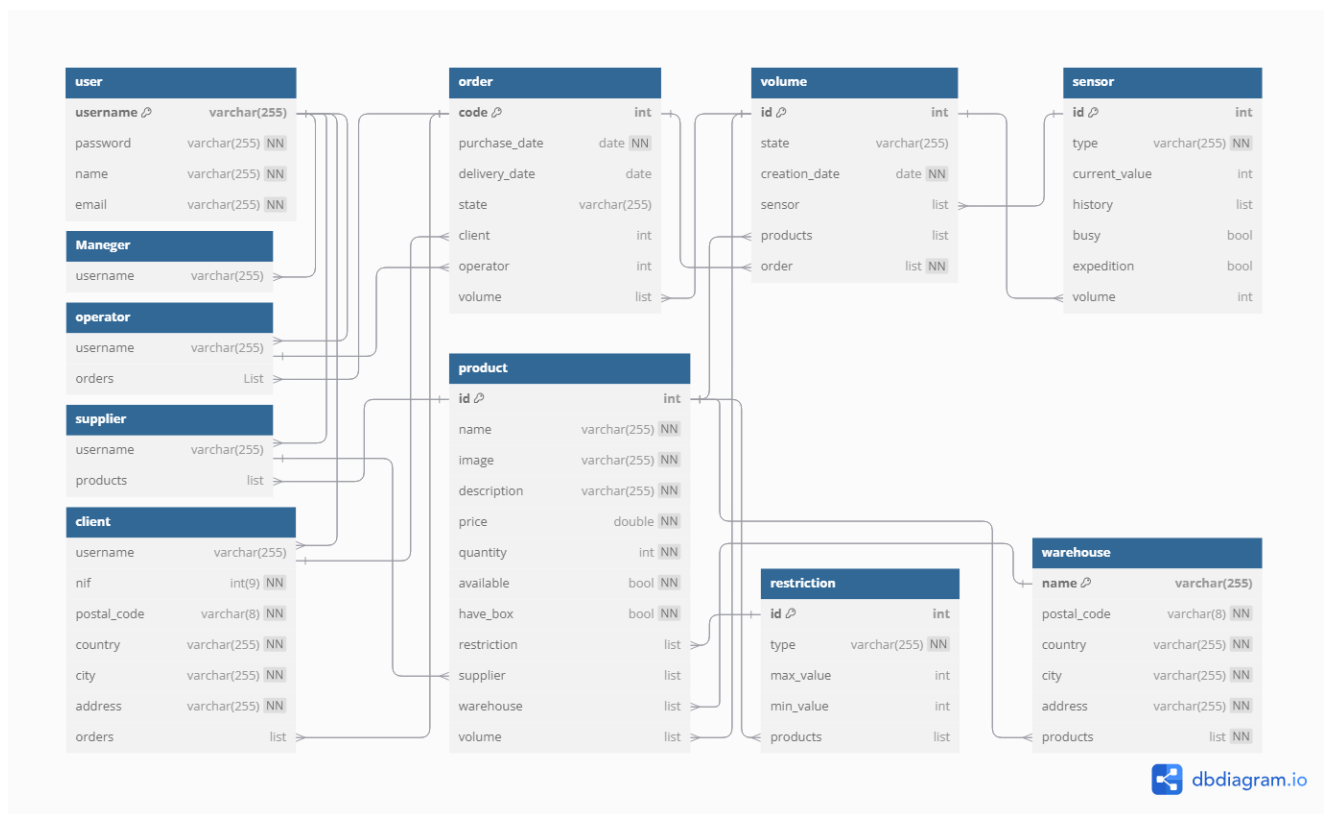
Esta API permite responder a todo o tipo de Pedidos necessários ao negócio da empresa WeDelivery, empresa ligada ao serviço de transporte e armazenamento de embalagens e produtos. Fornece endpoints para todas as funcionalidades da nossa Aplicação WEB.

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Diagrama da Base de dados



## Base URL

**http://localhost:8080/wedelivery/api**

## Endpoints

### 1. Autenticação

#### POST /auth/login

Um User inicia sessão e recebe, para sua segurança, um token JWT.

- **URL:** /auth/login
- **Método:** POST
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
{
  "username": "Goncalo",
  "password": "password"
}
```

- **Response:**

```
{  
  "token": "eyJhbGciOiJIUzI0NCJ9.eyJzdWIiOiJHbDQyYXVlIiwiaWF0IjoxNzMwODIxMzM0LCJleHAiOjE5MzA4MjQ5MzR9.ZDP7ZR4DT6ktuX  
78kVLAQpf9Yb71YS93QQ3Wj29LAapxCG0zGege3PuZy4Mt9hH"  
}
```

## 2. Operadores

## GET /operators

Um Administrador consulta a listagem de todos os Operadores Registrados.

- **URL:** /operators
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWV0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5Mzd9.eyJhbnVw7j4TTuNnxFF4xjDu-  
FVmd3oDlR0AFfW2iuR2pPN2LwP

- **Response:**

```
{
  {
    "email": "Dinis@gmail.com",
    "name": "Dinis Roxo",
    "password": "password",
    "username": "DinisRX"
  },
  {
    "email": "Goncalo@gmail.com",
    "name": "Goncalo Ferreira",
    "password": "password",
    "username": "GoncaloF00"
  }
}
```

## GET /operators/{username}

Um Administrador consulta o perfil de um Operador.

- **URL:** /operators/DinisRX
- **Método:** GET
- **Headers:**
  - **Content-Type:** application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiJlE3MzI2NDE5Mzd9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiJlE3MzI2NDE5Mzd9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
```

- **Response:**

```
{  
  "email": "Dinis@gmail.com",  
  "name": "Dinis Roxo",  
  "password": "password",  
  "username": "DinisRX"  
}
```

## POST /operators

Um Administrador efetua o registo de um Operador na plataforma do sistema.

- **URL:** /operators
- **Método:** POST
- **Headers:**
  - **Content-Type:** application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiJlE3MzI2NDE5Mzd9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiJlE3MzI2NDE5Mzd9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
```

```
{
  "email": "ana@mail.com",
  "name": "Ana",
  "username": "Ana",
  "password": "password"
}
```

- **Response:**

```
{
  "email": "ana@mail.com",
  "name": "Ana",
  "password": "password",
  "username": "Ana"
}
```

### 3. Gestores

#### GET /managers

Um Administrador consulta a listagem de todos os Gestores Registrados.

- **URL:** /managers
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWx0Ij0iJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiJlMzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  {
    "email": "Rui@gmail.com",
    "name": "Rui Manager",
    "password": "password",
    "username": "RuiM100"
  }
}
```

```
    },  
    {  
      "email": "Manager@gmail.com",  
      "name": "André Silva",  
      "password": "password",  
      "username": "AndreS10"  
    }  
  }  
}
```

### GET /managers/{username}

Um Administrador consulta o perfil de um Gestor.

- **URL:** /managers/Rui
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGEiOiJ1bmEiLCJ1b250b25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-  
FVmD3oDlR0AfFW2iuizRJ2vPZN2LwP
```

- **Response:**

```
{  
  "email": "Rui@gmail.com",  
  "name": "Rui Manager",  
  "password": "password",  
  "username": "RuiM100"  
}
```

### POST /managers

Um Administrador efetua o registo de um Gestor na plataforma do sistema.

- **URL:** /managers
- **Método:** POST
- **Headers:**

- **Body:**

```
{
  "email": "margarida@mail.com",
  "name": "Margarida",
  "username": "Margarida",
  "password": "password"
}
```

- **Response:**

```
{
  "email": "margarida@mail.com",
  "name": "Margarida",
  "password": "password",
  "username": "Margarida"
}
```

## GET /managers/{username}/orders

Um Gestor consulta todas as encomendas a si associadas.

- **URL:** /managers/DinisRX/orders

- **Método:** GET

- **Headers:**

- Content-Type: application/json

- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI0NCJ9.eyJzdWIiOiJHbDQyYXVwRjAwIiwiaWF0IjoxNzMyNmMzMzLCJleHAiOjE3MDZlNDk1MzQ5LWUjaWVwRjAwKommvWv7j4TTuNnxFF4xjDu-FVmD3oDLROAFw2iuJR2vPZN2LwP

- **Response:**

```
{
  "code": 3,
  "deliveryDate": "2024-10-18T13:38:32.823Z[UTC]",
  "purchaseDate": "2024-10-18T13:38:32.823Z[UTC]",
  "username": "Goncalo",
  "state": "In Distribution",
  "usernameOperator": "DinisRX"
}
```

## 4. Clientes

## GET /clients

Um Administrador consulta a listagem de todos os Clientes Registrados.

- **URL:** `/clients`
- **Método:** `GET`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NCJ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOjE3MzI2NDU5MzQ5LmUjZj4TTuNnxFF4xjDu-
FVmd3oDlR0AfFW2iuJR2vPZN2LwP
```

- **Response:**

```
{
  {
    "address": "Rua das Igrejas",
    "city": "Leiria",
    "country": "PT",
    "email": "guilherme@gmail.com",
    "name": "Guilherme",
    "nif": 123123124,
    "password": "password",
    "postalCode": "2565-834",
    "username": "Guilherme"
  },
  {
    "address": "Rua das Igrejas",
```



```
    "city": "Leiria",
    "country": "PT",
    "email": "cr7@gmail.com",
    "name": "Papai Cris",
    "nif": 123123125,
    "password": "password",
    "postalCode": "2565-834",
    "username": "Cristiano"
  }
}
```

### GET /clients/{username}

Um Administrador consulta o perfil de um Cliente.

- **URL:** /clients/Goncalo
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiJlMzI2NDUzZd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  "address": "Rua das Igrejas",
  "city": "Leiria",
  "country": "PT",
  "email": "goncalo@gmail.com",
  "name": "Gonalo",
  "nif": 123123123,
  "orders": [
    {
      "code": 1372122800,
      "deliveryDate": "2024-10-22T15:47:16.764Z[UTC]",
      "purchaseDate": "2024-10-22T15:47:16.764Z[UTC]",
      "state": "Shipped",
      "username": "Goncalo",
      "usernameOperator": "GoncaloF00"
```

```

    },
    {
      "code": 1413200289,
      "deliveryDate": "2024-10-22T15:47:16.764Z[UTC]",
      "purchaseDate": "2024-10-22T15:47:16.764Z[UTC]",
      "state": "Delivered",
      "username": "Goncalo",
      "usernameOperator": "DinisRX"
    }
  ],
  "password": "password",
  "postalCode": "2565-834",
  "username": "Goncalo"
}

```

## POST /clients

Um Cliente efetua o registo na plataforma do sistema.

- **URL:** `/clients`
- **Método:** `POST`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWV0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5MzQ5LWUjZj4TTuNnxF  
F4xjDu-FVmd3oDlR0AFw2iuJR2vPZN2LwP

```
{
  "username": "john",
  "email": "johndoe@mail.com",
  "password": "jd",
  "name": "John Doe",
  "courseCode": 1,
  "nif": 444555666,
  "postalCode": "2565-834",
  "country": "PT",
  "city": "Leiria",
  "address": "Rua x"
}
```

- **Response:**

```
{
  "address": "Rua x",
  "city": "Leiria",
  "country": "PT",
  "email": "johndoe@mail.com",
  "name": "John Doe",
  "nif": 444555666,
  "password": "jd",
  "postalCode": "2565-834",
  "username": "john"
}
```

## GET /clients/{username}/orders

Um Cliente consulta todas as suas encomendas realizadas

- **URL:** /clients/Goncalo/orders
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NCJ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOjE3MzI2NDU5MzI0LmVhZG9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iujzRJ2vPZN2LwP
```

- **Response:**

```
{
  "code": 3,
  "deliveryDate": "2024-10-18T13:38:32.823Z[UTC]",
  "purchaseDate": "2024-10-18T13:38:32.823Z[UTC]",
  "username": "Goncalo",
  "state": "In Distribution",
  "usernameOperator": "DinisRX"
}
```

**POST** /clients/Goncalo/email

Um Cliente efetua uma encomenda, e o método post da encomenda chama este endpoint, posteriormente o cliente é notificado por e-mail.

- **URL:** `/clients/{username}/email`
- **Método:** `POST`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP

{
  "subject": "Order 756754685648 created",
  "body": "Order 756754685648 created successfully."
}
```

- **Response:**

```
{
  "status": 200,
  "message": "E-mail sent"
}
```

## 5. Encomendas

### `GET /orders`

Um Gestor consulta a listagem de todas as Encomendas efetuadas.

- **URL:** `/orders`
- **Método:** `GET`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
```

M3LCJleHAI0jE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-  
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP

- **Response:**

```
{
  {
    "code": 1,
    "deliveryDate": "2024-10-18T13:38:32.822Z[UTC]",
    "purchaseDate": "2024-10-18T13:38:32.822Z[UTC]",
    "username": "Guilherme",
    "state": "In Distribution",
    "usernameOperator": "DinisRX"
  },
  {
    "code": 2,
    "deliveryDate": "2024-10-18T13:38:32.823Z[UTC]",
    "purchaseDate": "2024-10-18T13:38:32.823Z[UTC]",
    "username": "Guilherme",
    "state": "In Distribution",
    "usernameOperator": "DinisRX"
  },
  {
    "code": 3,
    "deliveryDate": "2024-10-18T13:38:32.823Z[UTC]",
    "purchaseDate": "2024-10-18T13:38:32.823Z[UTC]",
    "username": "Goncalo",
    "state": "In Distribution",
    "usernameOperator": "DinisRX"
  }
}
```

### GET /orders/{code}

Um Gestor consulta uma Encomenda efetuada.

- **URL:** /orders/1258464486
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpzZW50L3VzZXQIiwiaWF0IjoxNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  "code": 1258464486,
  "deliveryDate": "2024-10-24T23:16:00.949Z[UTC]",
  "purchaseDate": "2024-10-24T23:16:00.949Z[UTC]",
  "state": "Pending",
  "username": "Guilherme",
  "usernameOperator": "DinisRX",
  "volumes": [
    {
      "creationDate": "2024-10-24 23:16:00.991",
      "id": 1494305280,
      "state": "Minor damage"
    }
  ]
}
```

### GET /orders/{code}/volume/{id}

Um Gestor consulta uma Encomenda efetuada e verifica um volume. Este método pode também ser usado por um Cliente que deseje consultar uma Encomenda efetuada por si.

- **URL:** /orders/1494305280/volume/3
- **Método:** GET
- **Headers:**
  - **Content-Type:** application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpzZW50L3VzZXQIiwiaWF0IjoxNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  "creationDate": "2024-10-24 23:16:00.991",
  "id": 1494305280,
  "products": [
    {
      "available": true,
      "description": "Sprite",
      "haveSensor": false,
      "id": 3,
      "image": "sprite.jpg",
      "name": "Sprite",
      "price": 1.5,
      "quantity": 100
    },
    {
      "available": true,
      "description": "Fanta",
      "haveSensor": false,
      "id": 4,
      "image": "fanta.jpg",
      "name": "Fanta",
      "price": 1.5,
      "quantity": 100
    }
  ],
  "sensors": [
    {
      "busy": false,
      "currentValue": 20,
      "expedition": false,
      "id": 3,
      "type": "Temperature"
    },
    {
      "busy": false,
      "currentValue": 20,
      "expedition": false,
      "id": 23,
      "type": "humidity"
    }
  ],
  "state": "Minor damage"
}
```

## POST /orders

Um Cliente efetua uma Encomenda e a mesma é criada em sistema.

- **URL:** `/orders`
- **Método:** `POST`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

- **Response:**



```

"deliveryDate": "2024-10-20T23:02:22.383Z[UTC]",
"purchaseDate": "2024-10-20T23:02:22.383Z[UTC]",
"state": "Pending",
"username": "Guilherme",
"usernameOperator": "DinisRX",
"volumes": [
  {
    "creationDate": "2024-10-24 00:00:00.0",
    "id": 121270755,
    "state": "Significant damage",
    "products": [
      {
        "available": true,
        "description": "Sprite",
        "haveSensor": false,
        "id": 3,
        "image": "sprite.jpg",
        "name": "Sprite",
        "price": 1.5,
        "quantity": 1
      },
      {
        "available": true,
        "description": "Sumol",
        "haveSensor": false,
        "id": 6,
        "image": "sumol.jpg",
        "name": "Sumol",
        "price": 1.5,
        "quantity": 1
      }
    ],
    "sensors": [
      {
        "busy": false,
        "currentValue": 20,
        "expedition": false,
        "id": 5,
        "type": "Temperature"
      },
      {
        "busy": false,
        "currentValue": 20,
        "expedition": false,
        "id": 25,
        "type": "humidity"
      }
    ],
  }
]
}

```

## PATCH /orders/{id}

Um Gestor altera o estado de uma encomenda especificada por {id}.

- **URL:** /orders/761527421
- **Método:** PATCH
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI4NCJ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiJE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP

{
  "state": "Delivered"
}
```

- **Response:**

```
{
  "code": 761527421,
  "deliveryDate": "2024-10-25T14:11:00.389Z[UTC]",
  "purchaseDate": "2024-10-25T14:11:00.389Z[UTC]",
  "state": "Delivered",
  "username": "Guilherme",
  "usernameOperator": "DinisRX"
}
```

## 6. Produtos

## Get /products

Um Utilizador consulta todos os produtos na página de e-commerce.

- **URL:** `/products`
- **Método:** `GET`
- **Headers:**
  - `Content-Type: application/json`
- **Response:**

```
[
  {
    "available": true,
    "description": "Coca-Cola",
    "haveSensor": false,
    "id": 1,
    "image": "coca-cola.jpg",
    "name": "Coca-Cola",
    "price": 1.5,
    "quantity": 0,
    "warehouseName": "Leiria"
  },
  ...,
  {
    "available": true,
    "description": "Sumol",
    "haveSensor": false,
    "id": 6,
    "image": "sumol.jpg",
    "name": "Sumol",
    "price": 1.5,
    "quantity": 100,
    "warehouseName": "Leiria"
  }
]
```

### Get /products/{id}

Um Utilizador consulta um produto específico.

- **URL:** /products/2
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Response:**

```
{
  "available": true,
  "description": "Pepsi",
  "haveSensor": false,
  "id": 2,
  "image": "pepsi.jpg",
  "name": "Pepsi",
  "price": 1.5,
  "quantity": 2,
}
```

```
"warehouseName": "Leiria"
}
```

### Get /products/{name}

Um Utilizador consulta todos os produtos que contenham a palavra {name}.

- **URL:** /products/S
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Response:**

```
[
  {
    "available": true,
    "description": "Sprite",
    "haveSensor": false,
    "id": 3,
    "image": "sprite.jpg",
    "name": "Sprite",
    "price": 1.5,
    "quantity": 100,
    "warehouseName": "Leiria"
  },
  ...,
  {
    "available": true,
    "description": "Sumol",
    "haveSensor": false,
    "id": 6,
    "image": "sumol.jpg",
    "name": "Sumol",
    "price": 1.5,
    "quantity": 100,
    "warehouseName": "Leiria"
  }
]
```

### GET /products/{id}/details

Um Utilizador consulta os detalhes de um repectivo produto.

- **URL:** /products/1/details

- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Response:**

```
{
  "available": true,
  "description": "Coca-Cola",
  "haveSensor": false,
  "id": 1,
  "image": "coca-cola.jpg",
  "name": "Coca-Cola",
  "price": 1.5,
  "quantity": 0,
  "supplier": {
    "email": "safari@mail.com",
    "name": "Safari, LDA",
    "password": "qwerty",
    "username": "safari"
  },
  "warehouse": {
    "address": "Rua das Igrejas",
    "city": "Leiria",
    "name": "Leiria",
    "postalCode": "2565-834"
  }
}
```

## 7. Armazéns

### Get /warehouses

Um Gestor consulta os warehouses existentes.

- **URL:** /warehouses
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ9LWUjZkdWl0iJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
```

FVmD3oDlR0AfFW21ujzRJ2vPZN2LwP

- **Response:**

```
[
  {
    "address": "Rua das Igrejas",
    "city": "Leiria",
    "name": "Leiria",
    "postalCode": "2565-834"
  },
  ...,
  {
    "address": "Rua das Igrejas",
    "city": "Porto",
    "name": "Porto",
    "postalCode": "2565-834"
  }
]
```

## Get /warehouses/{name}

Um Gestor consulta os dados de um warehouse específico.

- **URL:** /warehouses/Leiria
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5Mzd9LCJ0eXAiOiJKV1QiLCJkaWQ6ImVudD3oDlR0AfFW2iuJR2vPZN2LwP

- **Response:**

```
{
  "address": "Rua das Igrejas",
  "city": "Leiria",
}
```

```
"name": "Leiria",  
"postalCode": "2565-834"  
}
```

### Get /warehouses/{name}/products

Um Gestor consulta todos os produtos que existem num determinado warehouse.

- **URL:** /warehouses/Leiria/products
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ9LWUjZjdWbWV7j4TTuNnxFF4xjDu-  
FVmD3oDlR0Afw2iuizRj2vPZN2LwP
```

- **Response:**

```
{  
  "address": "Rua das Igrejas",  
  "city": "Leiria",  
  "name": "Leiria",  
  "postalCode": "2565-834",  
  "products": [  
    {  
      "available": true,  
      "description": "Coca-Cola",  
      "haveSensor": false,  
      "id": 1,  
      "image": "coca-cola.jpg",  
      "name": "Coca-Cola",  
      "price": 1.5,  
      "quantity": 0  
    },  
    ...  
    {  
      "available": true,  
      "description": "Sprite",  
      "haveSensor": false,  
      "id": 3,  
    }  
  ]  
}
```

```

    "image": "sprite.jpg",
    "name": "Sprite",
    "price": 1.5,
    "quantity": 100
  }
]
}

```

### Get /warehouses/{name}/products/{id}

Um Gestor consulta um determinado produto {id} num determinado warehouse {name}.

- **URL:** /warehouses/Leiria/products/1
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```

Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXLTJ5bWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiJE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iuujzRJ2vPZN2LwP

```

- **Response:**

```

{
  "address": "Rua das Igrejas",
  "city": "Leiria",
  "name": "Leiria",
  "postalCode": "2565-834",
  "products": [
    {
      "available": true,
      "description": "Coca-Cola",
      "haveSensor": false,
      "id": 1,
      "image": "coca-cola.jpg",
      "name": "Coca-Cola",
      "price": 1.5,
      "quantity": 0,
      "supplier": {
        "email": "safari@mail.com",
        "name": "Safari, LDA",

```



```

    "password": "qwerty",
    "username": "safari"
  }
}
]
```

## 8. Fabricantes

## GET /suppliers

Um Gestor consulta os Suppliers existentes

- **URL:** /suppliers
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI0NCJ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzM4MzY3LCJleHAiOjE3MzI2NDUyZm91bmVwVW7j4TTuNnxFF4xjDu-  
FVmD3oDlROAfFW2iuJR2vPZN2LwP
```

- **Response:**

```
[
  {
    "email": "drinklfa@mail.com",
    "name": "DrinkLFA, LDA",
    "password": "qwerty",
    "username": "drinkLFA"
  },
  ...,
  {
    "email": "safari@mail.com",
    "name": "Safari, LDA",
    "password": "qwerty",
    "username": "safari"
  }
]
```

**GET /suppliers/{name} ou /suppliers/{name}/products**

Um Gestor consulta um determinado Supplier e os seus respectivos produtos

- **URL:** /suppliers/safari
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWV0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5MzQ5LWUjZj4TTUuNnFF4xjDu-  
FVmd3ODlR0AFfW2iuRj2vPZN2LwP

- **Response:**

```
{
  "email": "safari@mail.com",
  "name": "Safari, LDA",
  "password": "qwerty",
  "products": [
    {
      "available": true,
      "description": "Coca-Cola",
      "haveSensor": false,
      "id": 1,
      "image": "coca-cola.jpg",
      "name": "Coca-Cola",
      "price": 1.5,
      "quantity": 0
    },
    ...,
    {
      "available": true,
      "description": "Sumol",
      "haveSensor": false,
      "id": 6,
      "image": "sumol.jpg",
      "name": "Sumol",
      "price": 1.5,
      "quantity": 100
    }
  ],
}
```

```
{
  "username": "safari"
}
```

## GET /suppliers/{name}/products/{id}

Um Gestor efetua a consulta de um produto identificado por `{id}`,  
pertencente a um fornecedor designado por `{name}`.

- **URL:** `/suppliers/safari/products/2`
- **Método:** `GET`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  "email": "safari@mail.com",
  "name": "Safari, LDA",
  "password": "qwerty",
  "products": [
    {
      "available": true,
      "description": "Pepsi",
      "haveSensor": false,
      "id": 2,
      "image": "pepsi.jpg",
      "name": "Pepsi",
      "price": 1.5,
      "quantity": 2
    }
  ],
  "username": "safari"
}
```

## 9. Volumes

## GET /volumes

Um Gestor consulta os volumes existentes.

- **URL:** /volumes
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWx0IiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-  
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
[  
  {  
    "creationDate": "2024-10-24 00:00:00.0",  
    "id": 121270755,  
    "state": "Significant damage"  
  },  
  ...,  
  {  
    "creationDate": "2024-10-24 16:01:54.077",  
    "id": 1019509487,  
    "state": "Moderate damage"  
  }  
]
```

## GET /volumes/{id}

Um Gestor consulta um volume registado.

- **URL:** /volumes/1058107426
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-  
FVmD3oDlR0AfFW2iujzRJ2vPZN2LwP

- **Response:**

```
{
  "creationDate": "2024-10-24 20:36:54.968",
  "id": 1058107426,
  "products": [
    {
      "available": true,
      "description": "7up",
      "haveSensor": false,
      "id": 5,
      "image": "7up.jpg",
      "name": "7up",
      "price": 1.5,
      "quantity": 100
    },
    ...,
    {
      "available": true,
      "description": "Sumol",
      "haveSensor": false,
      "id": 6,
      "image": "sumol.jpg",
      "name": "Sumol",
      "price": 1.5,
      "quantity": 100
    }
  ],
  "sensors": [
    {
      "busy": false,
      "currentValue": 20,
      "expedition": false,
      "id": 5,
      "type": "Temperature"
    },
    ...,
    {
      "busy": false,
      "currentValue": 20,
      "expedition": false,
      "id": 25,
      "type": "humidity"
    }
  ]
}
```

```
    }  
  ],  
  "state": "Moderate damage"  
}
```

### GET /volumes/{id}/details

Um Gestor consulta, ao detalhe, um volume registado.

- **URL:** /volumes/1058107426/details
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWx0IiwiaWF0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDU5MzZ9LWUjZj4TTuNnxFF4xjDu-  
FVmD3oDlR0AFw2iujzRJ2vPZN2LwP
```

- **Response:**

```
{  
  "creationDate": "2024-10-24 20:36:54.968",  
  "id": 1058107426,  
  "products": [  
    {  
      "available": true,  
      "description": "7up",  
      "haveSensor": false,  
      "id": 5,  
      "image": "7up.jpg",  
      "name": "7up",  
      "price": 1.5,  
      "quantity": 100,  
      "supplier": {  
        "email": "safari@mail.com",  
        "name": "Safari, LDA",  
        "password": "qwerty",  
        "username": "safari"  
      },  
      "warehouse": {  
        "address": "Rua das Igrejas",
```

```

        "city": "Leiria",
        "name": "Leiria",
        "postalCode": "2565-834"
    },
    {
        "available": true,
        "description": "Sumol",
        "haveSensor": false,
        "id": 6,
        "image": "sumol.jpg",
        "name": "Sumol",
        "price": 1.5,
        "quantity": 100,
        "supplier": {
            "email": "safari@mail.com",
            "name": "Safari, LDA",
            "password": "qwerty",
            "username": "safari"
        },
        "warehouse": {
            "address": "Rua das Igrejas",
            "city": "Leiria",
            "name": "Leiria",
            "postalCode": "2565-834"
        }
    }
],
"sensors": [
    {
        "busy": false,
        "currentValue": 20,
        "expedition": false,
        "id": 5,
        "type": "Temperature"
    },
    {
        "busy": false,
        "currentValue": 20,
        "expedition": false,
        "id": 25,
        "type": "humidity"
    }
],
"state": "Moderate damage"
}

```

## 10. Sensores

GET /sensors

Um Gestor consulta os sensores existentes.

- **URL:** `/sensors`
- **Método:** `GET`
- **Headers:**
  - `Content-Type: application/json`
- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWV0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5MzQ5LWUjZj4TTUuNnFF4xjDu-  
FVmd3ODlROAFw2iuJRJ2vPZN2LwP

- **Response:**

```
[
  {
    "busy": false,
    "currentValue": 20,
    "expedition": false,
    "id": 2,
    "type": "Temperature",
    "sensorValues": [
      {
        "id": 4,
        "value": "31",
        "date": 1737216084156
      }
    ]
  },
  {
    "busy": false,
    "currentValue": 20,
    "expedition": false,
    "id": 4,
    "type": "Temperature",
    "sensorValues": [
      {
        "id": 5,
        "value": "10",
        "date": 1737216084159
      }
    ]
  }
]
```



## GET /sensors/{id}

Um Gestor consulta um sensor em específico.

- **URL:** /sensors/2
- **Método:** GET
- **Headers:**
  - **Content-Type:** application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ0IiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-  
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{  
  "busy": false,  
  "currentValue": 20,  
  "expedition": false,  
  "id": 2,  
  "type": "Temperature",  
  "sensorValues": [  
    {  
      "id": 2,  
      "value": "23",  
      "date": 1737216084151  
    }  
  ]  
}
```

## GET /sensors/{id}/details

Um Gestor consulta detalhadamente um sensor em específico, contendo assim a informação do volume associado ao sensor especificado.

- **URL:** /sensors/1
- **Método:** GET

- **Headers:**

- `Content-Type: application/json`

- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWx0Ij0iJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  "id": 3,
  "type": "Temperature",
  "currentValue": "30",
  "busy": false,
  "expedition": false,
  "volume": {
    "id": 741966499,
    "state": "Minor damage",
    "creationDate": "2025-01-18 16:01:24.133"
  },
  "sensorValues": [
    {
      "id": 3,
      "value": "30",
      "date": 1737216084154
    }
  ]
}
```

### `PATCH /sensors/{id}`

Um gestor altera o valor atual de um sensor especificando o seu {id}.

- **URL:** `/sensors/1`

- **Método:** `PATCH`

- **Headers:**

- `Content-Type: application/json`

- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI4NCJ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP

{
  "currentValue": 50
}
```

- **Response:**

```
{
  "busy": false,
  "currentValue": 50,
  "expedition": false,
  "id": 1,
  "type": "Temperature"
}
```

### DELETE /sensors/{id}

Um Gestor elimina um sensor especificando o seu {id}.

- **URL:** /sensors/1
- **Método:** DELETE
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer
eyJhbGciOiJIUzI4NCJ9.eyJzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz
M3LCJleHAiOiE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNxFF4xjDu-
FVmD3oDlR0AfFW2iuJzRJ2vPZN2LwP
```

- **Response:**

```
{
  Sensor com ID 1 foi removido com sucesso.
}
```

## 11. Restrições

### GET /restrictions

Um Gestor consulta as restrições existentes.

- **URL:** /restrictions
- **Método:** GET
- **Headers:**
  - Content-Type: application/json
- **Body:**

```
Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cCI6IkpXZWQ9LWUjZzdWIiOiJHb25jYWxvRjAwIiwiaWF0IjoxNzMyNjM4Mz  
M3LCJleHAiOiJlE3MzI2NDE5Mzd9.-UjahwGa9vKommvWv7j4TTuNnxFF4xjDu-  
FVmD3oDlR0Afw2iuJzRJ2vPZN2LwP
```

- **Response:**

```
[  
  {  
    "id": 1,  
    "maxValue": 25.4,  
    "minValue": 19.5,  
    "products": [],  
    "type": "Temperature"  
  },  
  {  
    "id": 2,  
    "maxValue": 25.4,  
    "minValue": 99.0,  
    "products": [],  
    "type": "Humidity"  
  }  
]
```

### GET /restrictions{id}

Um Gestor consulta uma restrição em específico.

- **URL:** /restrictions/1
- **Método:** GET

- **Headers:**

- Content-Type: application/json

- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWV0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5MzQ5LWUjZj4TTUuNnFF4xjDu-  
FVmd3ODlR0AFw2iujzRJ2vPZN2LwP

- **Response:**

```
{
  "id": 1,
  "maxValue": 25.4,
  "minValue": 19.5,
  "products": [],
  "type": "Temperature"
}
```

## GET /restrictions{id}/details

Um Gestor consulta detalhadamente uma restrição em específico, obtendo também os produtos associados à mesma.

- **URL:** /restrictions/1/details

- **Método:** GET

- **Headers:**

- Content-Type: application/json

- **Body:**

Authorization: Bearer  
eyJhbGciOiJIUzI1NiIsInR5cGE6YWV0IjoxNjM4Mz  
M3LCJleHAiOiE3MzI2NDE5MzQ5LWUjZj4TTUuNnxFF4xjDu-  
FVmd3oDlR0AFw2iuJRj2vPZN2LwP

- **Response:**

```
{
  "id": 1,
  "maxValue": 25.4,
  "minValue": 19.5,
  "products": [
    {
      "available": true,
      "description": "Coca-Cola",
      "haveSensor": false,
      "id": 1,
      "image": "coca-cola.jpg",
      "name": "Coca-Cola",
      "price": 1.5,
      "quantity": -3
    },
    {
      "available": true,
      "description": "Pepsi",
      "haveSensor": false,
      "id": 2,
      "image": "pepsi.jpg",
      "name": "Pepsi",
      "price": 1.5,
      "quantity": 0
    }
  ],
  "type": "Temperature"
}
```

---

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## Cliente

Professor João Ferreira

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# GitHub