

# Energy Monitor

Tech Challenge - Graduate/Pós-Graduação

GitHub Repository: <https://github.com/igorgrv/energyMonitor-graduate>

## About

Welcome to Energy Monitor! An innovative project that combines the powerful technologies of:

- Java 17;
- Maven;
- Spring Boot;
- Spring Validation;
- Lombok;

## Postman collection

Pos [tech-energyMonitor-graduate.postman\\_collection.json](#)

## Challenges

- Finding best practices for a restfull api
- Solution: <https://www.alura.com.br/artigos/rest-principios-e-boas-praticas>

# FASE 1 – inputs/outputs ☕

- BaseUrl: <http://localhost:8080>

## Location/Address 🏠

### Find All Locations

- Request: GET -> {baseUrl}/locations
- Input: N/A
- Output:

```
// HTTP 200
[
  {
    "idLocation": 1,
    "address": "Rua 1",
    "number": 1,
    "neighborhood": "Vila Olímpia",
    "city": "São Paulo",
    "state": "SP"
  },
  {
    "idLocation": 2,
    "address": "Rua 1.1",
    "number": 1,
    "neighborhood": "Pirituba",
    "city": "São Paulo",
    "state": "SP"
  },
  {
    "idLocation": 3,
    "address": "Rua 2",
    "number": 2,
    "neighborhood": "Ipanema",
```

```
    "city": "Rio de Janeiro",
    "state": "RJ"
  },
  {
    "idLocation": 4,
    "address": "Rua 3",
    "number": 3,
    "neighborhood": "Camanducaia",
    "city": "Belo Horizonte",
    "state": "MG"
  }
]
```

## FindBy Id

- Request: GET -> {baseUrl}/locations/{id\_location}
- Input: GET -> {baseUrl}/locations / 1
- Output:

```
// HTTP 200
{
  "idLocation": 1,
  "address": "Rua 1",
  "number": 1,
  "neighborhood": "Vila Olímpia",
  "city": "São Paulo",
  "state": "SP"
}
```

## Create

- Request: POST -> {baseUrl}/locations
- Input:

```
{
  "address": "Rua 4",
  "number": 1,
  "neighborhood": "Vila Olímpia",
  "city": "São Paulo",
  "state": "SP"
}
```

- Output:

```
// HTTP 201
{
  "idLocation": 1151439646,
  "address": "Rua 4",
  "number": 1,
  "neighborhood": "Vila Olímpia",
  "city": "São Paulo",
  "state": "SP"
}
```

## UpdateBy Id

- Request: PUT -> {baseUrl}/locations/{id\_location}
- Input: PUT -> {baseUrl}/locations / 3

```
{  
  "address": "Rua 10",  
  "number": 1,  
  "neighborhood": "Vila Olímpia",  
  "city": "São Paulo",  
  "state": "SP"  
}
```

- Output:

```
// HTTP 200  
{  
  "address": "Rua 10",  
  "number": 1,  
  "neighborhood": "Vila Olímpia",  
  "city": "São Paulo",  
  "state": "SP"  
}
```

## Delete

- Request: DELETE -> {baseUrl}/locations/{id\_location}
- Input: DELETE -> {baseUrl}/locations / 3
- Output:

```
// 200  
Location was deleted
```

# User

## Find All Users

- Request: GET -> {baseUrl}/users
- Input: N/A
- Output:

```
// HTTP 200
[

  {
    "idUser": 1,
    "name": "Joao",
    "birth": "1996-03-08",
    "gender": "MALE",
    "relative": "FATHER"
  },
  {
    "idUser": 2,
    "name": "Maria",
    "birth": "1996-03-08",
    "gender": "FEMALE",
    "relative": "MOTHER"
  },
  {
    "idUser": 3,
    "name": "Vlad",
    "birth": "1986-03-08",
    "gender": "MALE",
    "relative": "SON"
  }
]
```

## FindBy Id

- Request: GET -> {baseUrl}/users/{id\_user}
- Input: GET -> {baseUrl}/users / 1
- Output:

```
// HTTP 200
{
  "idUser": 1,
  "name": "Joao",
  "birth": "1996-03-08",
  "gender": "MALE",
  "relative": "FATHER"
}
```

## Create

- Request: POST -> {baseUrl}/users
- Input:

```
{
  "name": "Joao2",
  "birth": "1996-03-08",
  "gender": "MALE",
  "relative": "SON"
}
```

- Output:

```
// HTTP 201
{
  "idUser": 1828481121,
  "name": "Joao2",
  "birth": "1996-03-08",
  "gender": "MALE",
  "relative": "SON"
}
```

## UpdateBy Id

- Request: PUT -> {baseUrl}/users/{id\_user}
- Input: PUT -> {baseUrl}/users / 3

```
{
  "name": "Gustavo",
  "birth": "1992-02-02",
  "gender": "MALE",
  "relative": "SON"
}
```

- Output:

```
// HTTP 200
{
  "name": "Gustavo",
  "birth": "1992-02-02",
  "gender": "MALE",
  "relative": "SON"
}
```



## Delete

- Request: DELETE -> {baseUrl}/users/{id\_user}
- Input: DELETE -> {baseUrl}/users / 3
- Output:

```
// 200
```

```
User was deleted
```

## Appliance

### Find All Appliances

- Request: GET -> {baseUrl}/appliances
- Input: N/A
- Output:

```
// HTTP 200
```

```
[  
  {  
    "idAppliance": 1,  
    "name": "TV",  
    "model": "Samsung QN85A",  
    "watts": 100  
  },  
  {  
    "idAppliance": 2,  
    "name": "XBOX",  
    "model": "Series X",  
    "watts": 100  
  },  
  {  
    "idAppliance": 3,
```

```
    "name": "Playstation",
    "model": "Verison 5",
    "watts": 100
  }
]
```

## FindBy Id

- Request: GET -> {baseUrl}/appliances/{id\_appliance}
- Input: GET -> {baseUrl}/appliances / 3
- Output:

```
// HTTP 200
{
  "idAppliance": 3,
  "name": "Playstation",
  "model": "Verison 5",
  "watts": 100
}
```

## Create

- Request: POST -> {baseUrl}/appliances
- Input:

```
{
  "name": "XBOX",
  "model": "Series ONE",
  "watts": 100
}
```

- Output:

```
// HTTP 201
{
  "idAppliance": 340550821,
  "name": "XBOX",
  "model": "Series ONE",
  "watts": 100
}
```

## UpdateBy Id

- Request: PUT -> {baseUrl}/appliances/{id\_appliance}
- Input: PUT -> {baseUrl}/appliances / 3

```
{
  "name": "XBOX",
  "model": "Series X",
  "watts": 100
}
```

- Output:

```
// HTTP 200
{
  "name": "XBOX",
  "model": "Series X",
  "watts": 100
}
```

## Delete

- Request: DELETE -> {baseUrl}/appliances/{id\_appliance}
- Input: PUT -> {baseUrl}/appliances / 3
- Output:

```
// 200
```

```
Appliance was deleted
```