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# Bootcamp Java

FRAMEWORKS | Profº. Henrique

# Apresentação



Prof. **Henrique Rocha Almeida**

- Formado em Análise e Desenvolvimento de Sistemas (UniCesumar - Maringá/PR), Especialista em Java (UTFPR - Cornélio Procópio/PR).
- Desenvolvedor Full-Stack.
- Professor na TI Academy Brasil.

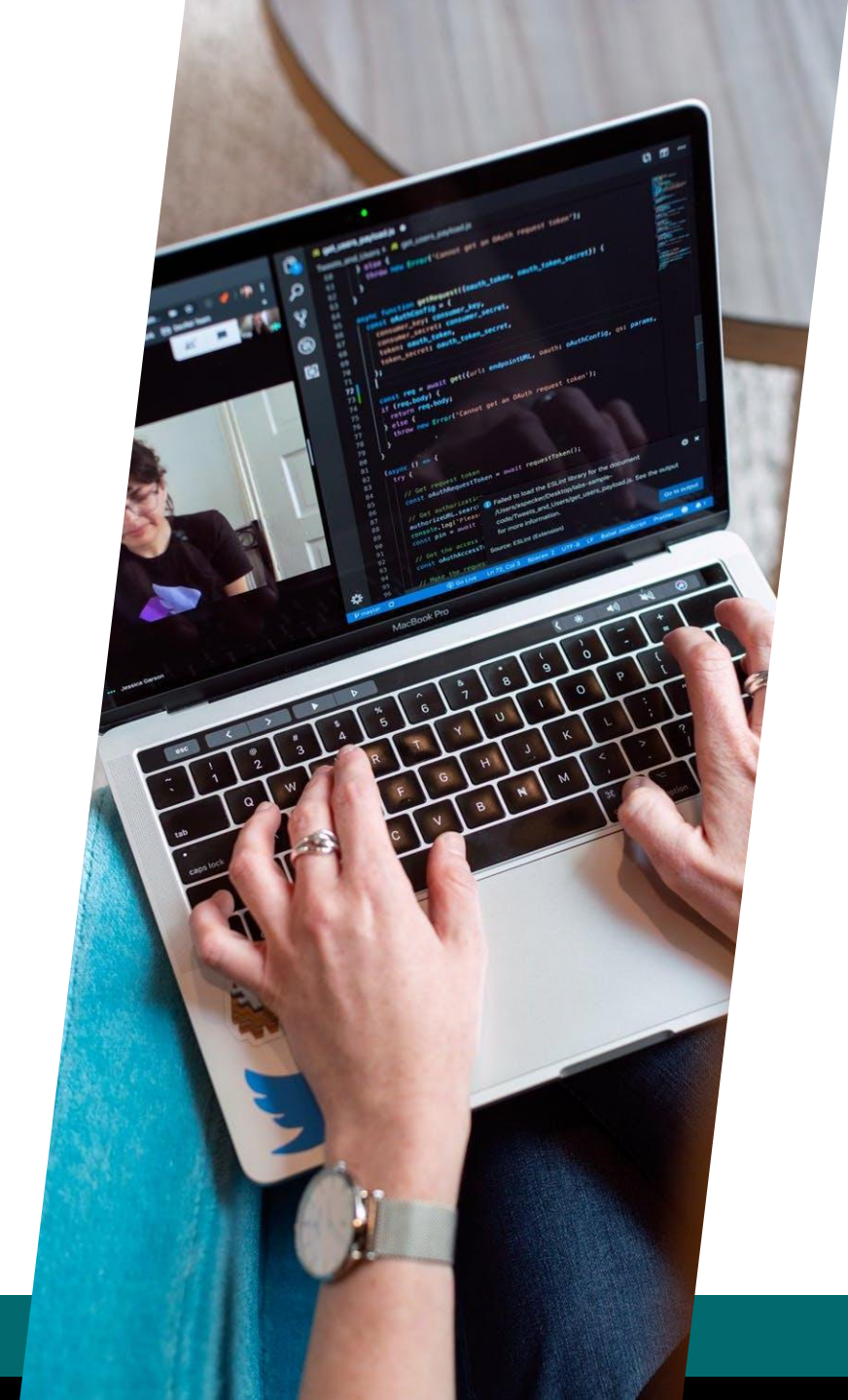
## Java: Frameworks

- 1. SpringBoot (API)
- 1. JUnit (Testes)
- 1. Docker e Integração Contínua



## Antes de começar...

- MySql (Workbench, DBeaver)
- Postman
- IDE (Eclipse, IntelliJ, NetBeans)







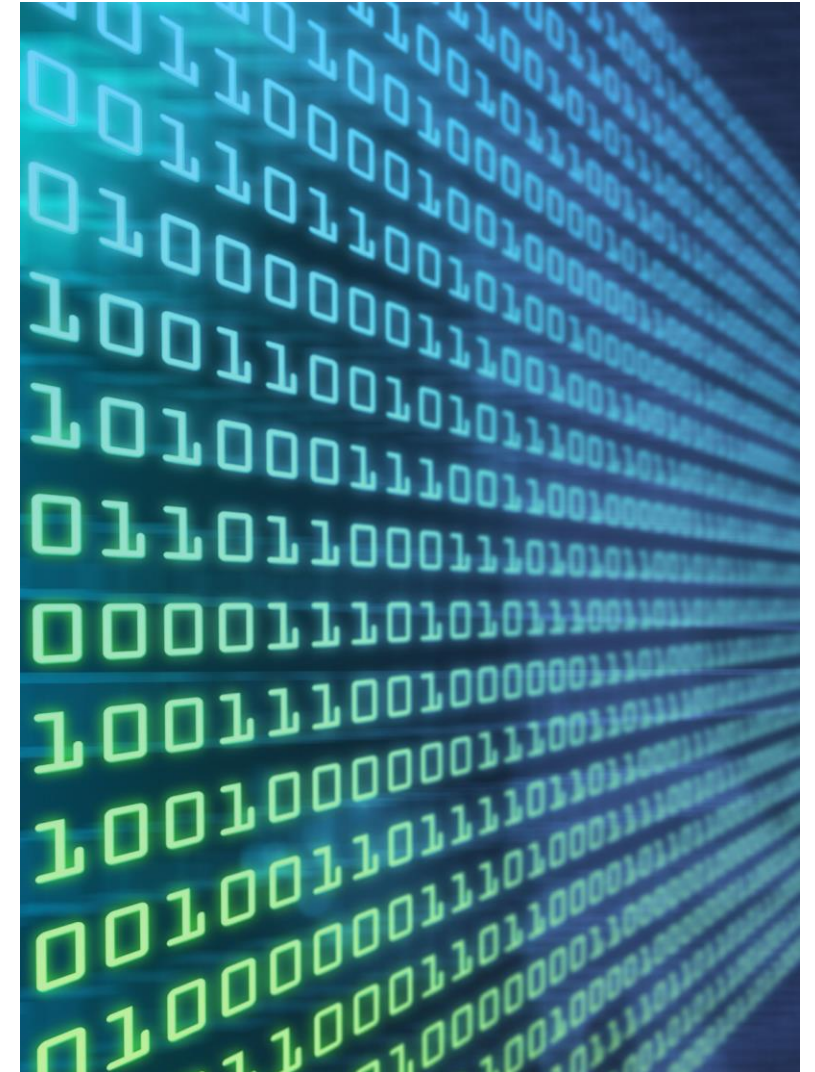
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# Configuração

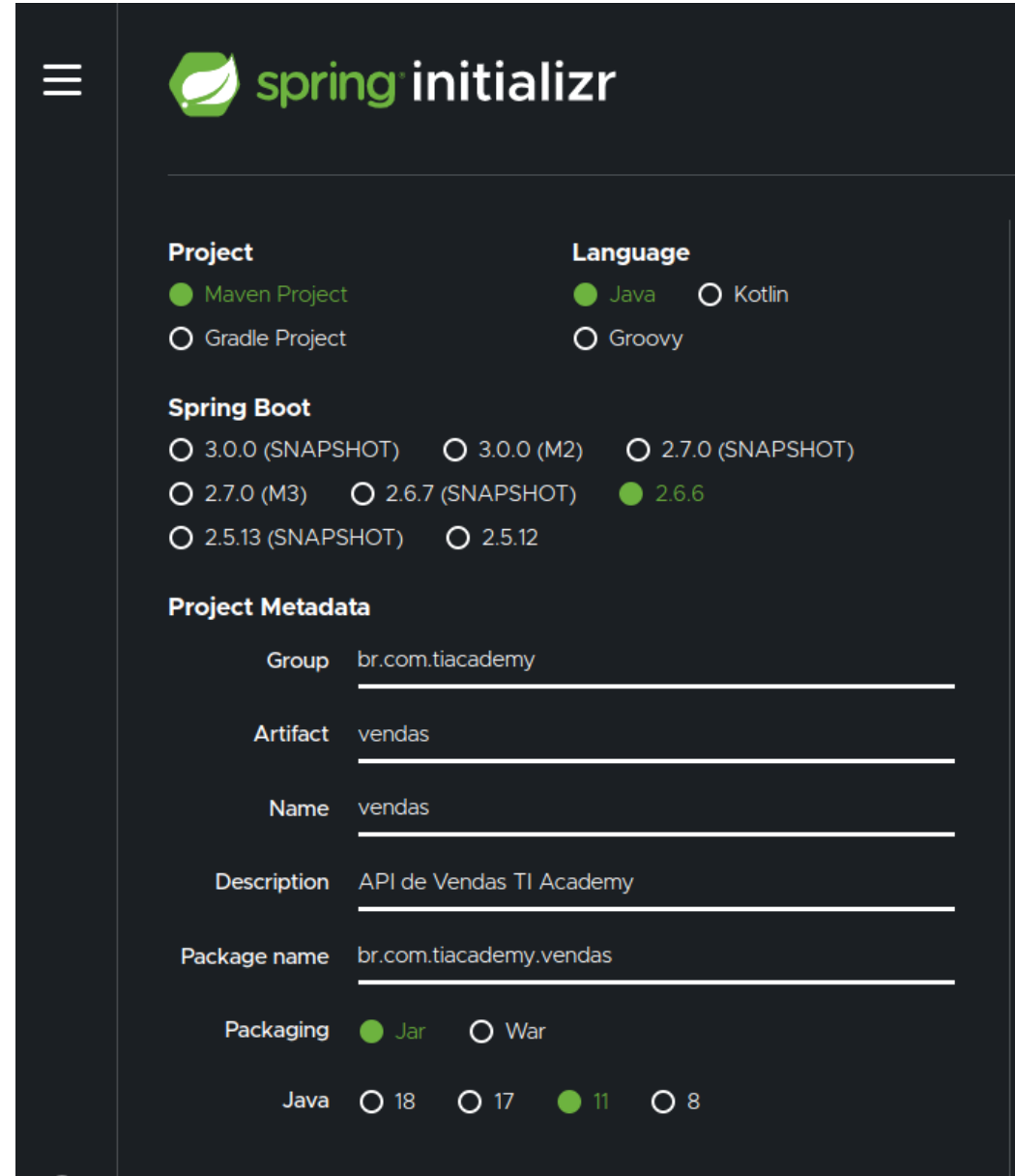
Vamos praticar?

## Spring Boot

- site documentação ( <https://spring.io/> )
- configuração ( <https://start.spring.io/> )
- repositório maven  
( <https://mvnrepository.com/> )



# Configurações iniciais do projeto



The screenshot shows the Spring Initializr web application interface. It features a dark theme with a sidebar on the left containing a hamburger menu icon. The main content area is divided into sections for configuring a new project. The 'Project' section has radio buttons for 'Maven Project' (selected) and 'Gradle Project'. The 'Language' section has radio buttons for 'Java' (selected), 'Kotlin', and 'Groovy'. The 'Spring Boot' section has radio buttons for various versions: '3.0.0 (SNAPSHOT)', '3.0.0 (M2)', '2.7.0 (SNAPSHOT)', '2.7.0 (M3)', '2.6.7 (SNAPSHOT)', '2.6.6' (selected), '2.5.13 (SNAPSHOT)', and '2.5.12'. The 'Project Metadata' section contains text input fields for 'Group' (br.com.tiacademy), 'Artifact' (vendas), 'Name' (vendas), 'Description' (API de Vendas TI Academy), and 'Package name' (br.com.tiacademy.vendas). At the bottom, the 'Packaging' section has radio buttons for 'Jar' (selected) and 'War', and the 'Java' section has radio buttons for versions '18', '17', '11' (selected), and '8'.

**Project**

☒ Maven Project ☐ Gradle Project

**Language**

☒ Java ☐ Kotlin ☐ Groovy

**Spring Boot**

☐ 3.0.0 (SNAPSHOT) ☐ 3.0.0 (M2) ☐ 2.7.0 (SNAPSHOT) ☐ 2.7.0 (M3) ☐ 2.6.7 (SNAPSHOT) ☒ 2.6.6 ☐ 2.5.13 (SNAPSHOT) ☐ 2.5.12

**Project Metadata**

Group

Artifact

Name

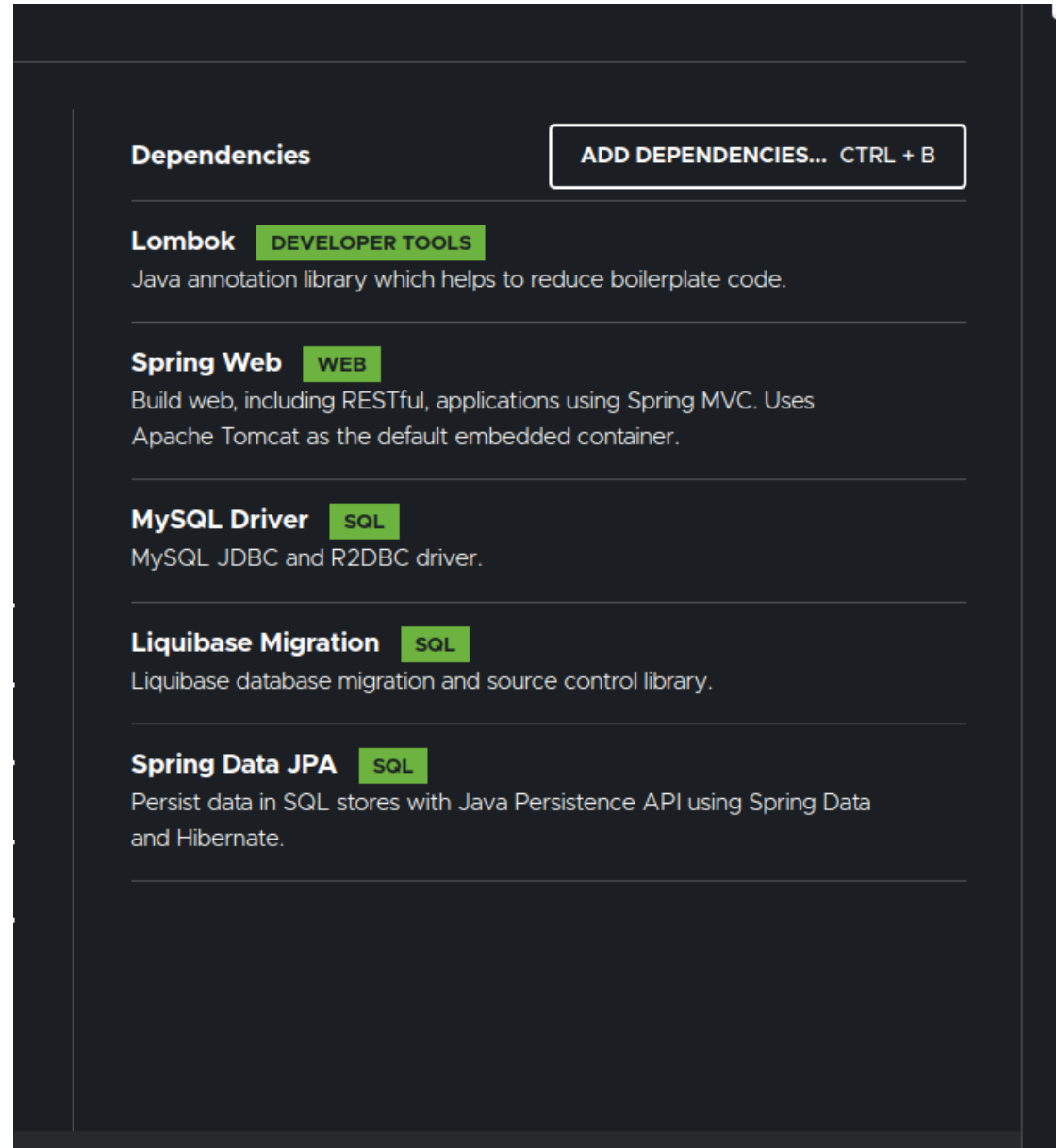
Description

Package name

Packaging ☒ Jar ☐ War

Java ☐ 18 ☐ 17 ☒ 11 ☐ 8

# Configurações iniciais do projeto





# Configurações iniciais do projeto

☐ 2.7.0 (M3)

☐ 2.6.7 (SNAPSHOT)

☒ 2.6.6

☐ 2.5.13 (SNAPSHOT)

☐ 2.5.12

Project Metadata

Group

br.com.tiacademy

Artifact

vendas

Name

vendas

Description

API de Vendas TI Academy

Package name

br.com.tiacademy.vendas

Packaging

☒ Jar

☐ War

Java

☐ 18

☐ 17

☒ 11

☐ 8

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

MySQL Driver

SQL

MySQL JDBC and R2DBC driver.

Liquibase Migration

SQL

Liquibase database migration and source control library.

Spring Data JPA

SQL

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

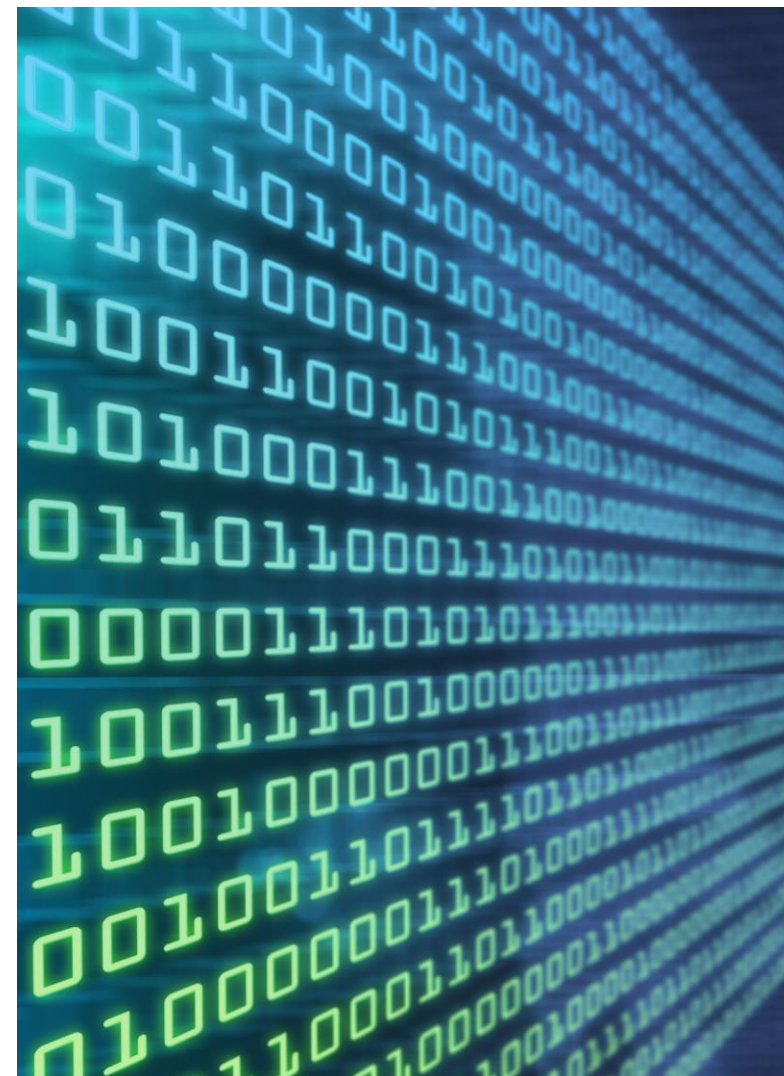
GENERATE CTRL + ↵

EXPLORE CTRL + SPACE

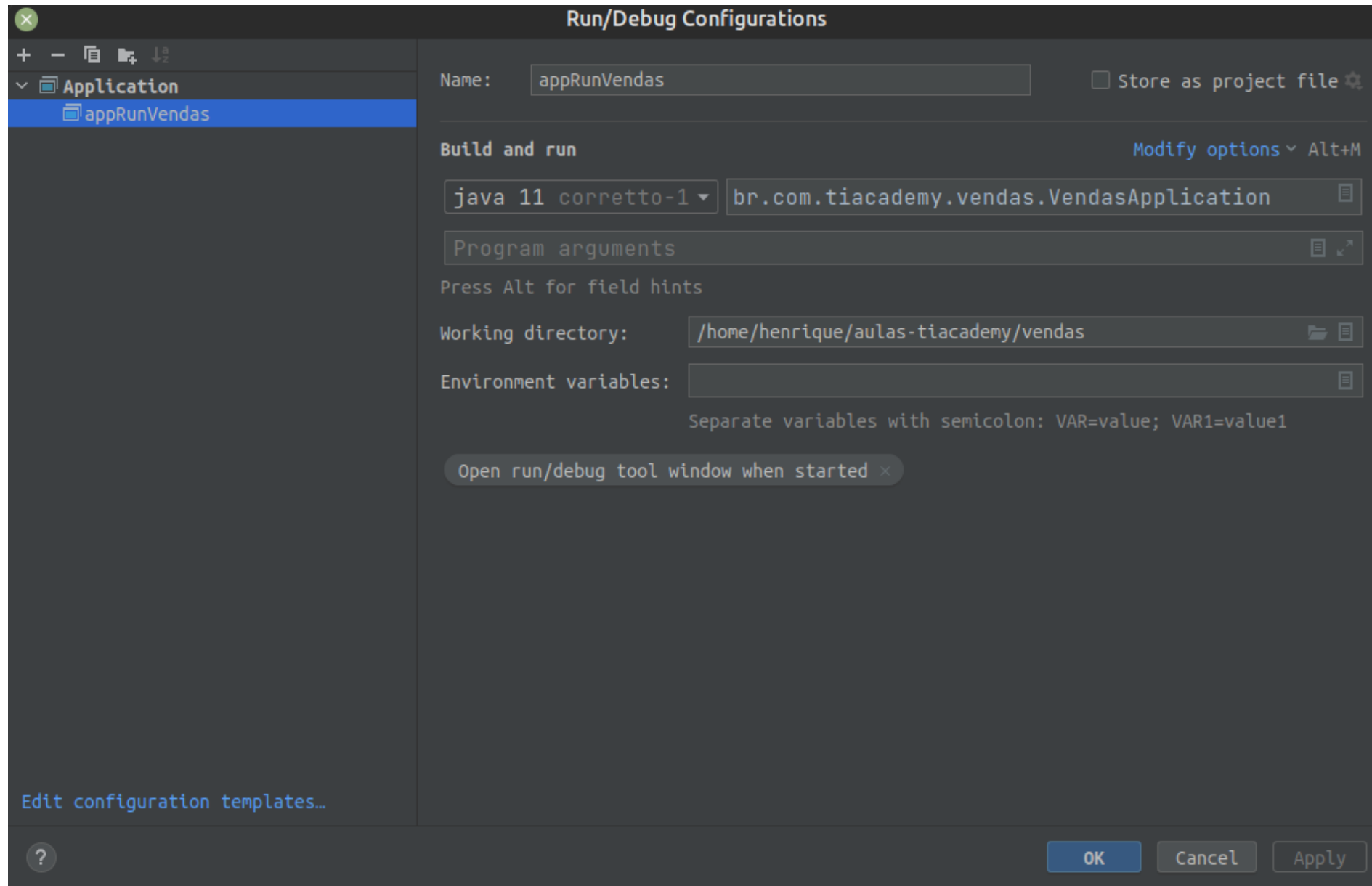
SHARE...

## Configurações

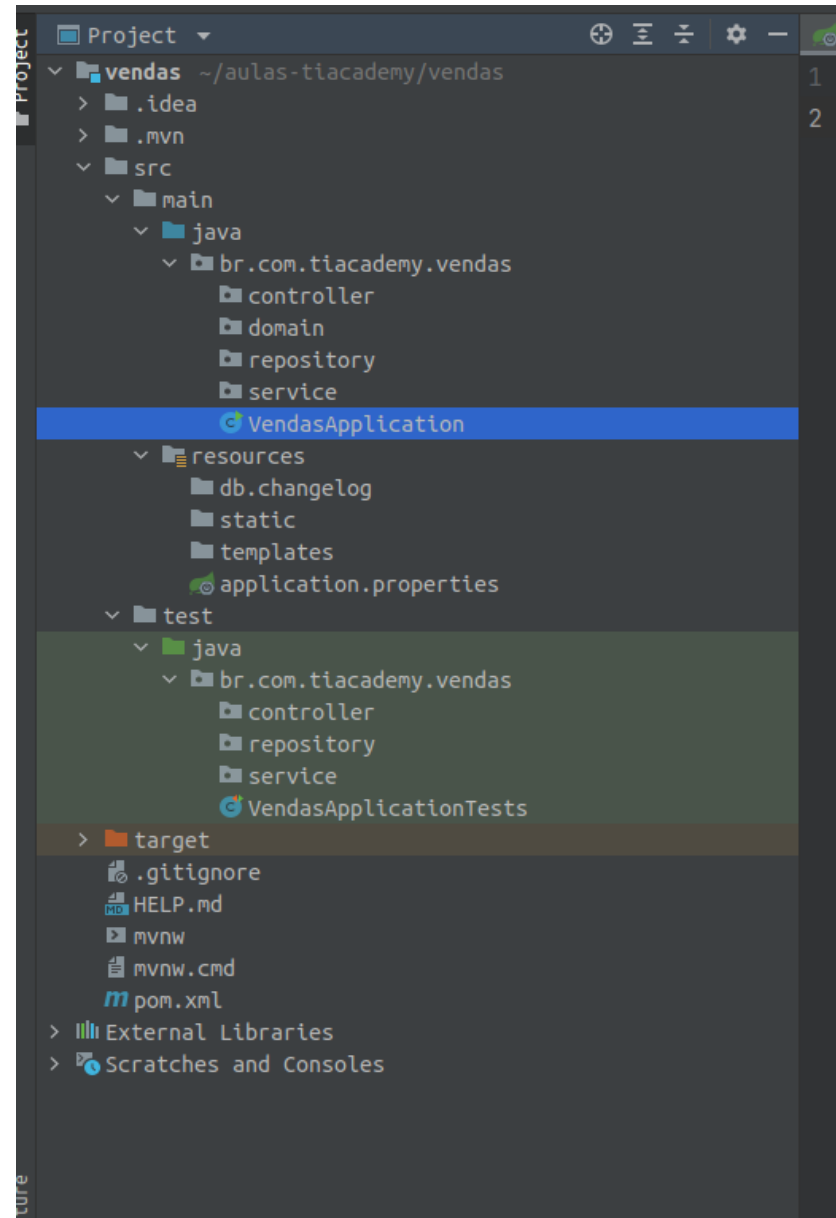
- descompactar pasta
- abrir na sua IDE favorita



# Configurações



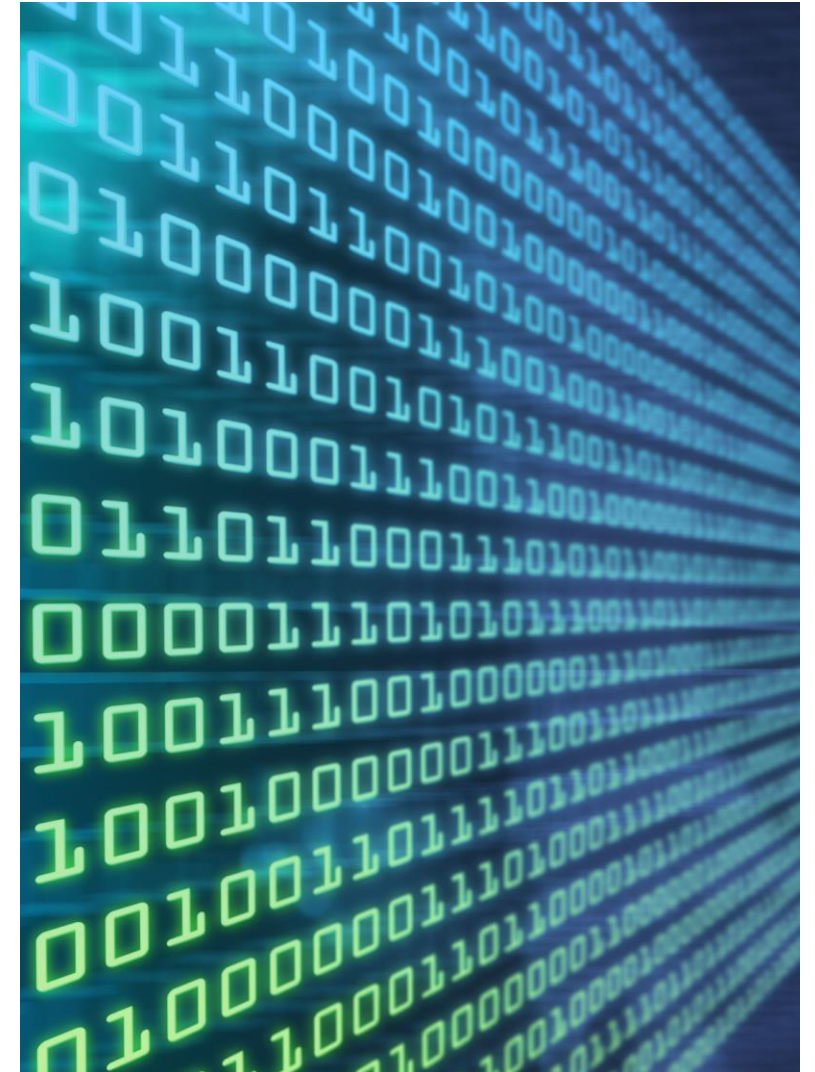
# Estrutura de arquivos





# Liquibase

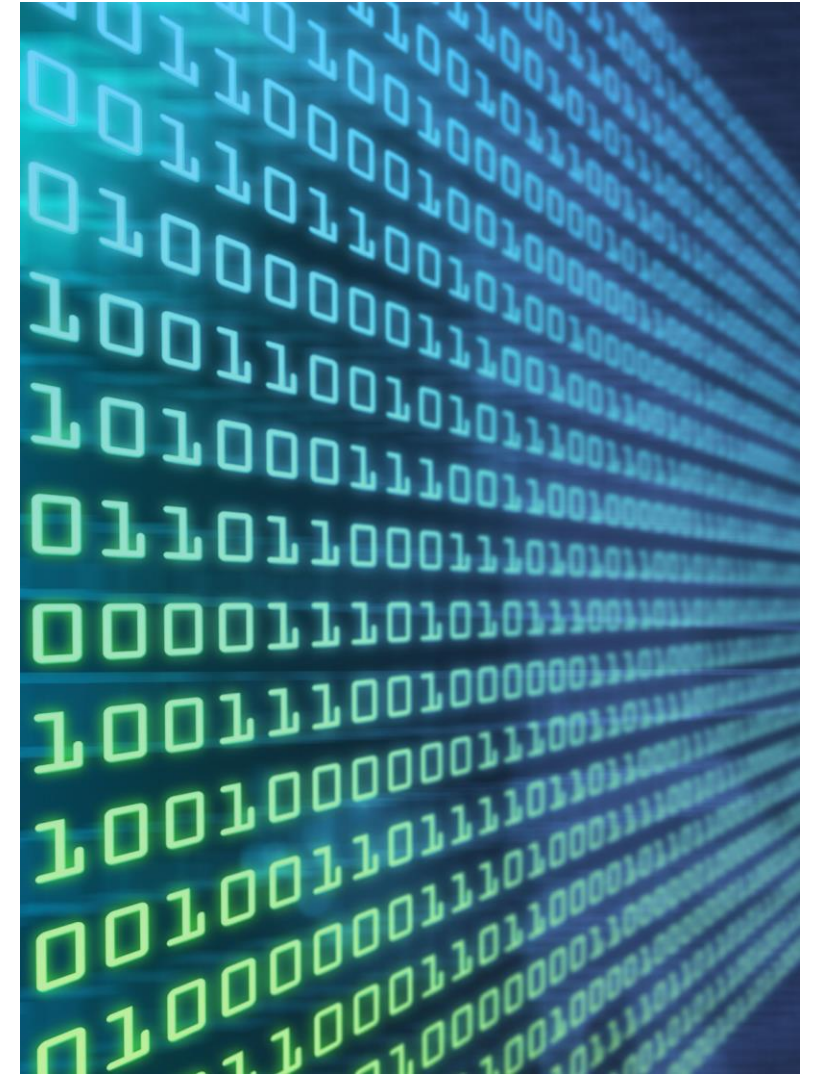
- documentação  
( <https://docs.liquibase.com/home.html> )



## Application Properties

- documentação

(<https://docs.spring.io/spring-boot/docs/current/reference/html/application-properties.html#appendix.application-properties>)

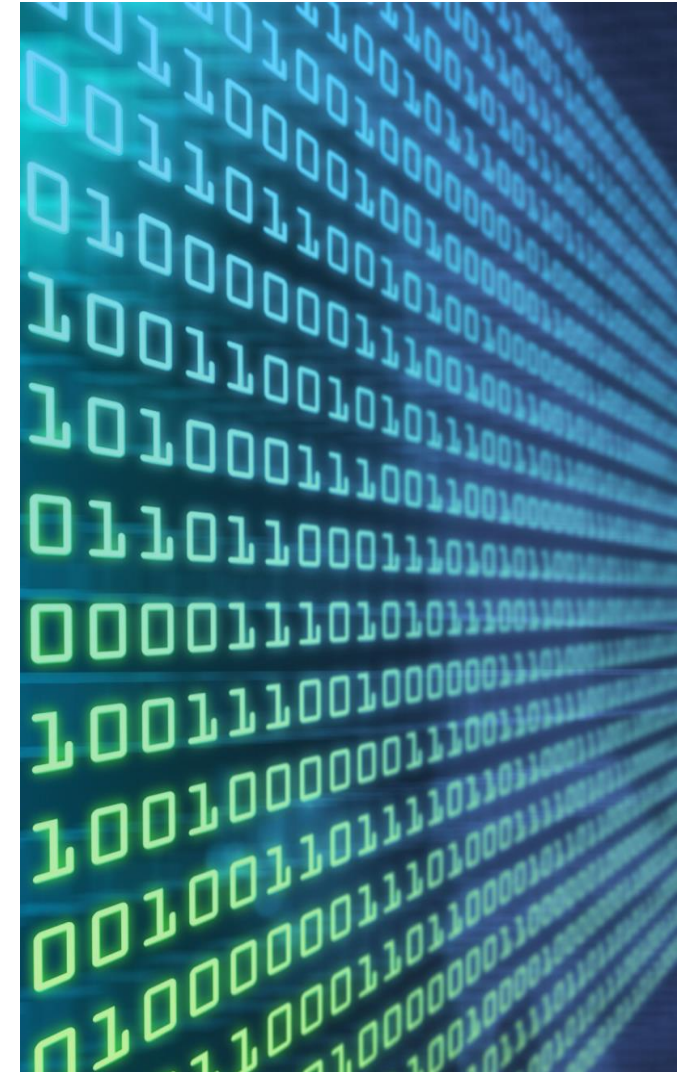


## Configuração application properties

```
spring.datasource.driverClassName=com.mysql.cj.jdbc.Driver  
spring.datasource.url=jdbc:mysql://127.0.0.1:3306/vendas  
spring.datasource.username=root  
spring.datasource.password=admin
```

```
spring.jpa.show-sql=true  
spring.jpa.properties.hibernate.format_sql=true  
spring.jpa.hibernate.ddl.auto=none
```

```
spring.liquibase.enabled=true  
spring.liquibase.drop-first=false  
spring.liquibase.change-log=classpath:db/master.xml
```

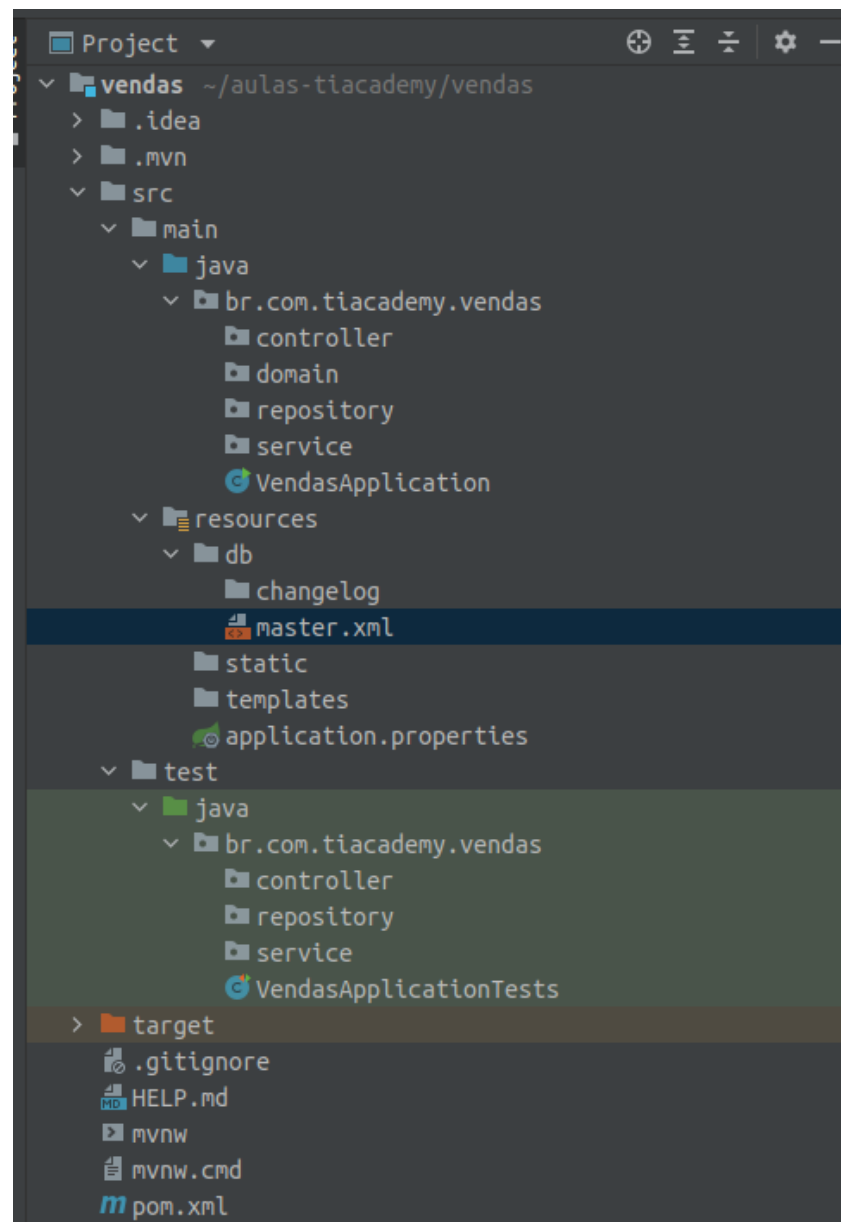


# Configuração master.xml

```
1 <?xml version="1.0" encoding="UTF-8"?>
2 <databaseChangeLog xmlns="http://www.liquibase.org/xml/ns/dbchangelog"
3   xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"
4   xsi:schemaLocation="http://www.liquibase.org/xml/ns/dbchangelog
5     http://www.liquibase.org/xml/ns/dbchangelog/dbchangelog-4.3.xsd">
6
7   <includeAll path="changelog" relativeToChangelogFile="true"/>
8 </databaseChangeLog>
9
```



# Estrutura de arquivos





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# XML

O que é?

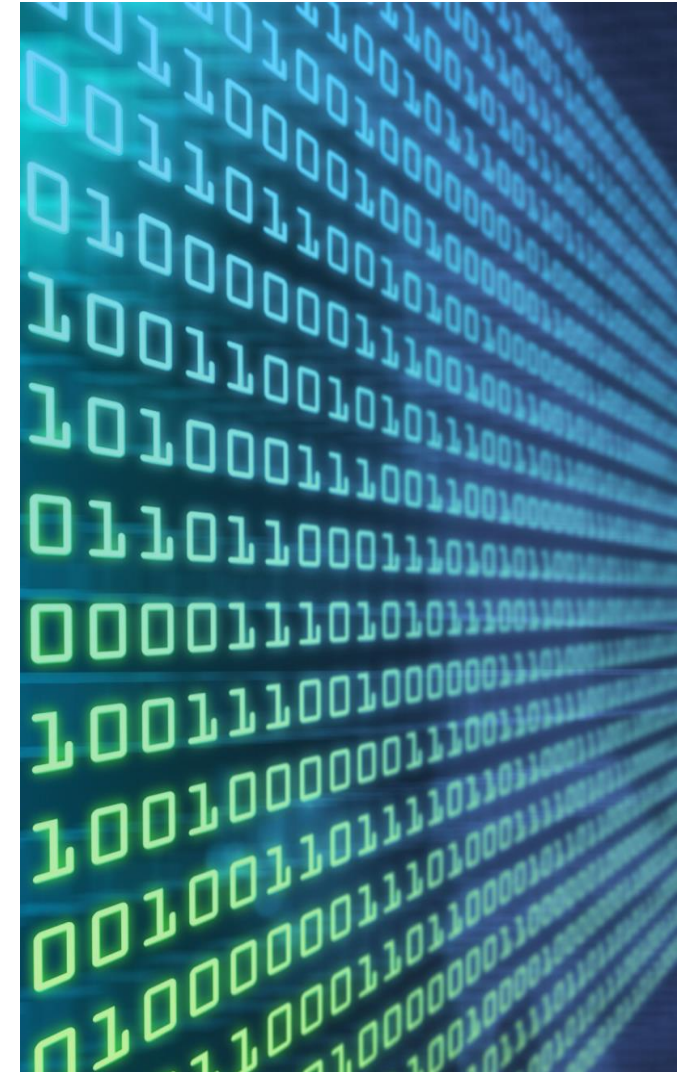
## XML - EXtensible Markup Language

- descrição bem precisa
- marcar documentos
- definir e criar seus próprios documentos
- sintaxe

`<tag atributos>conteúdo</tag>`

ou

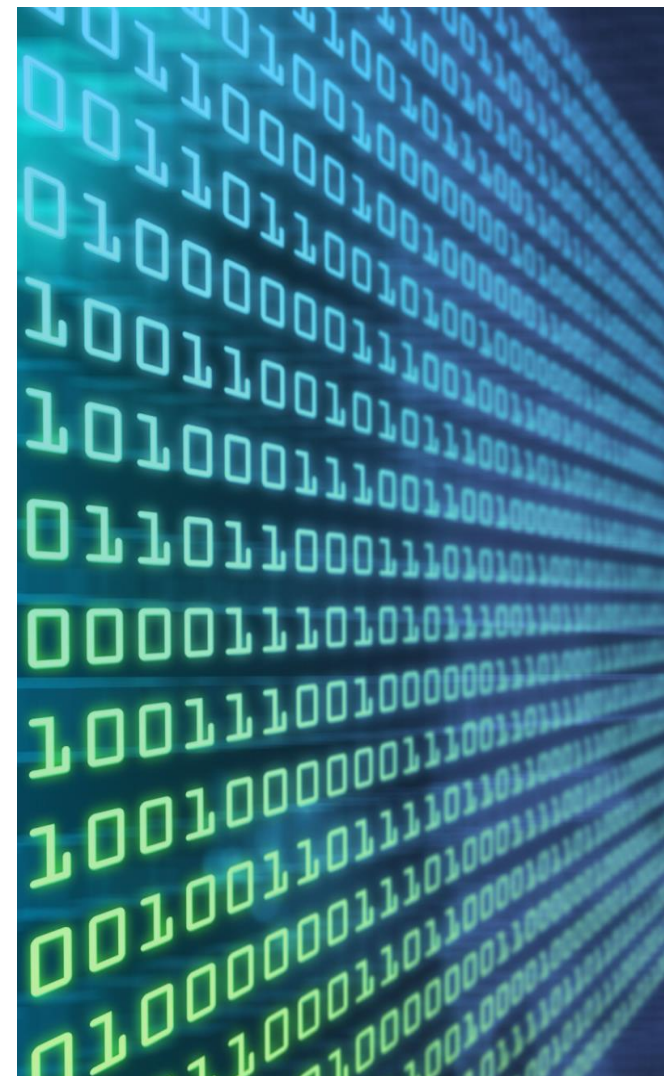
`<tag atributos/>`



## XML Schema (xsd)

O que o xsD pode definir?

- atributos que podem aparecer no XML
- quais são os elementos filhos
- ordem e o número de elementos
- tipos de dados aceitos
- valores default ou requeridos
- cardinalidade entre os elementos







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# Liquibase

Vamos praticar?

## Tags Liquibase

### <changeSet>

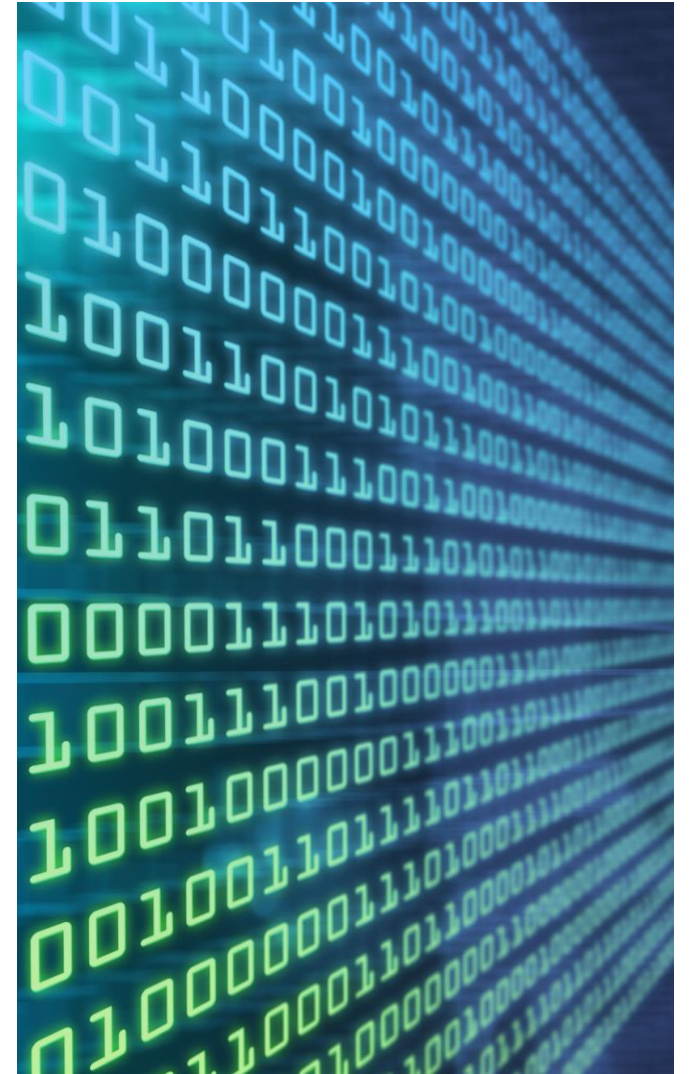
- Executa uma ação no banco

### <preConditions>

- Condição para executar a ação

### <createTable>

- Cria tabela

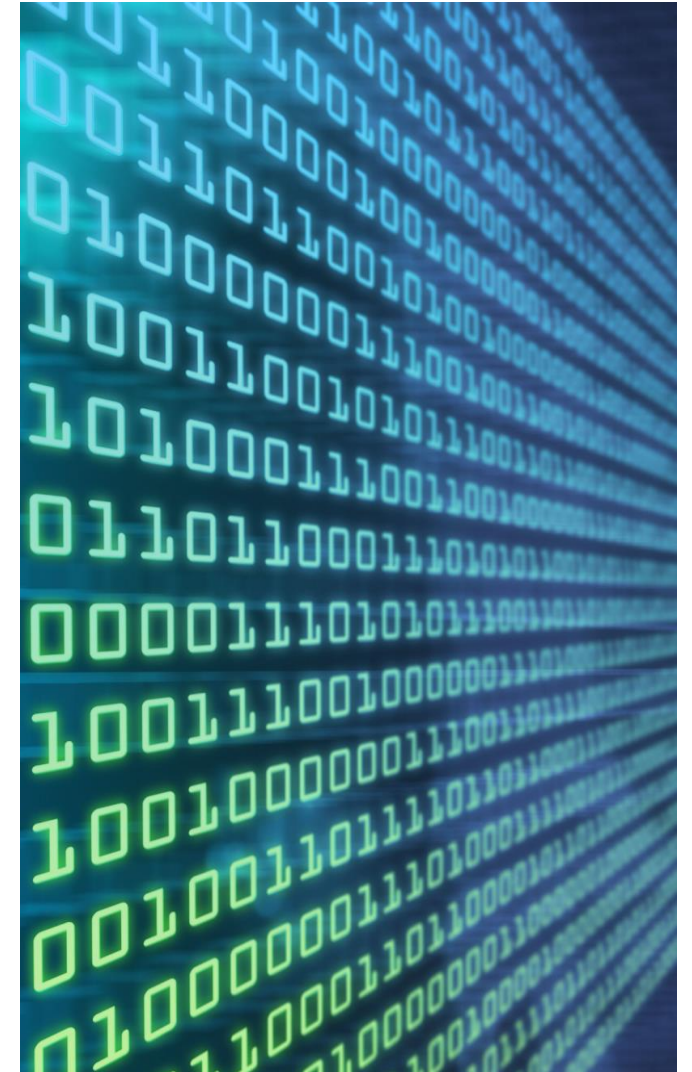


# XML Liquibase

```
<changeSet id="1" author="henrique">
  <preConditions onFail="MARK_RAN" onFailMessage="Ja existe a tabela VENDEDOR">
    <not>
      <tableExists tableName="VENDEDOR"/>
    </not>
  </preConditions>

  <createTable tableName="VENDEDOR">
    <column name="ID" type="INT">
      <constraints nullable="false" primaryKey="true" primaryKeyName="PK_VENDEDOR"/>
    </column>
    <column name="NOME" type="VARCHAR(255)">
      <constraints nullable="false"/>
    </column>
  </createTable>

</changeSet>
```





# Variáveis

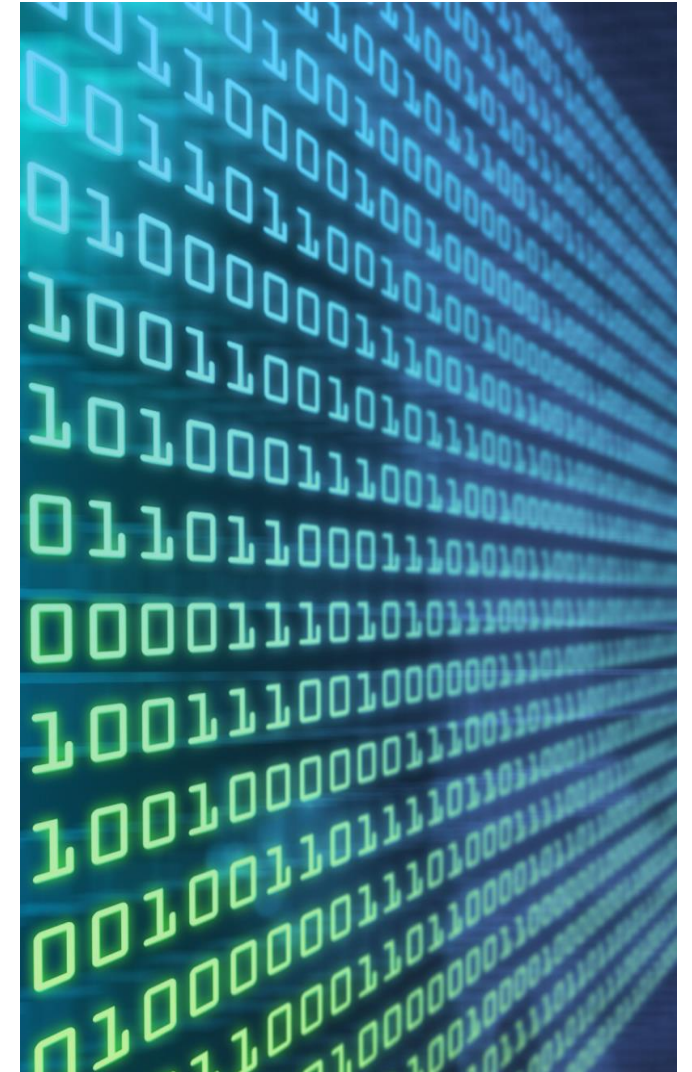
```
<?xml version="1.0" encoding="UTF-8"?>
```

```
<databaseChangeLog xmlns="http://www.liquibase.org/xml/ns/dbchangelog"  
  xmlns:xsi="http://www.w3.org/2001/XMLSchema-instance"  
  xsi:schemaLocation="http://www.liquibase.org/xml/ns/dbchangelog  
    http://www.liquibase.org/xml/ns/dbchangelog/dbchangelog-4.3.xsd">
```

```
  <property  
    value="java.sql.Types.NUMERIC(19,0)" name="numerico"  
    dbms="mysql,postgresql"/>
```

```
  <property  
    value="java.sql.Types.VARCHAR(255)" name="descricao"  
    dbms="mysql,postgresql"/>
```

```
  <includeAll path="changelog" relativeToChangelogFile="true"/>  
</databaseChangeLog>
```



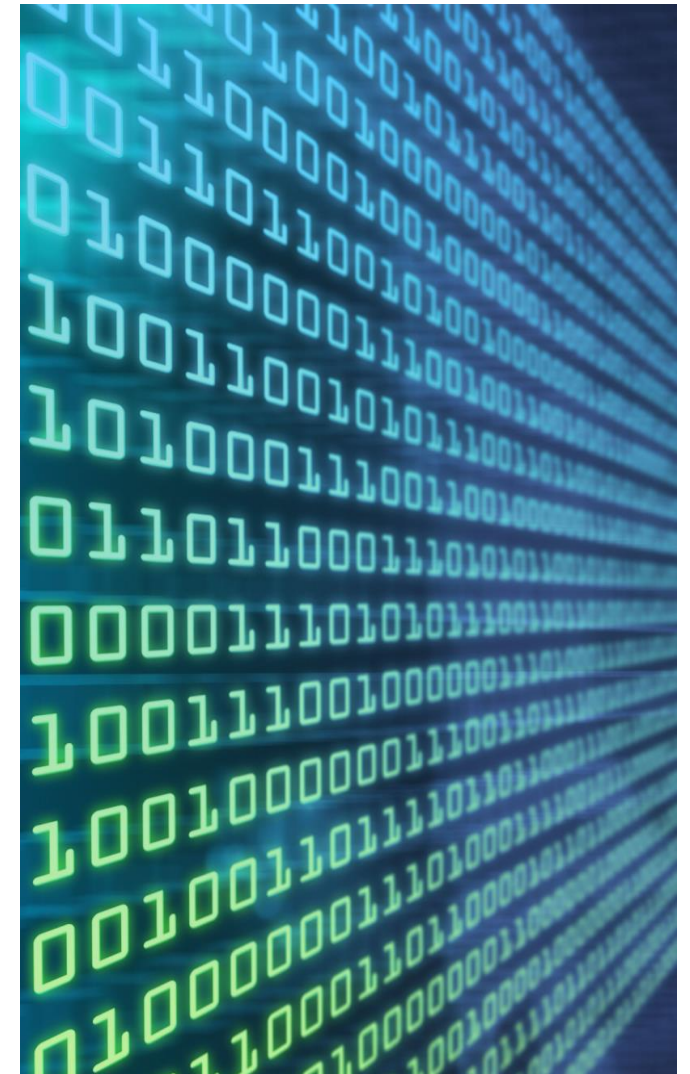


# Variáveis

```
<changeSet id="2" author="henrique">
  <preConditions onFail="MARK_RAN" onFailMessage="Ja existe a tabela CLIENTE">
    <not>
      <tableExists tableName="CLIENTE"/>
    </not>
  </preConditions>

  <createTable tableName="CLIENTE">
    <column name="ID" type="`${numerico}`">
      <constraints nullable="false" primaryKey="true" primaryKeyName="PK_CLIENTE"/>
    </column>
    <column name="NOME" type="`${descricao}`">
      <constraints nullable="false"/>
    </column>
  </createTable>

</changeSet>
```





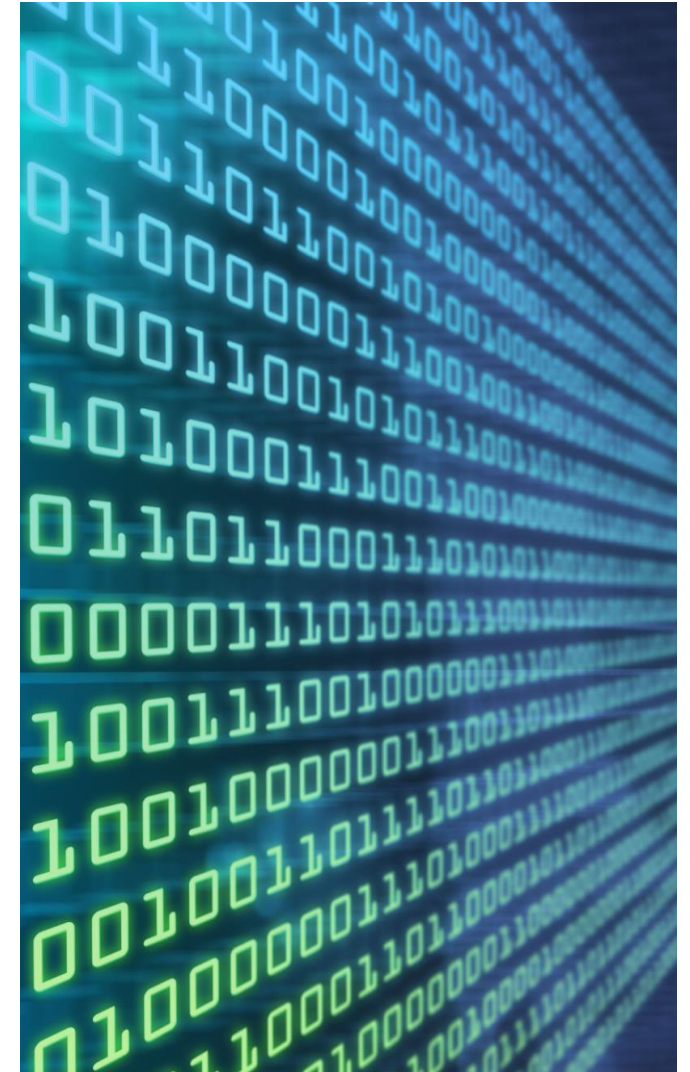
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## Revisão

O que aprendemos até aqui?

## Conteúdo

- Criação projeto SpringBoot
- Maven (Dependências)
- Configurações (DB e Liquibase)
- XML







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