Microservices

WARNING:

Eclipse -> Team -> Share project

**Create a access token:**

ghp\_R5P0I8Jm40jc6oXcXQJjtBf2vqvGAR0LN3Vh

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Description automatically generated

**STEP 1:**

Create the project in https://start.spring.io/

Build the dependencies

Maven Update

Configurate the URL and port in application.properties

spring.config.import=optional:configserver:http://localhost:8888

**STEP 2:**

Create a simple REST controller in specific service

Graphical user interface, text, application, email

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Graphical user interface, text, application

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**STEP 3:**

Use the values from configuration

Graphical user interface, application, Word

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Graphical user interface, text, application

Description automatically generated

Graphical user interface, text, application, email

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STEP 04:

Create a project **Spring Cloud Server** to centralizate all microservices

Dependencies:

* Config Client
* Spring Boot DevTools

Change **port** and **name application**

Graphical user interface, application, Word

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**Step 5:**

Create a folder **git-localconfig-repo**

Create a **limits-service.properties**

Graphical user interface, application

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Cmd

Git bash ´

**Comandos:**

* Git init
* Git add \*
* Git commit -m “Message”

**STEP 6:**

Connect Spring Cloud Server to Local Repository

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**STEP 7:**

Only connect

Be carefull -> First Run SpringCloud -> Run LimitService

**STEP 8:**

New environments

Create a **limits-service-dev.properties**

Create a **limits-service-qa.properties**

A screenshot of a computer

Description automatically generated with medium confidence

A screenshot of a computer program

Description automatically generated with low confidence

Activation the environment to dev

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If the previous activation doesn’t be enable, do this:

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**STEP 8:**Debbuging

**STEP 9:**

Currency Conversion Microservice

Currency Exchange Microservice

**STEP 10:**

Create **currency exchange service**  
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Description automatically generated with medium confidence

**STEP 11:**

Create a get mapping to get the values of currency exchange:

http://localhost:8000/currency-exchange/from/USD/to/INRA screenshot of a computer

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Description automatically generated with medium confidence

**STEP 12: Setting up Dynamic Port in the Response**

New instance of currency-exchange

Setup the environment

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Run Configuration -> Dupplicate the Run -> Change the name -> Arguments

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**STEP 13: Configure a JPA and Initialized Data**

Configure JPA:

Add dependencies

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Add the properties in application

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Add Anotations Currency Exchange

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Description automatically generated

Create a SQL to insert data on the table.

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**STEP 14: Create a JPA Repository**

Create a JPA Repository A screenshot of a computer

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Controller changes to repository

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**STEP 15: Setting up Currency Conversion Microservice**

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Create a project Currency Conversion Service

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Configuration

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**STEP 16: Creating a service for currency conversion**

Entity Currency ConversionA screenshot of a computer program

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Controller

A screenshot of a computer

Description automatically generated with medium confidence

**STEP 17: Invoking Currency Exchange from Currency Conversion Microservices**

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**STEP 18: Using feign REST Client for service invocation**

Add the dependency

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Add Anotions

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Create a Proxy

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Create a method in CurrencyConversionController with feign

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Description automatically generated´

**STEP 19: Understand Naming Server and Setting up Eureka Naming Server**

**Eureka Server:** Permite que as aplicações localizem e comuniquem entre si num ambiente de nuvem. Ele guarda os registo de cada instância localizar e comunicar entre si

Create a project for eureka client named “naming-server”

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Add anotion **@EnableEurekaServer**

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Configure Eureka Server  
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Description automatically generated with medium confidenceEureka Server Up  
A screenshot of a computer

Description automatically generated with medium confidence

**STEP 20: Connect Currency Conversion and Currency Exchange Microservices**