



Universidad Central del Ecuador
Facultad de Ingeniería y Ciencias Aplicadas
Sistemas de Información

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Examen

1. Cómo generar la unidad autocontenida (archivo JAR) para ejecutar la aplicación completa.

- a) Se debe verificar que la versión de gradle o gradlew sea la **7.3** ya que es compatible con Java 17
- b) Ejecutar el comando **./gradlew build**
- c) Luego se debe ejecutar **./gradlew libertyPackage**
- d) Repetir los 3 primeros pasos para cada una de las aplicaciones
- e) El archivo JAR se encontrará en la siguiente ruta:

Microservice Album: micro-service-album / build / libs / mp-album.jar

Microservice Singer: micro-service-singer / build / libs / mp-singer.jar

Microservice Client: jsf-client / build / libs / mp-client.jar

2. Cómo ejecutar los microservicios: 2 copias del microservicio1 y 3 copias del microservicio2

- Ejecutar 2 copias del microservicio1

java -jar mp-singer.jar --port=9070

```
> java -jar mp-singer.jar --port=9070
```

java -jar mp-singer.jar --port=9071

```
> java -jar mp-singer.jar --port=9071
```

- Ejecutar 3 copias del microservicio2

java -jar mp-album.jar --port=9060

```
> java -jar mp-album.jar --port=9060
```

java -jar mp-album.jar --port=9061

```
> java -jar mp-album.jar --port=9061
```

java -jar mp-album.jar --port=9062

```
> java -jar mp-album.jar --port=9062
```

Nota: Antes de la palabra **port** van 2 guiones medios seguidos

3. Configuración del Gateway

Archivo traefik.yml

```
entryPoints:
  web:
    address: ":9090"
providers:
  file:
    filename: "traefik-microservice.yml"
    watch: true
  consulCatalog:
    endpoint:
      address: 127.0.0.1:8500
api:
  insecure: true
  dashboard: true
```

```
entryPoints:
  web:
    address: ":9090"
providers:
  file:
    filename: "traefik-microservice.yml"
    watch: true
  consulCatalog:
    endpoint:
      address: 127.0.0.1:8500
api:
  insecure: true
  dashboard: true
```

Archivo traefik-microservice.yml

```
http:
  routers:
    router0:
      entryPoints:
        - web
      service: mp-singer
      rule: Path(`/microsrv-singer`)
    router1:
      entryPoints:
        - web
      service: mp-album
      rule: Path(`/microsrv-album`)
  services:
    mp-album:
      loadBalancer:
        servers:
          - url: 'http://localhost:9070/'
          - url: 'http://localhost:9071/'
    mp-singer:
      loadBalancer:
        servers:
          - url: 'http://localhost:9060/'
          - url: 'http://localhost:9061/'
          - url: 'http://localhost:9062/'
```

```
http:
  routers:
    router0:
      entryPoints:
        - web
      service: mp-singer
      rule: Path(`/microsrv-singer`)
    router1:
      entryPoints:
        - web
      service: mp-album
      rule: Path(`/microsrv-album`)
  services:
    mp-album:
      loadBalancer:
        servers:
          - url: 'http://localhost:9070/'
          - url: 'http://localhost:9071/'
    mp-singer:
      loadBalancer:
        servers:
          - url: 'http://localhost:9060/'
          - url: 'http://localhost:9061/'
          - url: 'http://localhost:9062/'
```

Ejecución

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localhost:8500/ui/dc1/services

dc1

Overview

Services

Nodes

Key/Value

Intentions

ACCESS CONTROLS

Tokens

Policies

Roles

Auth Methods

Services 3 total

Search Search Across Health Status Service Type

- consul 1 instance
- mp-singer 2 instances
- mp-album 3 instances

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localhost:8080/dashboard/#/http/routers

traefik 2.8.3 Dashboard HTTP TCP UDP Plugins Go to Hub Dashboard Dark theme

HTTP Routers 7 HTTP Services 8 HTTP Middlewares 2

All Status Success Warnings Errors

Search

Status	TLS	Rule	Entrypoints	Name	Service	Provider
Success		PathPrefix(`/api`)	traefik	api@internal	api@internal	Traefik
Success		Host(`consul`)	web	consul@consulcatalog	consul	Consul
Success		PathPrefix(`/`)	traefik	dashboard@internal	dashboard@internal	Traefik
Success		Host(`mp-album`)	web	mp-album@consulcatalog	mp-album	Consul
Success		Host(`mp-singer`)	web	mp-singer@consulcatalog	mp-singer	Consul
Success		Path(`/microsrv-singer`)	web	router0@file	mp-singer	File
Success		Path(`/microsrv-album`)	web	router1@file	mp-album	File

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localhost:8080/dashboard/#/http/services/mp-singer@file

traefik 2.8.3

Dashboard

HTTP

TCP

UDP

Plugins

Go to Hub Dashboard →

HTTP Routers 7 HTTP Services 8 HTTP Middlewares 2

mp-singer@file

Service Details

TYPE

loadbalancer

PROVIDER

File

STATUS

Success

PASS HOST HEADER

True

Servers

Status	URL
✓	http://localhost:9060/
✓	http://localhost:9061/
✓	http://localhost:9062/

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Services - Consul

localhost:8080/dashboard/#/http/services/mp-album@file

traefik 2.8.3

Dashboard

HTTP

TCP

UDP

Plugins

Go to H

HTTP Routers 7 HTTP Services 8 HTTP Middlewares 2

mp-album@file

Service Details

TYPE

loadbalancer

PROVIDER

File

STATUS

Success

PASS HOST HEADER

True

Servers

Status	URL
✓	http://localhost:9070/
✓	http://localhost:9071/