EXAMEN DE PRUEBAS DE HABILIDADES TÉCNICAS PARA PROCESO DE RECLUTAMIENTO EN GFT

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El código del proyecto desarrollado para el examen que me solicitaron, se encuentra en mi repositorio de **GitHub**: https://github.com/sebrodval/examenGFTSebastianRodarteValle

COMPONENTES:

o gftbank-config

Contiene la configuración centralizada de cada uno de los componentes mediante **Spring Cloud Config**.

o gftbank-eureka

Componente de Netflix Eureka donde se registran los microservicios

o gftbank

Contiene los servicios REST para el CRUD de los clientes/cuentas con persistencia JPA y H2.

gftbak-feign

Microservicio que funciona como cliente del componente **"gftbank"** donde consume sus servicios **REST** mediante **feign**

Este componente contiene la exposición del API mediante Swagger.

o gftbak-zuul

Componente que funciona como gateway para el acceso a los servicios mediante **Netflix Zuul**

> ARCHIVOS DE CONFIGURACIÓN EXTERNOS

Los siguientes archivos de configuración se encuentran localizados en el directorio /config-data/ el cual está ubicado en el directorio raiz del repositorio en Git Hub

gftbank-eureka.yml

```
server:
   port: 8082

eureka:
   instance:
     hostname: localhost
   client:
     registerWithEureka: false
     fetchRegistry: false
     serviceUrl:
        defaultZone: http://${eureka.instance.hostname}:${server.port}/eureka/
```

gftbank.yml

```
#Application Configuration
server:
  port: 8083
spring:
  h2:
   console:
     enabled: true
  datasource:
   url: jdbc:h2:mem:gftbankDB;DB CLOSE DELAY=-1;DB CLOSE ON EXIT=FALSE
   driverClassName: org.h2.Driver
   platform: h2
   username: sa
   password:
  # -----
  # JPA / HIBERNATE
  jpa:
    show-sql: true
   hibernate:
     ddl-auto: update
    database-platform: org.hibernate.dialect.H2Dialect
    properties:
     hibernate:
       show_sql: true
       use_sql_comments: false
       format_sql: false
logging:
  pattern:
   console: "%d{yyyy-MM-dd HH:mm:ss} ${LOG LEVEL PATTERN:-%5p} %m%n"
eureka:
   client:
      serviceUrl:
        defaultZone: http://localhost:8082/eureka/
```

gftbank-feign.yml

```
#Application Configuration

server:
    port: 8084

logging:
    pattern:
        console: "%d{yyyy-MM-dd HH:mm:ss} ${LOG_LEVEL_PATTERN:-%5p} %m%n"

eureka:
    client:
        serviceUrl:
        defaultZone: http://localhost:8082/eureka/
```

gftbank-zuul.yml

```
#Application Configuration

server:
    port: 8080

Beureka:
    client:
        serviceUrl:
              defaultZone: http://localhost:8082/eureka/

Bzuul:
    routes:
    gftbank:
    path: /gftbank/**
    url: http://localhost:8084/gftbank/
```

> Componente gftbank-config:

o Archivo de configuración **bootstrap.yml** ubicado dentro de **resources**:

Compilación con GRADLE:

```
➤ Windows PowerShell

PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\
gftbank-config> ./gradlew clean

BUILD SUCCESSFUL in 1s
1 actionable task: 1 executed
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\
gftbank-config> ./gradlew build
> Task :test
2020-05-31 15:35:55.328 INFO 24280 --- [extShutdownHook] o.s.s.con
current.ThreadPoolTaskExecutor : Shutting down ExecutorService 'ap
plicationTaskExecutor'

BUILD SUCCESSFUL in 16s
5 actionable tasks: 5 executed
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\
gftbank-config>
```

o Ejecución de SpringBoot:

```
package com.gft.bank.config;

import org.springframework.boot.SpringApplication;
@EnableConfigServer
@SpringBootApplication
public class GftbankConfigApplication {
    public static void main(String[] args) {
        SpringApplication.run(GftbankConfigApplication.class, args);
    }
}
```

> Componente gftbank-eureka:

Archivo de configuración bootstrap.yml ubicado dentro de resources:

```
spring:
    application:
        name: gftbank-eureka
    cloud:
        config:
        uri: http://localhost:8081
        username: root
        password: pass
```

Compilación con GRADLE:

```
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\
gftbank-eureka> ./gradlew clean
Starting a Gradle Daemon, 1 busy Daemon could not be reused, use --
status for details

**BUILD SUCCESSFUL** in 6s
1 actionable task: 1 executed
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\
gftbank-eureka> ./gradlew build
> Task :test
WaRNING: An illegal reflective access operation has occurred
WARNING: Illegal reflective access by com. thoughtworks.xstream.core
.util.Fields (file:/c:/Users/sebro/.gradle/caches/modules-2/files-2
.1/com.thoughtworks.xstream/setream/1.4.11.1.jar) to field java.util.TreeMap
.comparator
WARNING: Please consider reporting this to the maintainers of com.t
houghtworks.xstream.core.util.Fields
WARNING: Use --illegal-access=warn to enable warnings of further il
legal reflective access operations
WARNING: All illegal access operations will be denied in a future r
elease
2020-05-31 15:54:03.288 INFO 23428 --- [extShutdownHook] o.s.c.n.e
.s.EurekaServiceRegistry : Unregistering application GFTBANK
-EUREKA with eureka with status DOWN
2020-05-31 15:54:03.395 INFO 23428 --- [extShutdownHook] c.n.eurek
a.DefaultEurekaServerContext : Shutting down ...
2020-05-31 15:54:03.381 INFO 23428 --- [extShutdownHook] c.n.eurek
a.DefaultEurekaServerContext : Shutting down ...
2020-05-31 15:54:03.383 INFO 23428 --- [extShutdownHook] c.s.con
current.ThreadPoolTaskExecutor : Shutting down ExecutorService 'ap
plicationTaskExecutor : Shutting down ExecutorService 'ap
plicationTaskExecutor : Shutting down ExecutorService 'ap
plicationTaskExecutor : Shutting down DiscoveryClient ...
2020-05-31 15:54:03.383 INFO 23428 --- [extShutdownHook] com.netfl
ix.discovery.DiscoveryClient : Shutting down DiscoveryClient ...
2020-05-31 15:54:03.383 INFO 23428 --- [extShutdownHook] com.netfl
ix.discovery.DiscoveryClient : Shutting down DiscoveryClient ...
2020-05-31 15:54:03.383 INFO 23428 --- [extShutdownHook] com.netfl
ix.discovery.DiscoveryClient : Completed shut down of DiscoveryC
lient
```

Ejecución de SpringBoot:

```
package com.gft.bank.eureka;
import org.springframework.boot.SpringApplication;
@EnableEurekaServer
@SpringBootApplication
public class GftbankEurekaApplication {
    public static void main(String[] args) {
        SpringApplication.run(GftbankEurekaApplication.class, args);
    }
}
```

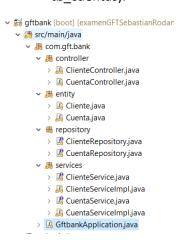
```
.ConfigServicePropertySourceLocator : Fetching config from server at : http://localhost:8081  
.ConfigServicePropertySourceLocator : Located environment: name=gftbank-eureka, profiles=[def. state=mil]  
ropertySourceBootStrapPconfiguration : Located property source: [BootstrapPropertySource | fame="bootstrapProperties-https://github.com/sebrodwal/examenGTsebastiankodartewalle.git/config
                                                                                                                                                                                                                                      : No active profile set, falling back to default profiles
                                                                                                                                                                                                                                       : Endpoint ID 'service-registry' contains invalid charact
                                                                                                                                                                                                                                          ReanFactory id=20026cfd-acc-3f90-80)f-a0beba7e94f7
roscat initialized with port(s): 8032 (http)
starting service [roscat]
starting service [roscat]
starting service engine: [Apache Toscat/9-0.35]
Initializing Spring embedded Webapplicationcontext
Rosc WebApplicationcontext: initialization completed in
                                                                                                                                                                                                                                           No URLs will be polled as dynamic configuration sources
To enable URLs as dynamic configuration sources, define
                                                                                                                    main] c.n.d.provider.DiscoveryJerseyProvider
main] c.n.d.provider.DiscoveryJerseyProvider
                                                                                                                                                                                                                                     : Using JSON encoding codec LegacyJacksonJson
: Using JSON decoding codec LegacyJacksonJson
                                                                                                                           uured
vstream.core.util.Fields (file:/C:/Users/sebro/.gradle/caches/modules-2/files-2.1/com.thou
id3#fd2/stream-1.4.11.1.jar) to field java.util.TreeMap.comparator
eres of com.thoughtworks.xstream.core.util.Fields
of further illegal reflective access operations
                                                                                                                                                                                                                                          asspath.
Initializing ExecutorService 'applicationTaskExecutor'
You already have RibbonLoadBalancerCitent on your classy
reter-entfils; been from your project.
In order to use
free-netfils; been from your project.
Setting initial instance status as: STARTING
Initializing Eureka in region us-east-
Citent configured to neither register nor query for data
Olscovery Citent initializing dat timestamp 190938350092:
                                                                                                                   main] c.n.eureka.DefaultEurekaServerContext
main] c.n.eureka.cluster.PeerEurekaNodes
                                                                                                                                                                                                                                           Initializing ...
The replica size seems to be empty. Check the route 53 D
              15:56:30.171 INFO 25196 ---
gions: []
15:56:30.172 INFO 25196 ---
15:56:30.183 INFO 25196 ---
15:56:30.214 INFO 25196 ---
                                                                                                                                                                                                                                     : Finished initializing remote region registries. All k
                                                                                                                                                                                                                                          Initialized
Exposing 2 endpoint(s) beneath base path '/actuator'
Registering application GFTBANK-EUREKA with eureka with
              15:56:30.216 INFO 25196 ---
15:56:30.217 INFO 25196 ---
                                                                                                    Thread-383] o.s.c.n.e.server.EurekaServerBootstrap
Thread-383] o.s.c.n.e.server.EurekaServerBootstrap
                                                                                                                                                                                                                                       : Setting the eureka configuration..
: Eureka data center value eureka.datacenter is not set,
                         ault
6:30.217 INFO 25196 ---
                                                                                                                                                                                                                                           Eureka environment value eureka.environment is not set
isams returned false
Initialized server context
Got 1 instances from neighboring DS node
Renew threshold is: 1
Changing status to UP
Started Eureka Server
Tomcat Started on port(s): 8082 (http) with context path
                                                                                                                   main] .s.c.n.e.s.EurekaAutoServiceRegistration : Updating port to 8082
main] c.g.b.eureka.GftbankEurekaApplication : Started GftbankEurekaApplication in
```

> Componente gftbank:

Archivo de configuración bootstrap.yml ubicado dentro de resources:

```
spring:
    application:
        name: gftbank
    cloud:
        config:
        uri: http://localhost:8081
        username: root
        password: pass
```

 Estructura de clases Java (Controladores con servicios REST, Servicios con sus respectivas interfaces y Persistencia con sus mapeos a las tablas tb_clientes y tb_cuentas):



Compilación con GRADLE:

```
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\gftbank> ./gradlew clean
Starting a Gradle Daemon, 2 busy Daemons could not be reused, use --
status for details

BUTLD SUCCESSFUL in 6s
1 actionable task: 1 executed
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\gftbank> ./gradlew build
> Task :test
WARNING: An illegal reflective access operation has occurred
WARNING: Alliqual reflective access by com. thoughtworks.xstream.core
.util.Fields (file:/C:/Users/sebro/.gradle/caches/modules-2/files-2
.1/com.thoughtworks.xstream/xstream/1.4.11.1/6c120c45a8c480bb2fes56502e3993ddd74fd2/xstream-1.4.11.1.jar) to field java.util.TreeMap
.comparator
WARNING: Please consider reporting this to the maintainers of com.t
houghtworks.xstream.core.util.Fields
WARNING: Se --illegal-access=warn to enable warnings of further il
legal reflective access operations
WARNING: All illegal access operations
WARNING: All illegal access operations
WARNING: All illegal access operations will be denied in a future r
elease
2020-05-31 16:00:56 - WARN Saw local status change event StatusChan
geEvent [timestamp=159058856993, current=DDWN, previous=UP]
2020-05-31 16:00:56 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083: registering service.
2020-05-31 16:00:57 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - registration status: 204
2020-05-31 16:00:57 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - registration status: 204
2020-05-31 16:00:57 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - registration status: 204
2020-05-31 16:00:57 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - registration status: 204
2020-05-31 16:00:57 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - deregistration status: 204
2020-05-31 16:00:57 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - deregister status: 200
2020-05-31 16:00:00 - INFO DiscoveryClient_GFTBANK/host.docker.inte
rnal:gftbank:8083 - d
```

Ejecución de SpringBoot:

```
package com.gft.bank;

import org.springframework.boot.SpringApplication;
@SpringBootApplication
@EnableEurekaClient
public class GftbankApplication {

   public static void main(String[] args) {
        SpringApplication.run(GftbankApplication.class, args);
   }
}
```

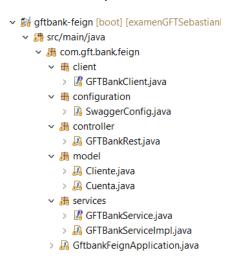
```
Is pring Boot : (C.7.) SELECTION | Selection | Service |
```

> Componente gftbank-feign:

o Archivo de configuración **bootstrap.yml** ubicado dentro de **resources**:

```
spring:
    application:
        name: gftbank-feign
    cloud:
        config:
        uri: http://localhost:8081
        username: root
        password: pass
```

 Estructura de clases Java (Cliente de microservicio gftbank mediante feign, configuración de swagger, controlador para exponer API, capas de modelo y servicios):



Compilación con GRADLE:

Ejecución de SpringBoot:

```
package com.gft.bank.feign;
import org.springframework.boot.SpringApplication;
@SpringBootApplication
@EnableEurekaClient
@EnableFeignClients
public class GftbankFeignApplication {
    public static void main(String[] args) {
        SpringApplication.run(GftbankFeignApplication.class, args);
    }
}
```

```
Sporing Boot : (27.3.0.RELEASE)

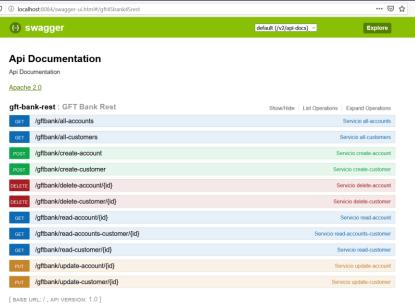
Sporing Boot : (27.3.0.RELEASE)

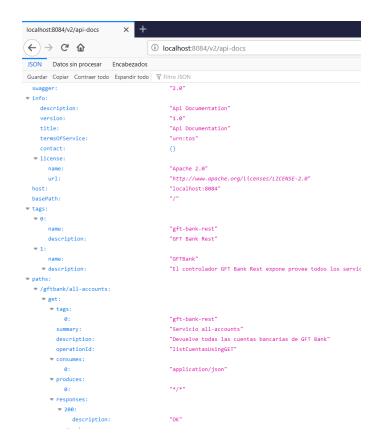
Bain | C.C.ConfigServicePropertySourceLocator : Fetching config from server at : http://localhosts8681

SSO-05-11 16-2100-191 | Mono 17068 | Mono 17068 | Mono 17068 | Mono 1706 | M
```

Swagger:

```
package com.gft.bank.feign.configuration;
import org.springframework.context.annotation.Bean;
@Configuration
@Configurati
```





> Componente gftbank-zuul:

o Archivo de configuración **bootstrap.yml** ubicado dentro de **resources**:

```
spring:
    application:
        name: gftbank-zuul
    cloud:
        config:
        uri: http://localhost:8081
        username: root
        password: pass
```

Compilación con GRADLE:

```
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodartevalle\gftbank-zuul> ./gradlew clean starting a gradle Daemon, 4 busy Daemons could not be reused, use --status for details

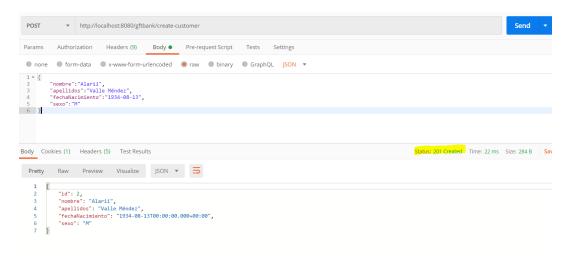
BUILD SUCCESSPUL in 6s
1 actionable task: 1 executed
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteValle\gftbank-zuul> ./gradlew build
PS C:\Users\sebro\repositorioGitSRV\examenGFTSebastianRodarteV
```

o Ejecución de SpringBoot:

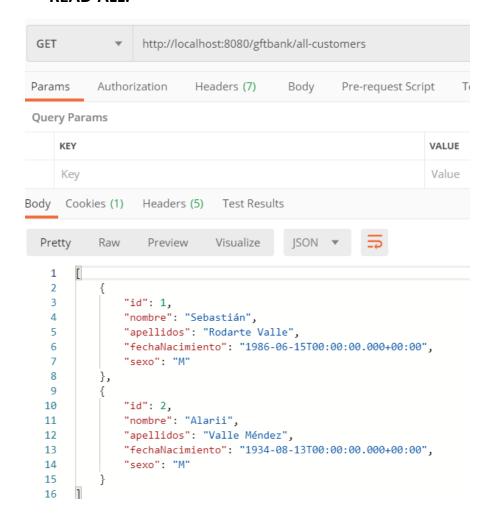
> PRUEBAS

CLIENTES:

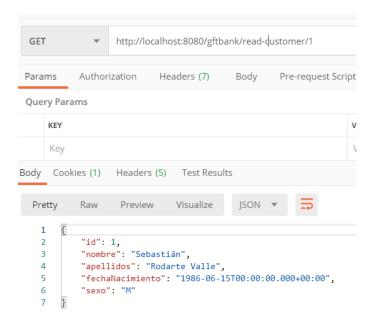
CREATE:



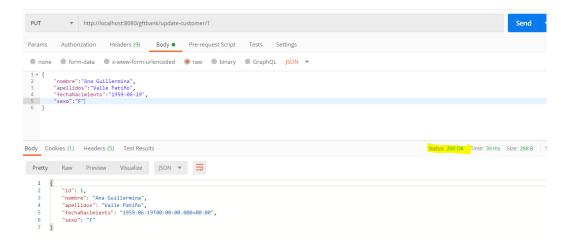
READ-ALL:



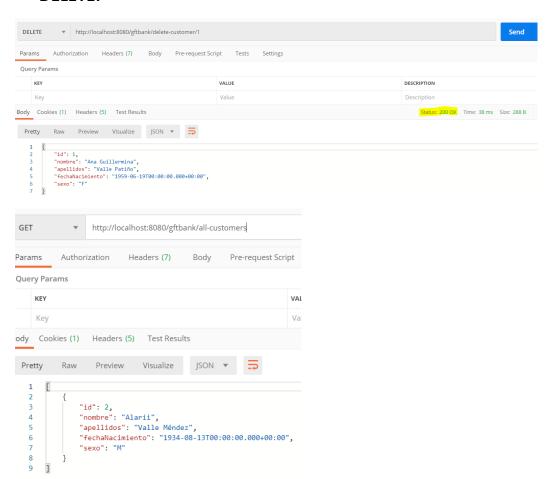
READ-ONE:



UPDATE:

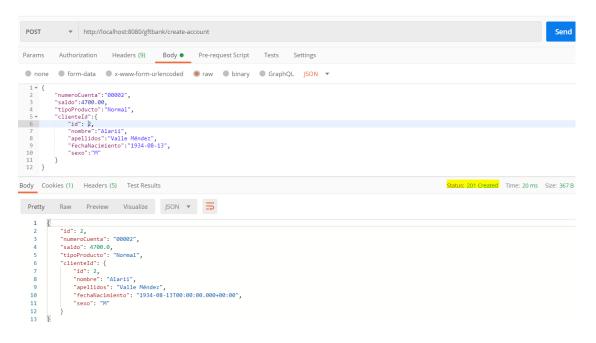


DELETE:

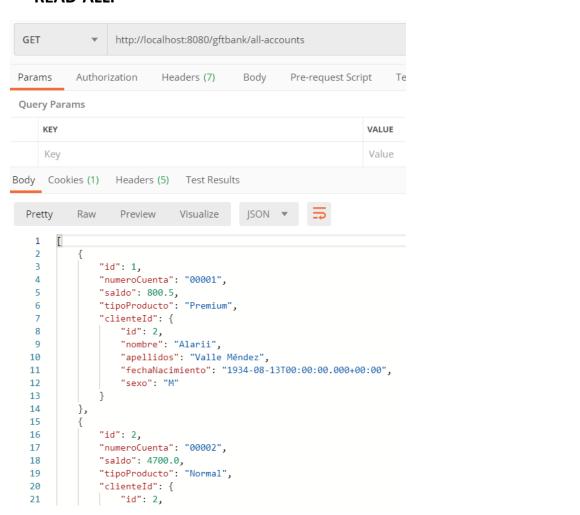


O CUENTAS:

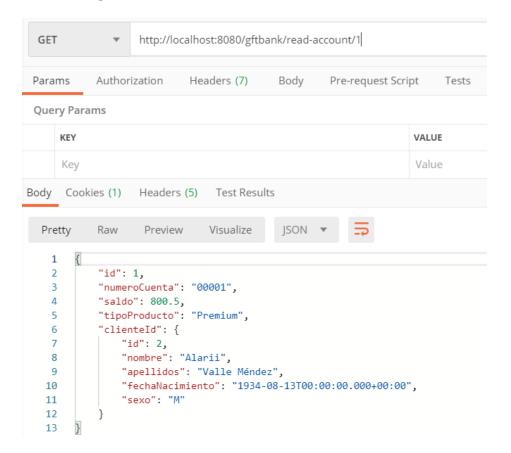
CREATE:



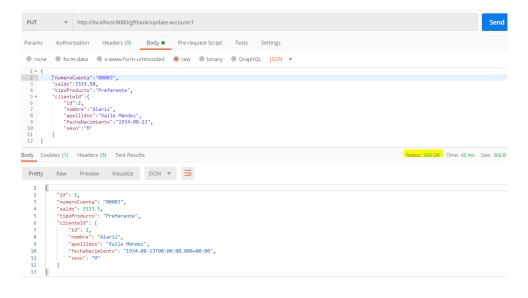
READ-ALL:



READ-ONE:



UPDATE:



DELETE:

