

Ingeniería de Software II



Taller Arquitectura Cliente-Servidor: Sockets, WebServer y API Rest

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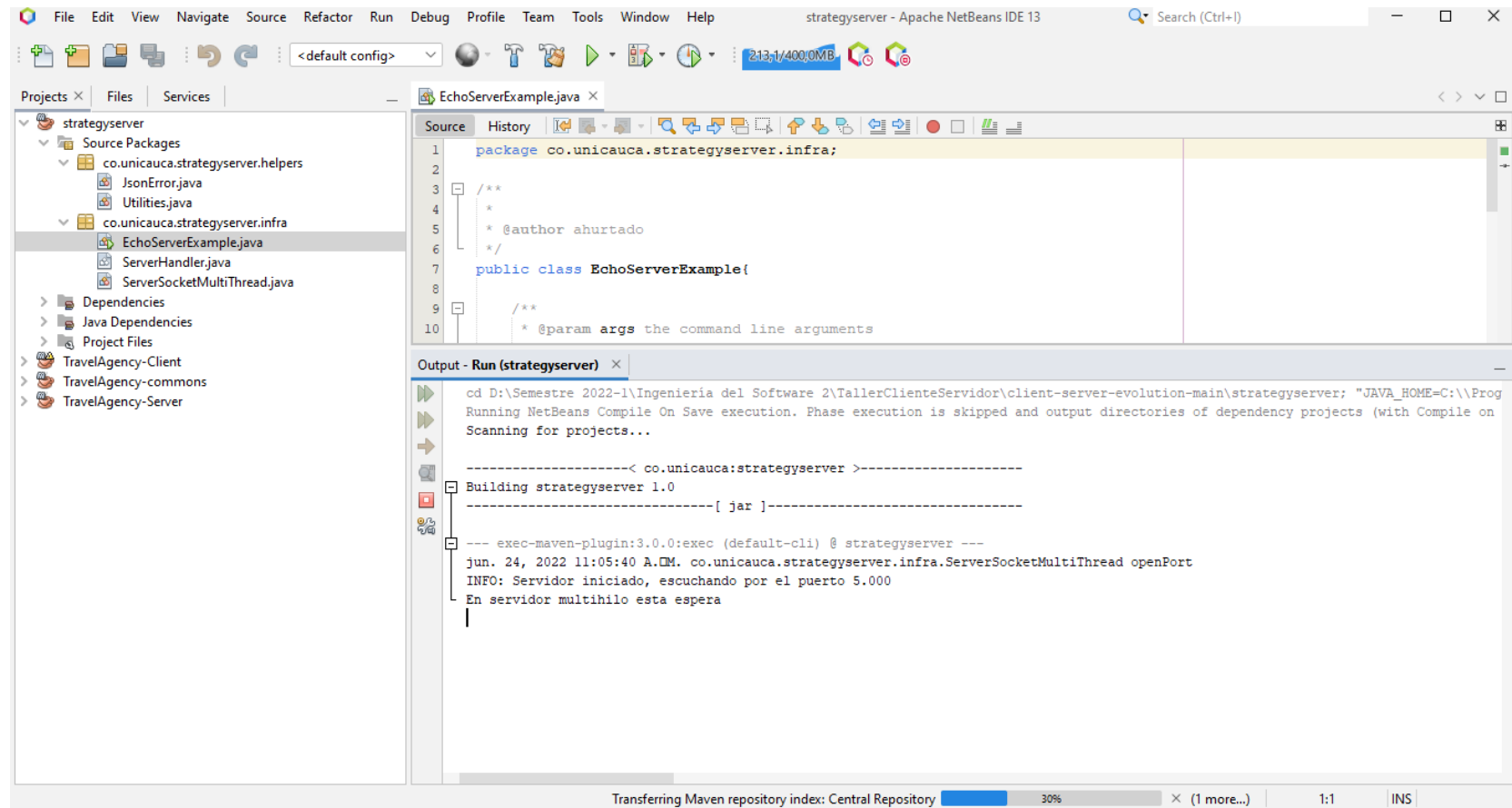
Facultad de Ingeniería Electrónica y Telecomunicaciones

Departamento de Sistemas

Ingeniería de Sistemas

Popayán, 24 de junio de 2022

1. Descargar, instalar y correr la clase EchoServerExample que viene en el proyecto strategyserver.



2. Descargar, instalar y correr el AgencyTravelServer como servidor tcp/ip y el AgencyTravelClient (infra.tcpip).



```
Output ×
Run (TravelAgencyServer) × Run (TravelAgency-Client) ×
cd D:\Semestre 2022-1\Ingeniería del Software 2\TallerClienteServidor\client-server-evolution-main\TravelAgency-Server; "JAVA_HOME=(
Running NetBeans Compile On Save execution. Phase execution is skipped and output directories of dependency projects (with Compile
Scanning for projects...

-----< co.unicauca.agencia.servidor:TravelAgency-Server >-----
Building TravelAgency-Server 1.0-SNAPSHOT
-----[ jar ]-----

--- exec-maven-plugin:3.0.0:exec (default-cli) @ TravelAgency-Server ---
Ingrese el puerto de escucha
5000
jun. 25, 2022 1:46:43 A.M. co.unicauca.strategyserver.infra.ServerSocketMultiThread openPort
INFO: Servidor iniciado, escuchando por el puerto 5.000
En servidor multihilo esta espera
|
```

TravelAgency-Client - Apache NetBeans IDE 13

File Edit View Navigate Source Refactor Run Debug Profile Team Tools Window Help

Search (Ctrl+I)

Projects Files Services

strategyserver

TravelAgency-Client

- Source Packages
 - co.unicauca.travelagency.client.access
 - co.unicauca.travelagency.client.domain
 - co.unicauca.travelagency.client.domain.services
 - co.unicauca.travelagency.client.infra
 - Messages.java
 - Security.java
 - TravelAgencySocket.java
 - co.unicauca.travelagency.client.presentation
 - resources
- Dependencies
- Java Dependencies
- Project Files

TravelAgency-commons

TravelAgency-Server

- Source Packages
 - co.unicauca.travelagency.server.access
 - co.unicauca.travelagency.server.app
 - co.unicauca.travelagency.server.domain.services
 - co.unicauca.travelagency.server.infra.tcpip
 - TravelAgencyHandler.java
 - TravelAgencyServer.java
 - co.unicauca.travelagency.server.infra.web
- Test Packages
- Dependencies
- Test Dependencies
- Java Dependencies
- Project Files

TravelAgencyServer.java

```
1 2
2  /* To change this license header, choose License Headers in Project Properties.
3  * To change this template file, choose Tools | Templates
4  * and open the template in the editor.
5  */
6  package co.unicauca.travelagency.server.infra.tcpip;
7
8  import co.unicauca.strategyserver.infra.ServerSocketMultiThread;
9  import co.unicauca.travelagency.server.access.CustomerRepositoryImplArrays;
10 import co.unicauca.travelagency.server.access.CustomerService;
```

Output - Run (TravelAgency-Client)

cd D:\Semestre 2022\...
Running NetBeans Co...
Scanning for projec...
-----< co...
Building TravelAgen...
----- [jar] -----
--- exec-maven-plugin:1.5.0:exec (default-cli) @ TravelAgency-Client ---

Agencia de Viajes Demo

Usuario: Invitado

Contraseña: *****

Aceptar Cerrar

Unpacking index for Central Repository (2 more...) 1:1 INS



Consulta de Clientes

Este ejercicio aplica el patrón cliente/servidor.
La aplicación cliente se conecta al servidor mediante Sockets.
El servidor devuelve el objeto Cliente consultado en formato JSON.
En el backend las cédulas desde 98000001 hasta 98000010.

Número de identificación: 98000001

Buscar

*Nombres: Andrea

*Apellidos: Sanchez

Dirección: Calle 14 No 11-12 Popayan

Celular: 3145878752

Email: andrea@hotmail.com

*Sexo (M, F): Femenino

Cerrar

3. Correr el Web Server(infra.web) que vienen en el mismo proyecto AgencyTravelServer. Usar un cliente postman para hacer la consulta, recuerden que el protocolo cambi6 y ahora s6lo van los par6metros.

The image shows a Postman REST client interface and an IDE output window. The Postman window displays a GET request to `http://localhost:8003/client` with a JSON body containing a parameter for ID. The response is a JSON object with user details. The IDE output window shows the execution of the `TravelAgency-Server` application, including the command to run the jar file and the output of the Maven plugin.

Postman Request:

- Method: GET
- URL: `http://localhost:8003/client`
- Body (JSON):

```
1 [{"parameters":[{"name":"id","value":"98000010"}]}]
```

Postman Response:

- Status: 200 OK
- Time: 13 ms
- Size: 250 B
- Body (JSON):

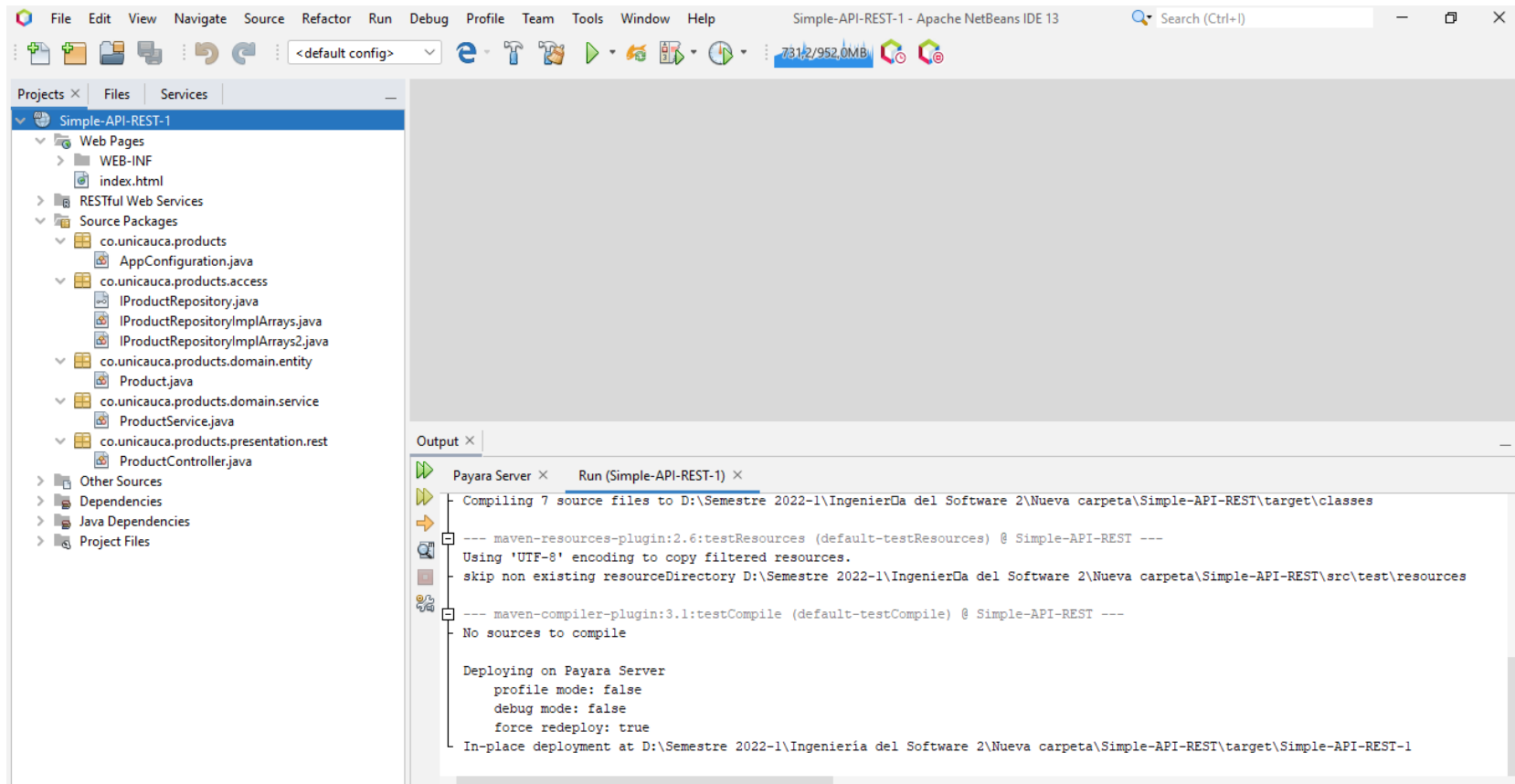
```
1 {"id":"98000010","firstName":"Alexander","lastName":"Ponce Yepes","address":"Calle 12 No 12-12 Popayan",
  "mobile":"3154575845","email":"fer@hotmail.com","gender":"Masculino"}
```

IDE Output - Run (WebServer):

```
-----< co.unicauca.agencia.servidor:TravelAgency-Server >-----
Building TravelAgency-Server 1.0-SNAPSHOT
-----[ jar ]-----

--- exec-maven-plugin:3.0.0:exec (default-cli) @ TravelAgency-Server ---
Servidor inicializado en el puerto 8003
{
  {"parameters":[{"name":"id","value":"98000010"}]}
```

4. Realizar el taller de la API Rest y probar las consultas a través de postman o un Jersey Client.





Hello World!

GET

http://localhost:8080/Simple-API-REST/product-service/products/

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

Body

Cookies

Headers (5)

Test Results



Status: 200 OK

Time: 538 ms

Size: 392 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



```
1  [
2    {
3      "id": 1,
4      "name": "Tv samsung",
5      "price": 200000.0
6    },
7    {
8      "id": 2,
9      "name": "Tv lg",
10     "price": 300000.0
11   },
12   {
13     "id": 1,
14     "name": "Tablet asus RESD-TD-34",
15     "price": 400000.0
16   }
17 ]
```

GET http://localhost:8080/Simple-API-REST/product-service/products/1 Send

Params Authorization Headers (6) Body Pre-request Script Tests Settings Cookies

Body Cookies Headers (5) Test Results 🌐 Status: 200 OK Time: 16 ms Size: 290 B Save Response

Pretty Raw Preview Visualize JSON 🔍

```
1 {
2   "id": 1,
3   "name": "Tv samsung",
4   "price": 200000.0
5 }
```

POST http://localhost:8080/Simple-API-REST/product-service/products/ Send

Params Authorization Headers (8) Body ● Pre-request Script Tests Settings Cookies

● none ● form-data ● x-www-form-urlencoded ● raw ● binary ● GraphQL JSON ▼ Beautify

Body Cookies Headers (5) Test Results 🌐 Status: 200 OK Time: 31 ms Size: 294 B Save Response

Pretty Raw Preview Visualize Text 🔍

```
1 {
2   "id": 4,
3   "name": "PC-Lenovo",
4   "price": 3500000.0
5 }
```

```
1 {"ok": "true", "mensaje": "Producto creado", "errores": ""}
```

DELETE

http://localhost:8080/Simple-API-REST/product-service/products/2

Send

ParamsAuthorizationHeaders (6)BodyPre-request ScriptTestsSettingsCookies

● none● form-data● x-www-form-urlencoded● raw● binary● GraphQLJSON

1

BodyCookiesHeaders (5)Test ResultsStatus: 200 OKTime: 10 msSize: 295 BSave Response

PrettyRawPreviewVisualizeText

1{"ok": "true", "mensaje": "Producto borrado", "errores": ""}

PUT

http://localhost:8080/Simple-API-REST/product-service/products/

Send

ParamsAuthorizationHeaders (8)BodyPre-request ScriptTestsSettingsCookies

● none● form-data● x-www-form-urlencoded● raw● binary● GraphQLJSON

1{"id": 1,
2" name": "Tv samsung FHD-4K",
3" price": 3000000.0
4
5}

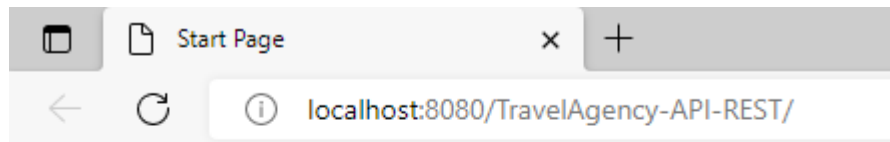
BodyCookiesHeaders (5)Test ResultsStatus: 200 OKTime: 16 msSize: 298 BSave Response

PrettyRawPreviewVisualizeText

1{"ok": "true", "mensaje": "Producto modificado", "errores": ""}

```
--- exec-maven-plugin:3.0.0:exec (default-cli) @ Cliente-Rest ---  
1  
Tv samsung  
200000.0  
-----  
BUILD SUCCESS  
-----  
Total time: 3.740 s  
Finished at: 2022-06-25T00:43:53-05:00  
-----
```

5. Hacer una API Rest para el AgencyTravelServer. Probarla desde un Jersey Client o a través de postman.



Hello World!

GET

http://localhost:8080/TravelAgency-API-REST/customer-service/customers/98000010

Send

Params

Authorization

Headers (6)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

1

Body

Cookies

Headers (5)

Test Results



Status: 200 OK

Time: 23 ms

Size: 419 B

Save Response

Pretty

Raw

Preview

Visualize

JSON



```
1  
2  "address": "Calle 12 No 12-12 Popayan",  
3  "email": "fer@hotmail.com",  
4  "firstName": "Alexander",  
5  "gender": "Masculino",  
6  "id": "98000010",  
7  "lastName": "Ponce Yepes",  
8  "mobile": "3154575845"  
9
```

POST

http://localhost:8080/TravelAgency-API-REST/customer-service/customers/

Send

Params

Authorization

Headers (8)

Body

Pre-request Script

Tests

Settings

Cookies

none

form-data

x-www-form-urlencoded

raw

binary

GraphQL

JSON

Beautify

```
1 {
2   ... "id": "98000011",
3   ... "firstName": "Jose",
4   ... "lastName": "Garcia",
5   ... "address": "Calle 150 No 87-12 Bogotá",
6   ... "mobile": "314930284",
7   ... "email": "pepegro@hotmail.com",
8   ... "gender": "Masculino"
9 }
```

Body

Cookies

Headers (5)

Test Results



Status: 200 OK

Time: 52 ms

Size: 293 B

Save Response

Pretty

Raw

Preview

Visualize

Text



```
1 {"ok": "true", "mensaje": "Cliente creado", "errores": ""}
```