

DESAFIO 16 – BACKEND CODERHOUSE

GERMÁN ALFONSO LOAIZA PINTO

CURSADA 28220

2022 - ABRIL

Sin/Con Compresión

- Sin compresión

The screenshot displays a web browser window with two tabs: 'Curso de Programación Backend' and 'localhost:8080/info'. The address bar shows 'localhost:8080/info'. The browser console on the left contains the following output:

- Sistema operativo: win32
- Node version: v14.15.4
- Path de ejecución: C:\Program Files\nodejs\node.exe
- Carpeta del proyecto: D:\germa\Downloads\GermanBK\OKCoder\CoderBackend28220
- Argumentos de entrada: [object Object]
- ID: 23228
- Memoria total reservada: 56168 KB
- numcpu: 8

The DevTools interface is open, showing the 'Network' tab. A single request is visible, named 'info', with a status of 200 and a type of 'document'. The size is 617 B and the time is 23 ms. The 'Waterfall' tab is also visible, showing the request timeline. The bottom status bar indicates '1 requests', '617 B transferred', '387 B resources', 'Finish: 23 ms', 'DOMContentLoaded: 114 ms', and 'Load: 114 ms'.

- Sin compresión

Curso de Programación Backend | localhost:8080/info | localhost:8080/api/randoms

localhost:8080/api/randoms

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  "ocurrencias": [
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  ]
}
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DevTools is now available in Spanish! Always match Chrome's language Switch DevTools to Spanish Don't show again

Elements Console Sources Network Performance Memory Application Security Lighthouse Recorder

Filter ☐ Invert ☐ Hide data URLs All Fetch/XHR JS CSS Img Media Font Doc WS Wasm Manifest Other ☐ Has blocked cookies ☐ Blocked Requests ☐ 3rd-party requests

100 ms 200 ms 300 ms 400 ms 500 ms 600 ms 700 ms 800 ms 900 ms 1000 ms 1100 ms 1200 ms 1300 ms 1400 ms 1500 ms 1600 ms 1700 ms 1800 ms 1900 ms 2000 ms

Name	Status	Type	Initiator	Size	Time	Waterfall
randoms	200	document	Other	12.6 kB	1.92 s	

1 requests | 12.6 kB transferred | 12.4 kB resources | Finish: 1.92 s | DOMContentLoaded: 2.02 s | Load: 2.02 s

- Con compresión

The screenshot displays a web browser window with two tabs: 'Curso de Programación Backend' and 'localhost:8080/info'. The address bar shows 'localhost:8080/info'. To the left of the browser, a list of system information is visible:

- Sistema operativo: win32
- Node version: v14.15.4
- Path de ejecución: C:\Program Files\nodejs\node.exe
- Carpeta del proyecto: D:\germa\Downloads\GermanBK\OKCoder\CoderBackend28220
- Argumentos de entrada: [object Object]
- ID: 13288
- Memoria total reservada: 46104 KB
- numcpu: 8

The DevTools interface is open, showing the 'Network' tab. A single request named 'info' is listed with a status of 200, type of document, and a size of 640 B. The 'Waterfall' column shows a duration of 7 ms. The bottom status bar indicates: 1 requests | 640 B transferred | 387 B resources | Finish: 7 ms | DOMContentLoaded: 113 ms | Load: 113 ms.

- Con compresión

Curso de Programación Backend x localhost:8080/info x localhost:8080/api/randoms +

localhost:8080/api/randoms

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ARTILLERY

- Instalamos artillery “npm i artillery -g”
- Ejecutamos proyecto “node index.js 8080 -m fork”
- Ejecutamos “artillery quick --count 50 -n 20 http://localhost:8080/api/randoms?max=100000 > logs/result_fork.txt”

Visual Studio Code interface showing the execution of an artillery test. The Explorer panel on the left displays the project structure, including files like `index.js`, `package.json`, and `logs`. The main editor displays the content of `result_fork.txt`, which contains performance metrics for a test run. The Terminal panel at the bottom shows the command used to run the test: `artillery quick --count 50 -n 20 http://localhost:8080/in...fo?max=100000 > logs/result_fork.txt`.

```

logs > result_fork.txt
1  Phase started: unnamed (index: 0, duration: 1s) 20:28:22(-0500)
2
3  Phase completed: unnamed (index: 0, duration: 1s) 20:28:23(-0500)
4
5  -----
6  Metrics for period to: 20:28:30(-0500) (width: 2.43s)
7  -----
8
9  http.codes.200: ..... 1000
10 http.request_rate: ..... 416/sec
11 http.requests: ..... 1000
12 http.response_time:
13   min: ..... 3
14   max: ..... 150
15   median: ..... 71.5
16   p95: ..... 127.8
17   p99: ..... 135.7
18 http.responses: ..... 1000
19 vusers.completed: ..... 50
20 vusers.created: ..... 50
  
```

Terminal output:

```

D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>artillery quick --count 50 -n 20 http://localhost:8080/in...fo?max=100000 > logs/result_fork.txt
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>
  
```


- Ejecutamos proyecto "node index.js 8080 -m cluster"
- Ejecutamos "artillery quick --count 50 -n 20 http://localhost:8080/info?max=100000 > logs/result_cluster.txt"

The screenshot shows the Visual Studio Code interface with the Explorer, Explorer, and Terminal panels. The Explorer panel on the left shows the file structure of the project, including the logs directory. The Explorer panel on the right shows the content of the log file, which contains the output of the artillery test. The Terminal panel at the bottom shows the command used to run the test.

```

logs > result_cluster.txt
1 Phase started: unnamed (index: 0, duration: 1s) 20:36:46(-0500)
2
3 Phase completed: unnamed (index: 0, duration: 1s) 20:36:47(-0500)
4
5 -----
6 Metrics for period to: 20:36:50(-0500) (width: 2.531s)
7 -----
8
9 http.codes.200: ..... 1000
10 http.request_rate: ..... 399/sec
11 http.requests: ..... 1000
12 http.response_time:
13   min: ..... 2
14   max: ..... 104
15   median: ..... 46.1
16   p95: ..... 76
17   p99: ..... 83.9
18 http.responses: ..... 1000
19 vusers.completed: ..... 50
20 vusers.created: ..... 50
21 vusers.created_by_name.0: ..... 50
22 vusers.failed: ..... 0
23 vusers.session_length:
24   min: ..... 730.3
25   max: ..... 1620.8
26   median: ..... 1408.4
27   p95: ..... 1587.9
28   p99: ..... 1620
29
30

```

The Terminal panel shows the command used to run the test:

```

D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>artillery quick --count 50 -n 20 http://localhost:8080/info?max=100000 > logs/result_cluster.txt
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>

```

PROFILING

- Ejecutamos proyecto "node --prof index.js"

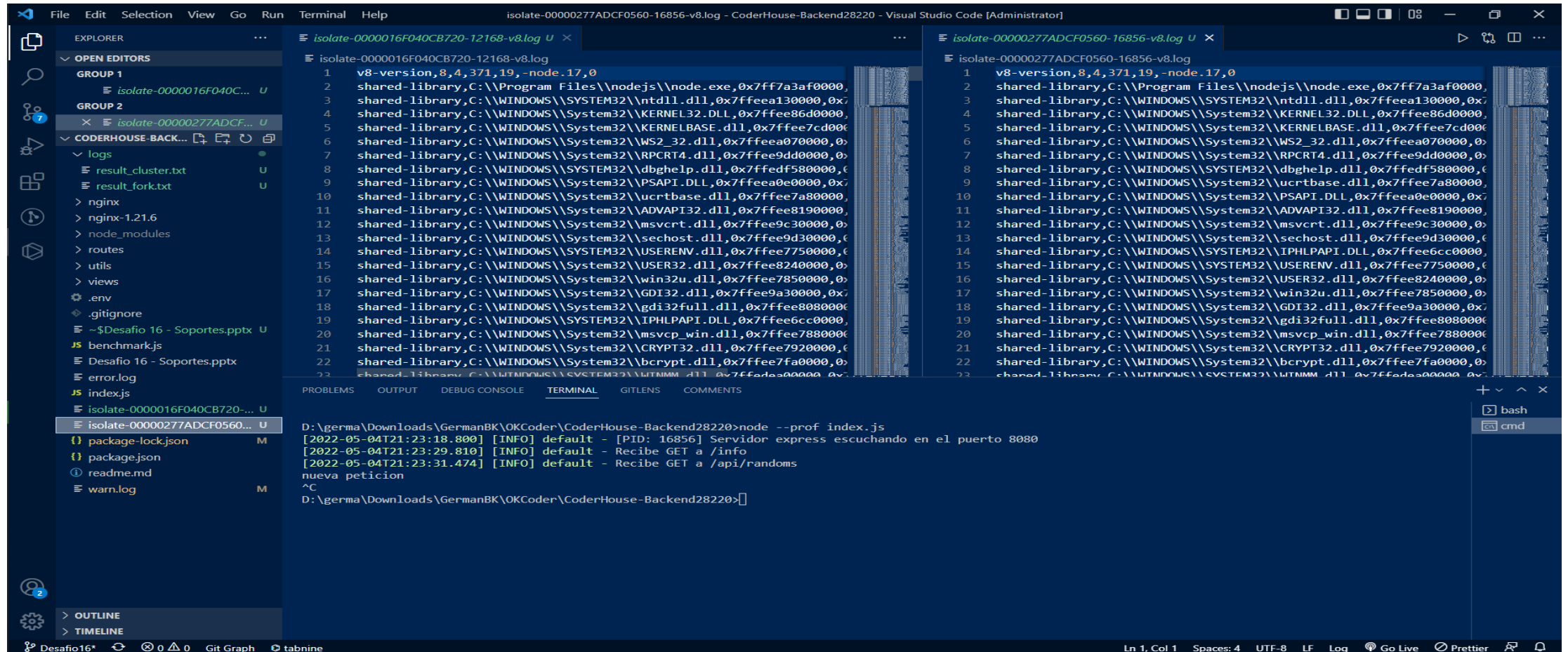
The screenshot shows the Visual Studio Code interface with the following components:

- EXPLORER:** Displays the file structure of the project, including `logs`, `nginx`, `node_modules`, `routes`, `utils`, `views`, `.env`, `.gitignore`, `Desafio 16 - Soportes.pptx`, `benchmark.js`, `error.log`, `index.js`, `isolate-0000016F040CB720-...`, `isolate-00000277ADCF0560-...`, `package-lock.json`, `package.json`, `readme.md`, and `warn.log`.
- EDITOR:** Shows the `index.js` file with the following code:

```
1 const express = require('express');
2 const session = require('express-session');
3 const MongoStore = require('connect-mongo');
4 const passport = require('passport');
5 const parseArgs = require('minimist');
6 const compression = require('compression')
7 const logger = require('./utils/logger.js')
8
9 const { Strategy: FacebookStrategy } = require('passport-facebook');
10 const advancedOptions = { useUrlParser: true, useUnifiedTopology: true};
11
12 const args = parseArgs(process.argv.slice(2), {alias: {p: 'PUERTO', m: "MODO"} });
13 const PORT = process.env.PORT || args.PUERTO || 8080
14 const MODO = args.MODO || 'fork' //
15 const app = express();
16 app.use(compression());
17
18 //
19 const cluster = require('cluster')
20 const numCPUs = require('os').cpus().length
21
22 /*
```
- TERMINAL:** Shows the command `D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>node --prof index.js` and its output:

```
[2022-05-04T21:23:18.800] [INFO] default - [PID: 16856] Servidor express escuchando en el puerto 8080
[2022-05-04T21:23:29.810] [INFO] default - Recibe GET a /info
[2022-05-04T21:23:31.474] [INFO] default - Recibe GET a /api/randoms
nueva peticion
^C
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>
```
- STATUS BAR:** Shows the current file is `Desafio16*`, the editor is `Git Graph`, and the language is `JavaScript`.

- Nos genera archivos *.log.



- Ejecutamos “artillery quick --count 50 -n 20 http://localhost:8080/info?max=100000 > logs/result_profiling.txt”

The screenshot shows the Visual Studio Code interface with the Explorer, Explorer, and Terminal panels. The Explorer panel on the left shows the file structure of the project, including the 'logs' directory and various configuration files. The Explorer panel on the right shows the 'result_profiling.txt' file. The Terminal panel at the bottom shows the output of the artillery test command.

```

File Edit Selection View Go Run Terminal Help
result_profiling.txt - CoderHouse-Backend28220 - Visual Studio Code [Administrator]

EXPLORER
OPEN EDITORS
result_profiling.txt logs U
CODERHOUSE_BACKEND28220
logs
result_cluster.txt U
result_fork.txt U
result_inspect.txt U
result_noblog.txt U
result_profiling.txt U
> nginx
> nginx-1.21.6
> node_modules
> routes
> utils
> views
.env
.gitignore
~$Desafio 16 - Soportes.pptx U
benchmark.js
Desafio 16 - Soportes.pptx
error.log
index.js
isolate-000002F7C6A5CF20... U
isolate-0000027ACDF00810... U
package-lock.json M
package.json
README.md
warn.log M

OUTLINE
TIMELINE

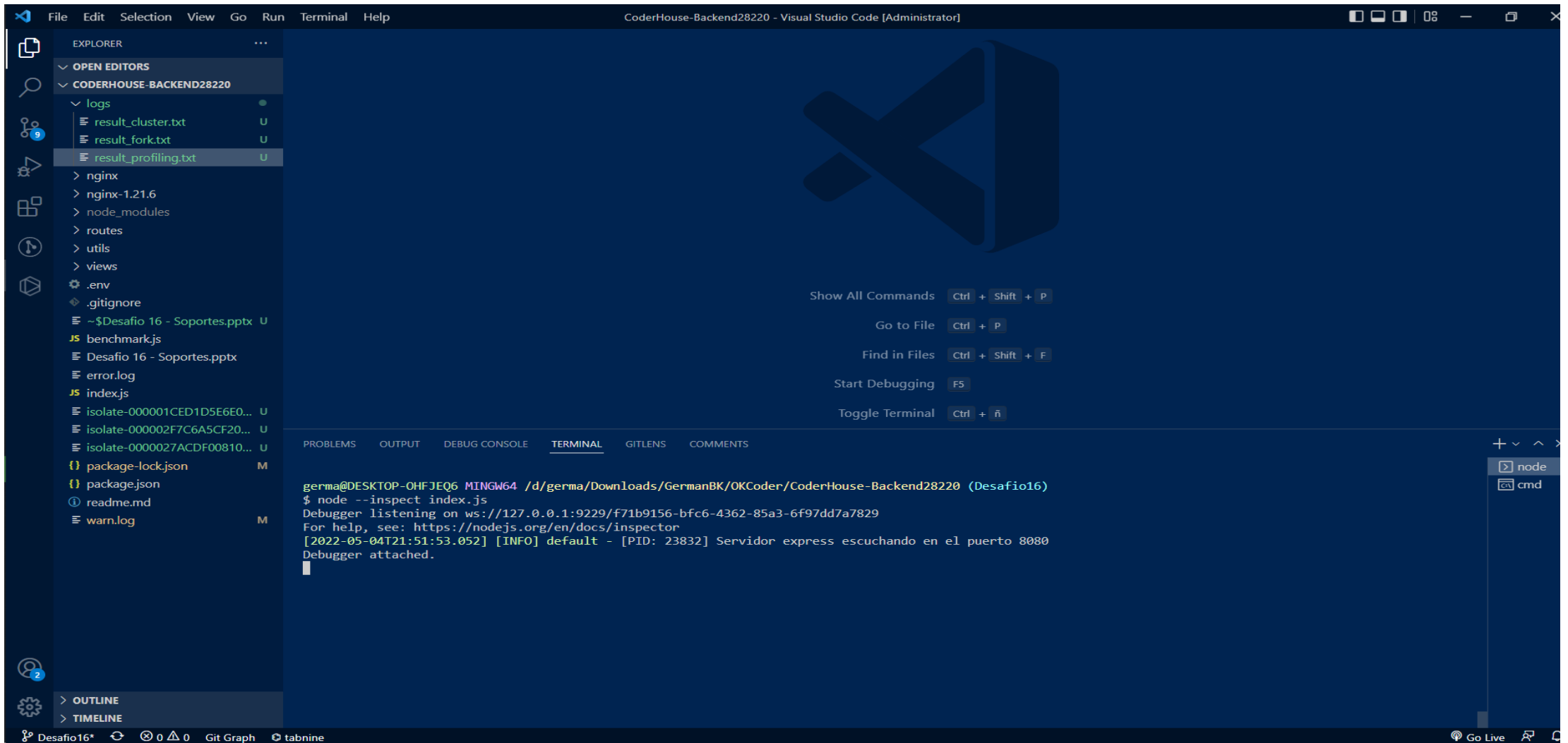
result_profiling.txt
logs > result_profiling.txt
1 Phase started: unnamed (index: 0, duration: 1s) 21:48:06(-0500)
2
3 Phase completed: unnamed (index: 0, duration: 1s) 21:48:07(-0500)
4
5 -----
6 Metrics for period to: 21:48:10(-0500) (width: 2.646s)
7 -----
8
9 http.codes.200: ..... 1000
10 http.request_rate: ..... 381/sec
11 http.requests: ..... 1000
12 http.response_time:
13   min: ..... 3
14   max: ..... 171
15   median: ..... 83.9
16   p95: ..... 127.8
17   p99: ..... 159.2
18 http.responses: ..... 1000
19 vusers.completed: ..... 50
20 vusers.created: ..... 50
21 vusers.created_by_name.0: ..... 50
22 vusers.failed: ..... 0
23 vusers.session_length: .....

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS COMMENTS
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>curl -X GET "http://localhost:8080/info?max=100000"

<ul>
<li>Sistema operativo: win32</li>
<li>Node version: v14.15.4</li>
<li>Path de ejecución: C:\Program Files\nodejs\node.exe</li>
<li>Carpeta del proyecto: D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220</li>
<li>Argumentos de entrada: [object Object]</li>
<li>ID: 2240</li>
<li>Memoria total reservada: 68236 KB</li>
<li>numcpu: 8</li>
</ul>
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>artillery quick --count 50 -n 20 "http://localhost:8080/info?max=100000" > logs/result_profiling.txt
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>
  
```

INSPECT

- Ejecutamos proyecto "node --inspect index.js"



- Ejecutamos “artillery quick --count 50 -n 20 http://localhost:8080/info?max=100000 > logs/result_inspect.txt”

The screenshot shows the Visual Studio Code interface with the Explorer, Explorer, and Terminal panels. The Explorer panel on the left shows the project structure, including the logs directory. The Explorer panel in the center shows the content of the result_inspect.txt file, which contains the output of the artillery test. The Terminal panel at the bottom shows the command used to run the test and the resulting JSON output.

```

logs > result_inspect.txt
1 Phase started: unnamed (index: 0, duration: 1s) 21:53:27(-0500)
2
3 Phase completed: unnamed (index: 0, duration: 1s) 21:53:28(-0500)
4
5 -----
6 Metrics for period to: 21:53:40(-0500) (width: 1.46s)
7 -----
8
9 http.codes.200: ..... 362
10 http.request_rate: ..... 222/sec
11 http.requests: ..... 320
12 http.response_time:
13   min: ..... 17
14   max: ..... 244
15   median: ..... 144
16   p95: ..... 228.2
17   p99: ..... 232.8
18 http.responses: ..... 362
19 vusers.completed: ..... 43
20 vusers.failed: ..... 0
21 vusers.session_length:
22   min: ..... 2019.2
23   max: ..... 2011.4
  
```

```

D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>curl -X GET "http://localhost:8080/info?max=100000"

<ul>
<li>Sistema operativo: win32</li>
<li>Node version: v14.15.4</li>
<li>Path de ejecución: C:\Program Files\nodejs\node.exe</li>
<li>Carpeta del proyecto: D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220</li>
<li>Argumentos de entrada: [object Object]</li>
<li>ID: 23832</li>
<li>Memoria total reservada: 102268 KB</li>
<li>numcpu: 8</li>
</ul>
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>artillery quick --count 50 -n 20 "http://localhost:8080/info?max=100000" > logs/result_inspect.txt
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>
  
```


- Abrimos Chrome, e ingresamos la siguiente ruta "chrome://inspect/"
- Open dedicated DevTools for Node
- Podremos interactuar con esta Herramienta.

The screenshot shows the Visual Studio Code interface with a Node.js application running. The Explorer panel on the left shows the project structure, including files like `result_inspect.txt`, `result_cluster.txt`, `result_fork.txt`, `result_profiling.txt`, `nginx`, `nginx-1.21.6`, `node_modules`, `routes`, `utils`, `views`, `.env`, `.gitignore`, `~$Desafio 16 - Soportes.pptx`, `JS benchmark.js`, `Desafio 16 - Soportes.pptx`, `error.log`, `JS index.js`, `isolate-000001CED1D5E6E0...`, `isolate-000002F7C6A5CF20...`, `isolate-0000027ACDF00810...`, `package-lock.json`, `package.json`, `readme.md`, and `warn.log`.

The main editor shows the `result_inspect.txt` file with the following content:

```
logs > result_inspect.txt
1 Phase started: unnamed (index: 0, duration: 1s) 21:56:37(-0500)
2
3 Phase completed: unnamed (index: 0, duration: 1s) 21:56:38(-0500)
4 -----
5
6 Met DevTools - Node.js
7 DevTools is now available in Spanish! Always match Chrome's language Switch DevTools to Spanish Don't show again
8
9 Connection Console Sources Memory Profiler
10 Heavy (Bottom Up)
11
12 CPU PROFILES
13 Profile 1 Save
14
15 Self Time Total Time Function
16 38301.9 ms 92.01 % 38301.9 ms 92.01 % (program)
17 960.9 ms 2.31 % 1383.4 ms 3.32 % consoleCall
18 309.9 ms 0.74 % 309.9 ms 0.74 % writeUtf8String
19 87.6 ms 0.21 % 87.6 ms 0.21 % writev
20 72.4 ms 0.17 % 7696.6 ms 18.49 % next index.js:176
21 61.4 ms 0.15 % 61.4 ms 0.15 % (garbage collector)
22 42.6 ms 0.10 % 125.0 ms 0.30 % authenticate authenticate.js:94
23 41.7 ms 0.10 % 739.9 ms 1.78 % send response.js:107
24 36.4 ms 0.09 % 99.5 ms 0.24 % hash index.js:594
25 36.2 ms 0.09 % 41.0 ms 0.10 % nextTick internal/process_queues.js:107
26 34.8 ms 0.08 % 797.1 ms 1.91 % (anonymous) index.js:150
27 34.5 ms 0.08 % 34.5 ms 0.08 % (anonymous)
28 34.1 ms 0.08 % 69.6 ms 0.17 % Hash internal/crypto/hash.js:37
29 31.9 ms 0.08 % 31.9 ms 0.08 % getContrast internal/tty.js:107
30 28.2 ms 0.07 % 51.7 ms 0.12 % writeHead http_server.js:250
31 27.4 ms 0.07 % 334.2 ms 0.80 % compression index.js:59
32 26.6 ms 0.06 % 34.5 ms 0.08 % asString index.js:25
33 24.7 ms 0.06 % 24.7 ms 0.06 % setWriteHeadHeaders index.js:105
34 23.5 ms 0.06 % 27.9 ms 0.07 % parse index.js:104
35 22.3 ms 0.05 % 58.7 ms 0.14 % header response.js:755
36 22.0 ms 0.05 % 46.2 ms 0.11 % setHeader http_outgoing.js:554
37 20.9 ms 0.05 % 10736.5 ms 25.79 % handle layer.js:84
38 18.5 ms 0.04 % 297.6 ms 0.71 % session index.js:176
39 17.8 ms 0.04 % 89.9 ms 0.22 % pipe index.js:510
40 17.4 ms 0.04 % 17.4 ms 0.04 % memoryUsage
41
42 <ul>
43 <li>Path de ejecución: C:\Program Files\nodejs\node.exe</li>
44 <li>Carpeta del proyecto: D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220</li>
45 <li>Argumentos de entrada: [object Object]</li>
46 <li>ID: 15100</li>
47 <li>Memoria total reservada: 53704 KB</li>
48 <li>numcpu: 8</li>
49 </ul>
50 D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>artillery quick --count 50 -n 20 "http://localhost:8080/info?max=100000" > logs/result_inspect.txt
51 t
52 D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>
```

The Profiler panel shows a table of CPU profiles with columns for Self Time, Total Time, and Function. The table lists various functions and their execution times, including `(program)`, `consoleCall`, `writeUtf8String`, `writev`, `next`, `(garbage collector)`, `authenticate`, `send`, `hash`, `nextTick`, `(anonymous)`, `Hash`, `getContrast`, `writeHead`, `compression`, `asString`, `setWriteHeadHeaders`, `parse`, `header`, `setHeader`, `handle`, `session`, `pipe`, and `memoryUsage`.

The bottom status bar shows the file path `D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220` and the status `Ln 81, Col 1 Spaces: 2 UTF-8 LF Plain Text`.

AUTOCANNON - 0X

- Instalamos autocannon y 0x

The screenshot shows the Visual Studio Code interface with the Explorer, Source Control, and Run and Debug views on the left. The Explorer view shows the project structure for 'CODERHOUSE-BACKEND28220'. The Source Control view shows the changes in the 'package.json' file. The Run and Debug view shows the terminal output of the installation process.

```
package.json
{
  "name": "CoderHouse-Backend28220",
  "version": "1.0.0",
  "description": "Backend for CoderHouse",
  "main": "index.js",
  "scripts": {
    "start": "node index.js",
    "test": "echo \"Error: no test specified\" & exit 1"
  },
  "repository": {
    "url": "https://github.com/GerLoaiza03/CoderHouse-Backend28220/issues"
  },
  "homepage": "https://github.com/GerLoaiza03/CoderHouse-Backend28220#readme",
  "dependencies": {
    "autocannon": "^7.9.0",
    "compression": "^1.7.4",
    "connect-mongo": "^4.6.0",
    "dotenv": "^16.0.0",
    "express": "^4.17.3",
    "express-handlebars": "^6.0.5",
    "express-session": "^1.17.2",
    "log4js": "^6.4.6",
    "minimist": "^1.2.6",
    "mongodb": "^4.5.0",
    "passport": "^0.5.2",
    "passport-facebook": "^3.0.0"
  }
}
```

```
germa@DESKTOP-OHFJEQ6 MINGW64 /d/germa/Downloads/GermanBK/OKCoder/CoderHouse-Backend28220 (Desafio16)
$ npm i autocannon --save
+ autocannon@7.9.0
added 44 packages from 51 contributors and audited 176 packages in 9.739s

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

germa@DESKTOP-OHFJEQ6 MINGW64 /d/germa/Downloads/GermanBK/OKCoder/CoderHouse-Backend28220 (Desafio16)
$ npm i -g 0x
[.....] / rollbackFailedOptional: verb npm-session 1f00921c14d3ac91
```

- Modificamos el scripts de "start", para iniciar el proyecto por "0x index.js"

The screenshot shows the Visual Studio Code interface with the following components:

- EXPLORER:** Displays the file structure of the project "CODERHOUSE_BACKEND28220". The "package.json" file is selected and highlighted in blue.
- EDITOR:** Shows the content of "package.json". The "scripts" section is highlighted, and the "start" script is being edited to "0x index.js". A tooltip indicates "You, now * Uncommitted changes".
- TERMINAL:** Shows the output of the following commands:

```
germa@DESKTOP-OHFJEQ6 MINGW64 /d/germa/Downloads/GermanBK/OKCoder/CoderHouse-Backend28220 (Desafio16)
$ npm i autocannon --save
+ autocannon@7.9.0
added 44 packages from 51 contributors and audited 176 packages in 9.739s

11 packages are looking for funding
  run `npm fund` for details

found 0 vulnerabilities

germa@DESKTOP-OHFJEQ6 MINGW64 /d/germa/Downloads/GermanBK/OKCoder/CoderHouse-Backend28220 (Desafio16)
$ npm i -g 0x
C:\Users\germa\AppData\Roaming\npm\0x -> C:\Users\germa\AppData\Roaming\npm\node_modules\0x\cmd.js
+ 0x@5.2.1
added 288 packages from 156 contributors in 34.056s

germa@DESKTOP-OHFJEQ6 MINGW64 /d/germa/Downloads/GermanBK/OKCoder/CoderHouse-Backend28220 (Desafio16)
$
```

- Ejecutamos proyecto "npm start"

The screenshot shows the Visual Studio Code interface with the following components:

- EXPLORER:** Displays the file structure of the project 'CODERHOUSE-BACKEND28220'. Files include logs, nginx, node_modules, routes, utils, views, .env, .gitignore, and various test files like result_cluster.txt, result_fork.txt, result_inspect.txt, result_profiling.txt, benchmark.js, error.log, index.js, isolate-000001CED1D5E6E0..., isolate-000002F7C6A5CF20..., isolate-0000027ACDF00810..., isolate-00000227313AC5E0..., package-lock.json, package.json, readme.md, and warn.log.
- package.json:** The main configuration file for the project. It contains the following JSON structure:

```
{
  "name": "desafio16",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "start": "0x index.js",
    "test": "node benchmark.js"
  },
  "repository": {
    "type": "git",
    "url": "git+https://github.com/GerLoaiza03/CoderHouse-Backend28220.git"
  },
  "keywords": [],
  "author": "",
  "license": "ISC",
  "bugs": {
    "url": "https://github.com/GerLoaiza03/CoderHouse-Backend28220/issues"
  },
  "homepage": "https://github.com/GerLoaiza03/CoderHouse-Backend28220#readme",
  "dependencies": {}
}
```
- TERMINAL:** Shows the command prompt output for running 'npm start'. The output is:

```
germa@DESKTOP-OHFJEQ6 MINGW64 /d/germa/Downloads/GermanBK/OKCoder/CoderHouse-Backend28220 (Desafio16)
$ npm start

> desafio16@1.0.0 start D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220
> 0x index.js

Profiling[2022-05-04T22:06:13.324] [INFO] default - [PID: 7364] Servidor expres escuchando en el puerto 8080
```

- Ejecutamos “node benchmark.js”

package.json

```
{
  "name": "desafio16",
  "version": "1.0.0",
  "description": "",
  "main": "index.js",
  "scripts": {
    "start": "0x index.js",
    "test": "node benchmark.js"
  },
  "repository": {
    "type": "git",
    "url": "git+https://github.com/GerLoaiza03/CoderHouse-Backend28220.git"
  }
}
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL GITLENS COMMENTS

```
</ul>
D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220>npm test

> desafio16@1.0.0 test D:\germa\Downloads\GermanBK\OKCoder\CoderHouse-Backend28220
> node benchmark.js

Running all benchmarks in parallel ...
Running 20s test @ http://localhost:8080/info
100 connections
```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	60 ms	75 ms	139 ms	155 ms	83.32 ms	21.29 ms	196 ms

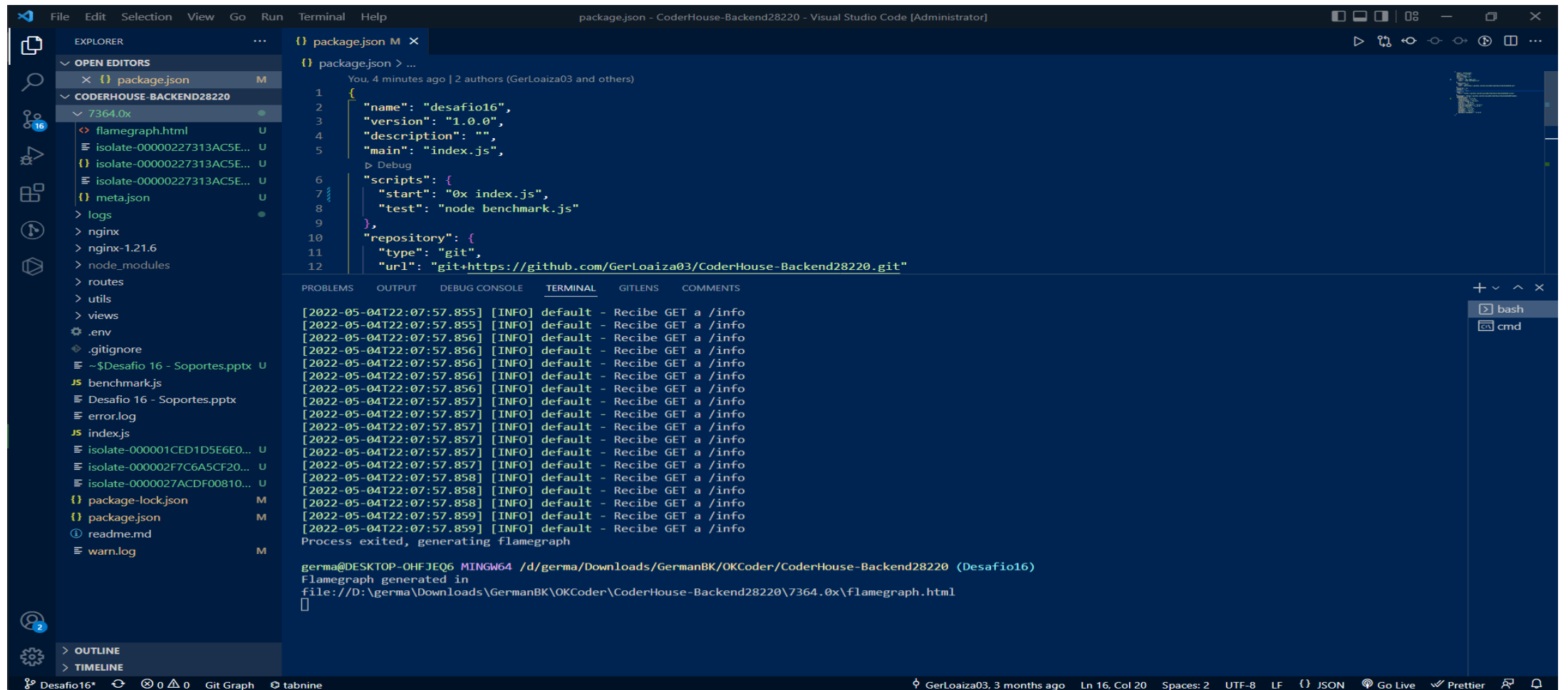
Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	747	747	1263	1399	1194.6	174.76	747
Bytes/Sec	477 kB	477 kB	808 kB	895 kB	765 kB	112 kB	477 kB

Req/Bytes counts sampled once per second.
of samples: 20

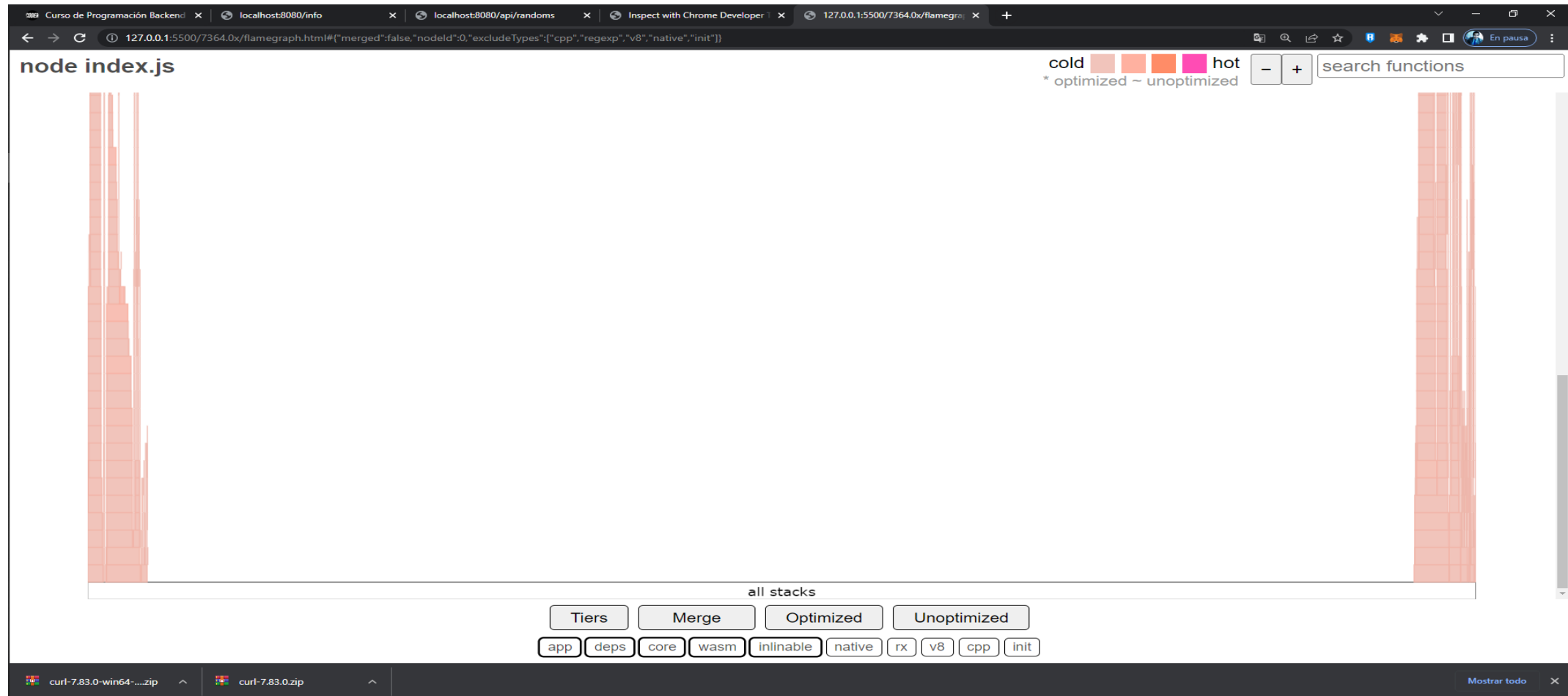
24k requests in 20.12s, 15.3 MB read

Desafio16* 0 0 0 Git Graph tabnine GerLoaiza03, 3 months ago Ln 16, Col 20 Spaces: 2 UTF-8 LF {} JSON Go Live Prettier

- Terminamos Proyecto una vez realizada esta accion, genera carpeta .0x, y generando dentro de esta el archive Flamegraph.



- Ejecutando Proyecto 0x con Curl.



- Ejecutando Proyecto 0x sin Curl.

