

GZIP:

Utilizando la compresión, la ruta info devuelve 1 kB, mientras que cuando no es utilizada devuelve 1.5 kB.

The image displays two screenshots of a web browser (Coderhouse) showing the 'info' endpoint. The browser's developer tools are open, showing the Network tab. The first screenshot shows the 'info' request with a status of 200, type 'document', and size 1.5 kB. The second screenshot shows the 'info' request with a status of 200, type 'document', and size 1.0 kB. The 'bootstrap.min.css' request is also visible in both screenshots.

First Screenshot (GZIP not used):

- Argumentos de entrada:
- Nombre de la plataforma (sistema operativo): win32
- Versión de node.js: v14.16.1
- Memoria total reservada (rss): 93306880
- Path de ejecución: C:\Program Files\nodejs\node.exe
- Process id: 29848
- Carpeta del proyecto: C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL\src\server.js
- N° de procesadores: 8

Second Screenshot (GZIP used):

- Argumentos de entrada:
- Nombre de la plataforma (sistema operativo): win32
- Versión de node.js: v14.16.1
- Memoria total reservada (rss): 94273536
- Path de ejecución: C:\Program Files\nodejs\node.exe
- Process id: 18512
- Carpeta del proyecto: C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL\src\server.js
- N° de procesadores: 8

Name	Status	Type	Initiator	Size	T...	Waterfall
information	200	docume...	Other	1.5 kB	6...	
bootstrap.min.css	200	styleshe...	informati...	(disk...	7...	

Name	Status	Type	Initiator	Size	T...	Waterfall
information	200	docume...	Other	1.0 kB	1...	
bootstrap.min.css	200	styleshe...	informati...	(disk...	2...	

2 requests | 1.5 kB transferred | 165 kB resources | Finish: 161 ms | DOMContentLoaded: 485 ms | Load: 500 ms

2 requests | 1.0 kB transferred | 165 kB resources | Finish: 67 ms | DOMContentLoaded: 347 ms | Load: 400 ms

23:32
21/09/2022

Artillery:

Con console.log

```

results_consoleLog.txt
1  Running scenarios...
2  Phase started: unnamed (index: 0, duration: 1s) 17:58:04(-0300)
3
4  Phase completed: unnamed (index: 0, duration: 1s) 17:58:05(-0300)
5
6  All VUs finished. Total time: 20 seconds
7
8  -----
9  Summary report @ 17:58:20(-0300)
10 -----
11
12 http.codes.200: ..... 1000
13 http.request_rate: ..... 51/sec
14 http.requests: ..... 1000
15 http.response_time:
16   min: ..... 17
17   max: ..... 581
18   median: ..... 183.1
19   p95: ..... 278.7
20   p99: ..... 361.5
21 http.responses: ..... 1000
22 vusers.completed: ..... 20
23 vusers.created: ..... 20
24 vusers.created_by_name.0: ..... 20
25 vusers.failed: ..... 0
26 vusers.session_length:
27   min: ..... 9123.3
28   max: ..... 9490.2
29   median: ..... 9230.4
30   p95: ..... 9416.8
31   p99: ..... 9416.8
32

```

Sin console.log

```

1 Running scenarios...
2 Phase started: unnamed (index: 0, duration: 1s) 19:22:25(-0300)
3
4 Phase completed: unnamed (index: 0, duration: 1s) 19:22:26(-0300)
5
6 All VUs finished. Total time: 10 seconds
7
8 -----
9 Summary report @ 19:22:32(-0300)
10 -----
11
12 http.codes.200: ..... 1000
13 http.request_rate: ..... 223/sec
14 http.requests: ..... 1000
15 http.response_time:
16   min: ..... 3
17   max: ..... 92
18   median: ..... 30.3
19   p95: ..... 46.1
20   p99: ..... 53
21 http.responses: ..... 1000
22 vusers.completed: ..... 20
23 vusers.created: ..... 20
24 vusers.created_by_name.0: ..... 20
25 vusers.failed: ..... 0
26 vusers.session_length:
27   min: ..... 1354.5
28   max: ..... 1670.4
29   median: ..... 1525.7
30   p95: ..... 1652.8
31   p99: ..... 1652.8
32

```

Podemos ver que con el console.log (proceso bloqueante), el código es mucho menos eficiente ya que tiene una media de response_time de 183.1, mientras que sin el proceso bloqueante es de 30.3. Además con el console.log el proceso demoró 20 segundos mientras que sin solo 10, es decir el doble. También comparando los request_rate, vemos que sin el proceso bloqueante es más eficiente ya que es mayor.

Profiling:

Con console.log

```

1  Statistical profiling result from results_prof_consoleLog-v8.log, (5550 ticks, 0 unaccounted, 0 excluded).
2
3  [Shared libraries]:
4      ticks  total  nonlib   name
5      5518   99.4%         C:\WINDOWS\SYSTEM32\ntdll.dll
6      32     0.6%         C:\Program Files\nodejs\node.exe
7
8  [JavaScript]:
9      ticks  total  nonlib   name
10
11 [C++]:
12      ticks  total  nonlib   name
13
14 [Summary]:
15      ticks  total  nonlib   name
16      0       0.0%   NaN%    JavaScript
17      0       0.0%   NaN%    C++
18      5       0.1%   Infinity% GC
19      5550   100.0%         Shared libraries
20
21 [C++ entry points]:
22      ticks   cpp    total   name
23
24 [Bottom up (heavy) profile]:
25 Note: percentage shows a share of a particular caller in the total
26 amount of its parent calls.
27 Callers occupying less than 1.0% are not shown.
28
29      ticks parent   name
30      5518   99.4%   C:\WINDOWS\SYSTEM32\ntdll.dll
31
32

```

Sin console.log

```

1  results_NoconsoleLog-v8_prof_process.txt
2
3  ✓ [Shared libraries]:
4  ✓ | ticks total nonlib name
5  ✓ | 641 96.4% C:\WINDOWS\SYSTEM32\ntdll.dll
6  ✓ | 24 3.6% C:\Program Files\nodejs\node.exe
7
8  [JavaScript]:
9  | ticks total nonlib name
10
11 ✓ [C++]:
12 | ticks total nonlib name
13
14 ✓ [Summary]:
15 | ticks total nonlib name
16 | 0 0.0% NaN% JavaScript
17 | 0 0.0% NaN% C++
18 | 4 0.6% Infinity% GC
19 | 665 100.0% Shared libraries
20
21 ✓ [C++ entry points]:
22 | ticks cpp total name
23
24 ✓ [Bottom up (heavy) profile]:
25 Note: percentage shows a share of a particular caller in the total
26 amount of its parent calls.
27 ✓ Callers occupying less than 1.0% are not shown.
28
29 ✓ | ticks parent name
30 ✓ | 641 96.4% C:\WINDOWS\SYSTEM32\ntdll.dll
31
32 | 24 3.6% C:\Program Files\nodejs\node.exe
33 ✓ | 17 70.8% C:\Program Files\nodejs\node.exe
34 | 5 29.4% Function: ^compileForInternalLoader node:internal/bootstrap/loaders:316:27
35 | 5 100.0% Function: ^nativeModuleRequire node:internal/bootstrap/loaders:349:29
36 | 3 60.0% Function: ~<anonymous> node:repl:1:1
37 | 3 100.0% Function: ^compileForInternalLoader node:internal/bootstrap/loaders:316:27
38 | 1 20.0% Function: ~<anonymous> node:internal/repl:1:1
39 | 1 100.0% Function: ^compileForInternalLoader node:internal/bootstrap/loaders:316:27
40 | 1 20.0% Function: ~<anonymous> node:internal/process/esm_loader:1:1
41 | 1 100.0% LazyCompile: ~compileForInternalLoader node:internal/bootstrap/loaders:316:27
42 | 2 11.8% LazyCompile: ~compileForInternalLoader node:internal/bootstrap/loaders:316:27
43 | 2 100.0% LazyCompile: ~nativeModuleRequire node:internal/bootstrap/loaders:349:29
44 | 1 50.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
45 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
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92 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
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96 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
97 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
98 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
99 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1
100 | 1 100.0% Function: ~<anonymous> node:internal/modules/esm/loader:1:1

```

Vemos que sin el console.log el proceso es mucho más rápido y eficiente ya que lleva 641 ticks vs 5518 del proceso con console.log.

Autocannon:

Con Console.log

```
PS C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL> node src\benchmark.js
{"level":"info","message":"Running all benchmarks in parallel ..."}
Running 20s test @ http://localhost:8080/information
100 connections
```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	522 ms	586 ms	721 ms	748 ms	593.52 ms	61.83 ms	830 ms

Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	118	118	169	184	166.15	15.08	118
Bytes/Sec	183 kB	183 kB	262 kB	285 kB	257 kB	23.3 kB	183 kB

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

3k requests in 20.12s, 5.14 MB read

Sin Console.log

```
}
PS C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL> node src\benchmark.js
{"level":"info","message":"Running all benchmarks in parallel ..."}
Running 20s test @ http://localhost:8080/information
100 connections
```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	108 ms	124 ms	228 ms	266 ms	136.65 ms	33.54 ms	375 ms

Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	464	464	720	871	726.95	112.33	464
Bytes/Sec	718 kB	718 kB	1.11 MB	1.35 MB	1.12 MB	174 kB	718 kB

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

Podemos ver la eficiencia sin el proceso bloqueante al comparar la latencia promedio, que es de 136.65 ms vs 593.52 ms (más bajo mejor).

Chrome Inspect:

Con console.log

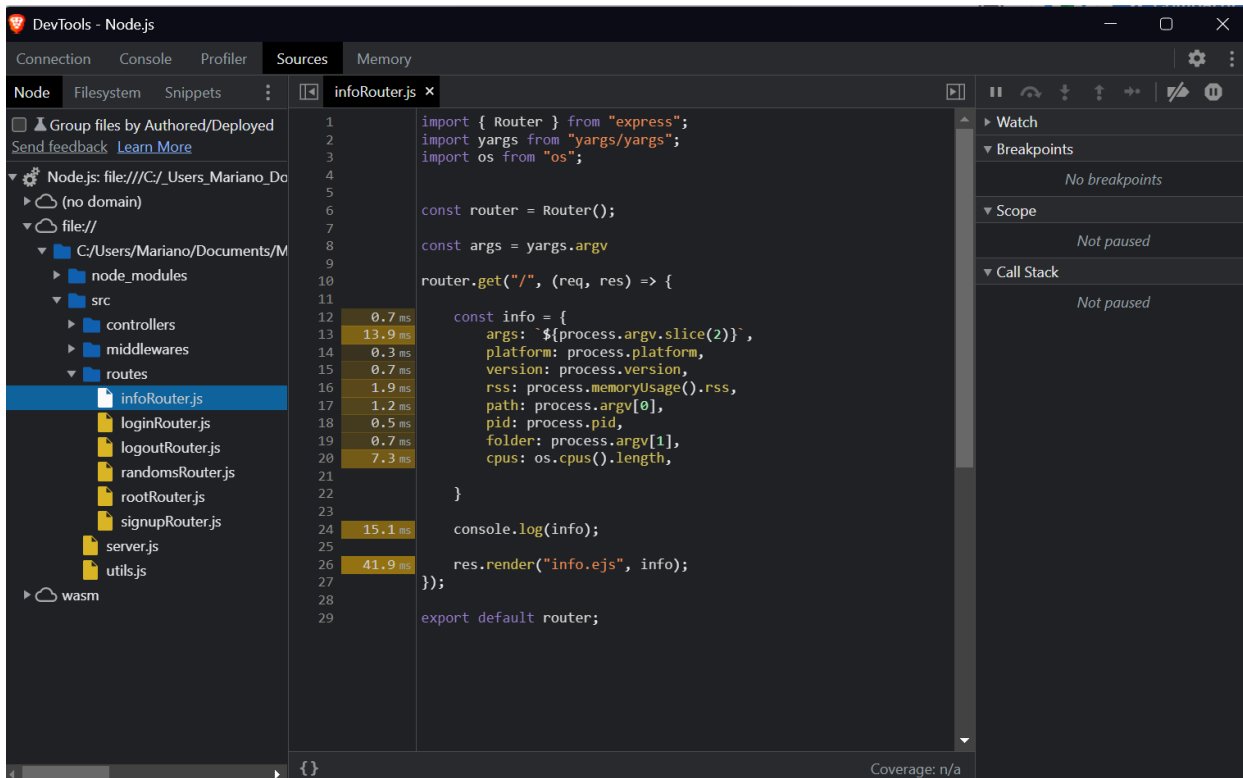
```
PS C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL> node src\benchmark.js
{"level":"info","message":"Running all benchmarks in parallel ..."}
Running 20s test @ http://localhost:8080/information
100 connections
```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	767 ms	1130 ms	1400 ms	1437 ms	1150.79 ms	159.43 ms	1578 ms

Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	56	56	84	99	84.55	9.68	56
Bytes/Sec	86.7 kB	86.7 kB	130 kB	153 kB	131 kB	15 kB	86.6 kB

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

2k requests in 20.2s, 2.62 MB read



DevTools - Node.js

Connection Console Profiler Sources Memory

Node Filesystem Snippets infoRouter.js x

Group files by Authored/Deployed
Send feedback Learn More

Node.js: file:///C:/_Users/Mariano_Doc/ (no domain)

file://

C:/Users/Mariano/Documents/M

node_modules

src

controllers

middlewares

routes

infoRouter.js

loginRouter.js

logoutRouter.js

randomsRouter.js

rootRouter.js

signupRouter.js

server.js

utils.js

wasm

1 import { Router } from "express";
2 import yargs from "yargs/yargs";
3 import os from "os";
4
5
6 const router = Router();
7
8 const args = yargs.argv
9
10 router.get("/", (req, res) => {
11
12 0.7 ms
13 13.9 ms
14 0.3 ms
15 0.7 ms
16 1.9 ms
17 1.2 ms
18 0.5 ms
19 0.7 ms
20 7.3 ms
21
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24 15.1 ms
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26 41.9 ms
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```
PS C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL> node src\benchmark.js
{"level":"info","message":"Running all benchmarks in parallel ..."}
Running 20s test @ http://localhost:8080/information
100 connections
```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	252 ms	1336 ms	2147 ms	2187 ms	1108.46 ms	694.39 ms	2218 ms

Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	27	27	60	333	84.2	76.62	27
Bytes/Sec	41.8 kB	41.8 kB	92.9 kB	515 kB	130 kB	119 kB	41.8 kB

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

2k requests in 20.24s, 2.61 MB read

The screenshot shows the Node.js Profiler in Chrome DevTools. The 'Sources' tab is active, displaying the file `infoRouter.js`. The 'Timeline' view shows a series of yellow bars representing function calls. A significant delay is highlighted at line 26, where `res.render("info.ejs", info);` is called, with a duration of 56.2 ms. The 'Call Stack' on the right shows the current execution context. The 'Scope' and 'Breakpoints' panels are also visible.

Con el inspect de Chrome, vemos que el proceso con el `console.log` agrega una demora de 15.1 ms, con lo cual lo vuelve menos eficiente.

Flamegraph:

Con console.log

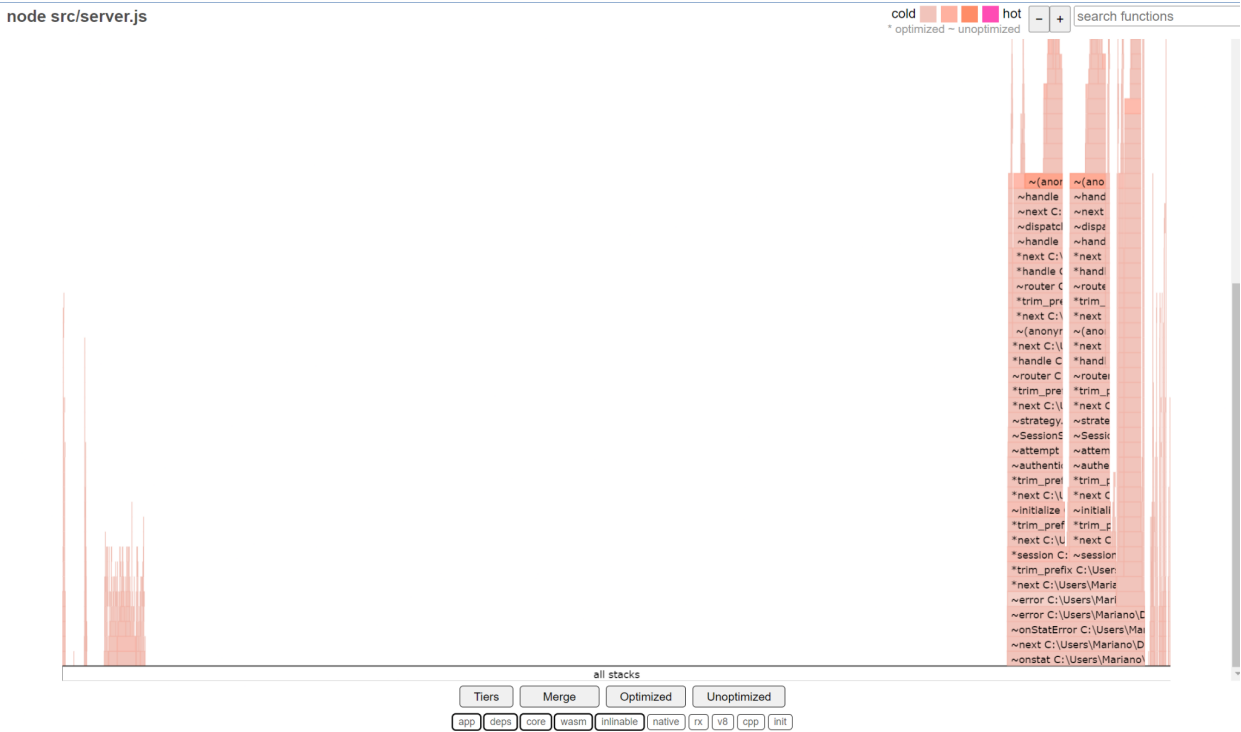

```
PS C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL> node src\benchmark.js
{"level":"info","message":"Running all benchmarks in parallel ..."}
Running 20s test @ http://localhost:8080/information
100 connections
```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	351 ms	763 ms	1210 ms	1249 ms	777.72 ms	205.48 ms	1291 ms

Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	91	91	127	200	127.45	24.84	91
Bytes/Sec	141 kB	141 kB	196 kB	310 kB	197 kB	38.4 kB	141 kB

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

3k requests in 20.23s, 3.94 MB read



Sin console.log

```

2k requests in 20.24s, 2.61 MB read
PS C:\Users\Mariano\Documents\Mis cosas\Curso Coder\Backend\Entrega SQL> node src\benchmark.js
{"level":"info","message":"Running all benchmarks in parallel ..."}
Running 20s test @ http://localhost:8080/information
100 connections

```

Stat	2.5%	50%	97.5%	99%	Avg	Stdev	Max
Latency	249 ms	370 ms	568 ms	632 ms	384.26 ms	82.85 ms	791 ms

Stat	1%	2.5%	50%	97.5%	Avg	Stdev	Min
Req/Sec	122	122	261	360	257.3	50.13	122
Bytes/Sec	188 kB	188 kB	403 kB	556 kB	397 kB	77.4 kB	188 kB

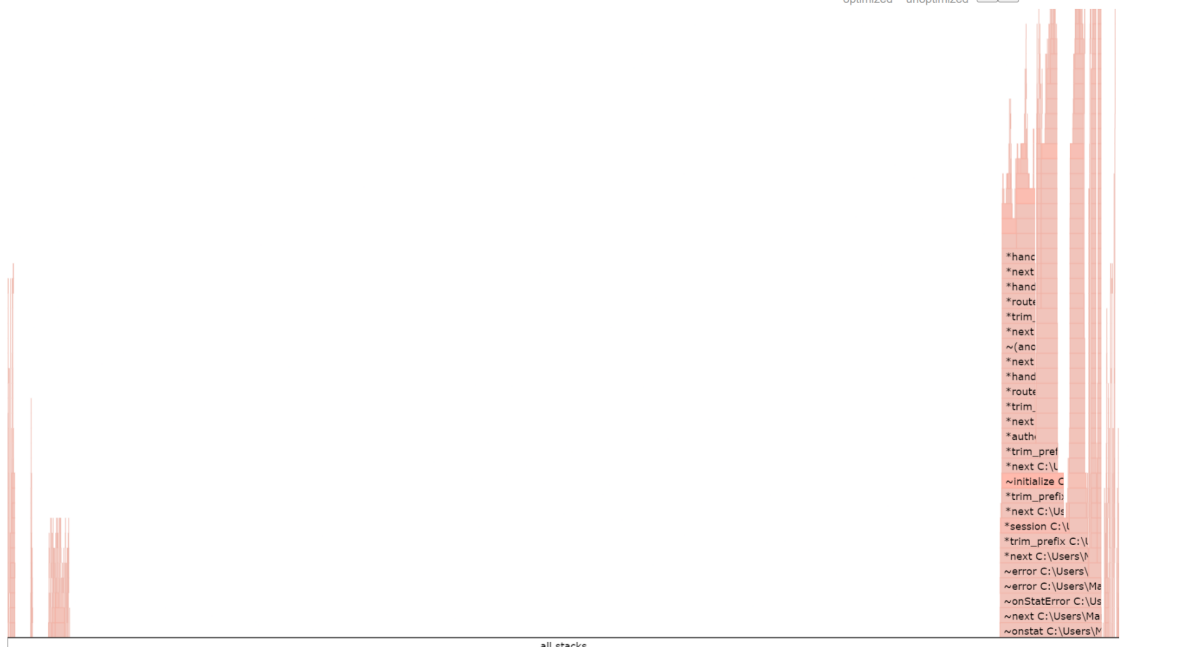
Req/Bytes counts sampled once per second.
of samples: 20

5k requests in 20.12s, 7.95 MB read

node src/server.js

cold hot
* optimized ~ unoptimized

search functions



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