



Universidad Latina De Costa Rica

Facultad de Ingenierías, Tecnologías de la Información y Comunicación

BIT 28 – Sistemas Operativos II

Laboratorio 2 - Sockets

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Fecha de Entrega:

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Laboratorio #2

```
laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents
$ git init
Initialized empty Git repository in C:/Users/laboratorio/Documents/.git/

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents (main)
$ git clone https://github.com/carlosandres-mendez/operativos.git
Cloning into 'operativos'...
remote: Enumerating objects: 363, done.
remote: Counting objects: 100% (57/57), done.
remote: Compressing objects: 100% (42/42), done.
error: RPC failed; curl 56 OpenSSL SSL_read: SSL_ERROR_SYSCALL, errno 0
error: 8799 bytes of body are still expected
fetch-pack: unexpected disconnect while reading sideband packet
fatal: early EOF
fatal: fetch-pack: invalid index-pack output

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents (main)
$ git init
Reinitialized existing Git repository in C:/Users/laboratorio/Documents/.git/

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents (main)
$ git config http.postBuffer 524288000

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents (main)
$ git clone https://github.com/carlosandres-mendez/operativos.git
Cloning into 'operativos'...
remote: Enumerating objects: 363, done.
remote: Counting objects: 100% (57/57), done.
remote: Compressing objects: 100% (42/42), done.
remote: Total 363 (delta 16), reused 52 (delta 11), pack-reused 306 (from 1)
Receiving objects: 100% (363/363), 2.40 MiB | 2.33 MiB/s, done.
Resolving deltas: 100% (133/133), done.

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents (main)
$ cd operativo
laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos (master)
$ git status
On branch master
Your branch is up to date with 'origin/master'.

nothing to commit, working tree clean

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos (master)
$ cd sockets/

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$ ls
Cliente.java DateClient.java DateServer.java HTTPServer.java index.html linux.jpg Servidor.java

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$ javac Cliente.java

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$ javac DateClient.java DateServer.java

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$ java DateServer

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$ javac DateClient.java

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$ java DateClient
HTTP/1.1 200 OK
Date: Mon, 23 May 2005 22:38:34 GMT
Content-Type: text/html; charset=UTF-8
Content-Length: 165
Last-Modified: Wed, 08 Jan 2003 23:11:55 GMT
Server: Apache/1.3.3.7 (Unix) (Red-Hat/Linux)
Accept-Ranges: bytes
Connection: close

<html>
  <head>
    <title>An Example Page</title>
  </head>
  <body>
    <p>Hello World, this is a very simple HTML document.</p>
  </body>
</html>

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)
$
```

MINGW64: c:/Users/laborator

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)

```
$ javac --release 8 HTTPServer.java
```

warning: [options] source value 8 is obsolete and will be removed in a future release

warning: [options] target value 8 is obsolete and will be removed in a future release

warning: [options] To suppress warnings about obsolete options, use -Xlint:-options.

Note: HTTPServer.java uses or overrides a deprecated API.

Note: Recompile with -Xlint:deprecation for details.

3 warnings

laboratorio@ULAT-SP-LB3-08 MINGW64 ~/Documents/operativos/sockets (master)

```
$ java HTTPServer
```

TCPServer Waiting for client on port 5000

The Client /127.0.0.1:61242 is connected

The Client /127.0.0.1:61243 is connected

The HTTP request string is

GET / HTTP/1.1

Host: localhost:5000

Connection: keep-alive

Cache-Control: max-age=0

sec-ch-ua: "Not A(Brand";v="8", "Chromium";v="132", "Google Chrome";v="132"

sec-ch-ua-mobile: ?0

sec-ch-ua-platform: "Windows"

Upgrade-Insecure-Requests: 1

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7

Sec-Fetch-Site: none

Sec-Fetch-Mode: navigate

Sec-Fetch-User: ?1

Sec-Fetch-Dest: document

Accept-Encoding: gzip, deflate, br, zstd

Accept-Language: es-ES,es;q=0.9

The HTTP request string is

GET /favicon.ico HTTP/1.1

Host: localhost:5000

Connection: keep-alive

sec-ch-ua-platform: "Windows"

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36

sec-ch-ua: "Not A(Brand";v="8", "Chromium";v="132", "Google Chrome";v="132"

sec-ch-ua-mobile: ?0

Accept: image/avif,image/webp,image/apng,image/svg+xml,image/*,*/*;q=0.8

Sec-Fetch-Site: same-origin

Sec-Fetch-Mode: no-cors

Sec-Fetch-Dest: image

Referer: http://localhost:5000/

Accept-Encoding: gzip, deflate, br, zstd

Accept-Language: es-ES,es;q=0.9

The Client /127.0.0.1:61245 is connected

The HTTP request string is

GET / HTTP/1.1

Host: localhost:5000

Connection: keep-alive

Cache-Control: max-age=0

sec-ch-ua: "Not A(Brand";v="8", "Chromium";v="132", "Google Chrome";v="132"

sec-ch-ua-mobile: ?0

sec-ch-ua-platform: "Windows"

Upgrade-Insecure-Requests: 1

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7

```
MINGW64/c/Users/laborator X + v
GET / HTTP/1.1
Host: localhost:5000
Connection: keep-alive
Cache-Control: max-age=0
sec-ch-ua: "Not A(Brand";v="8", "Chromium";v="132", "Google Chrome";v="132"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Windows"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Sec-Fetch-Site: none
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Accept-Encoding: gzip, deflate, br, zstd
Accept-Language: es-ES,es;q=0.9
The Client /127.0.0.1:61250 is connected
The HTTP request string is ....
GET / HTTP/1.1
Host: localhost:5000
Connection: keep-alive
Cache-Control: max-age=0
sec-ch-ua: "Not A(Brand";v="8", "Chromium";v="132", "Google Chrome";v="132"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Windows"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Sec-Fetch-Site: none
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Accept-Encoding: gzip, deflate, br, zstd
Accept-Language: es-ES,es;q=0.9
The Client /127.0.0.1:61252 is connected
The Client /127.0.0.1:61254 is connected
The HTTP request string is ....
GET /linux.jpg HTTP/1.1
Host: localhost:5000
Connection: keep-alive
sec-ch-ua: "Not A(Brand";v="8", "Chromium";v="132", "Google Chrome";v="132"
sec-ch-ua-mobile: ?0
sec-ch-ua-platform: "Windows"
Upgrade-Insecure-Requests: 1
User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36
Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7
Sec-Fetch-Site: none
Sec-Fetch-Mode: navigate
Sec-Fetch-User: ?1
Sec-Fetch-Dest: document
Accept-Encoding: gzip, deflate, br, zstd
Accept-Language: es-ES,es;q=0.9
java.lang.NullPointerException: Cannot invoke "String.length()" because "str" is null
    at java.base/java.util.StringTokenizer.<init>(StringTokenizer.java:199)
    at java.base/java.util.StringTokenizer.<init>(StringTokenizer.java:236)
    at HTTPServer.run(HTTPServer.java:32)
```

← → ⓘ 🌐 localhost:5000

This is the HTTP Server Home Page...

The HTTP Client request is

GET / HTTP/1.1

Host: localhost:5000

Connection: keep-alive

Cache-Control: max-age=0

sec-ch-ua: "Not A(Brand)",v="8", "Chromium",v="132", "Google Chrome",v="132"

sec-ch-ua-mobile: ?0

sec-ch-ua-platform: "Windows"

Upgrade-Insecure-Requests: 1

User-Agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML, like Gecko) Chrome/132.0.0.0 Safari/537.36

Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,image/apng,*/*;q=0.8,application/signed-exchange;v=b3;q=0.7

Sec-Fetch-Site: none

Sec-Fetch-Mode: navigate

Sec-Fetch-User: ?1

Sec-Fetch-Dest: document

Accept-Encoding: gzip, deflate, br, zstd

Accept-Language: es-ES;q=0.9

