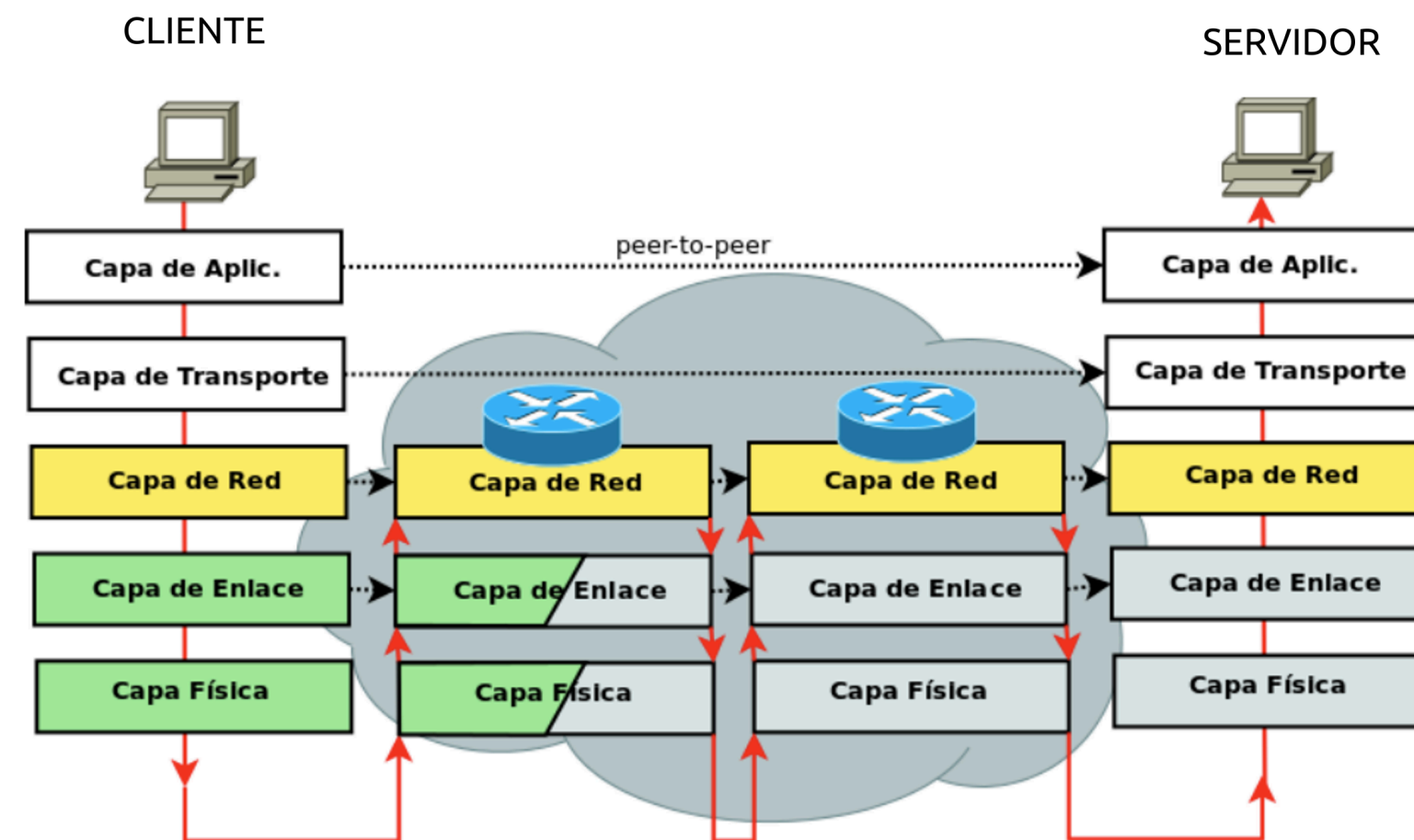


REDES

HTTP

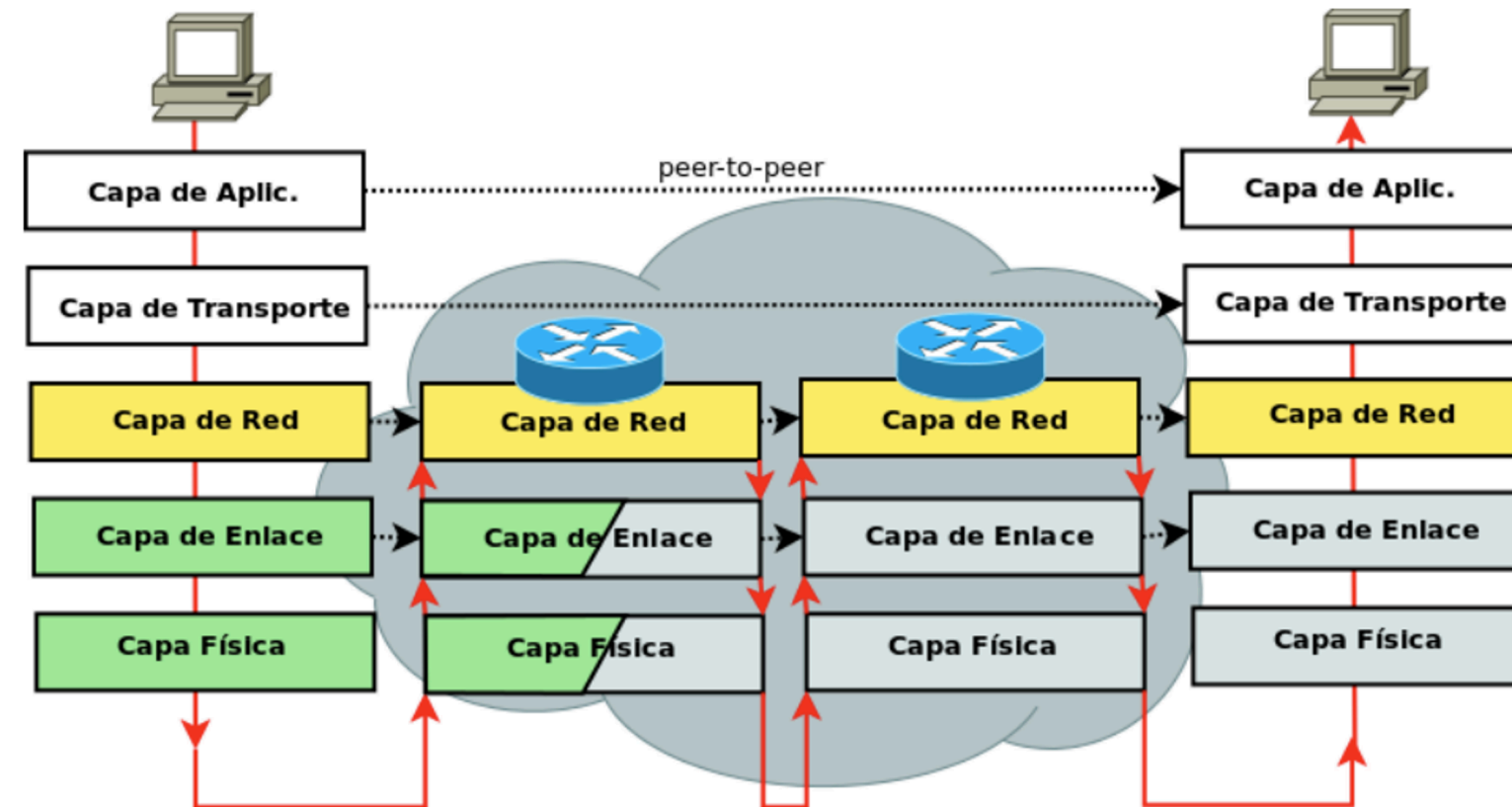
Jeremías Pretto

ARQUITECTURA CLIENTE SERVIDOR



EN HTTP?

curl://



PARTES

CLIENTE (BROWSER)

```
Request
Pretty Raw Hex
1 GET / HTTP/1.1
2 Host: www.redes.unlp.edu.ar
3 User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:123.0) Gecko/20100101 Firefox/123.0
4 Accept:
  text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate, br
7 Connection: close
8 Upgrade-Insecure-Requests: 1
9
10
```

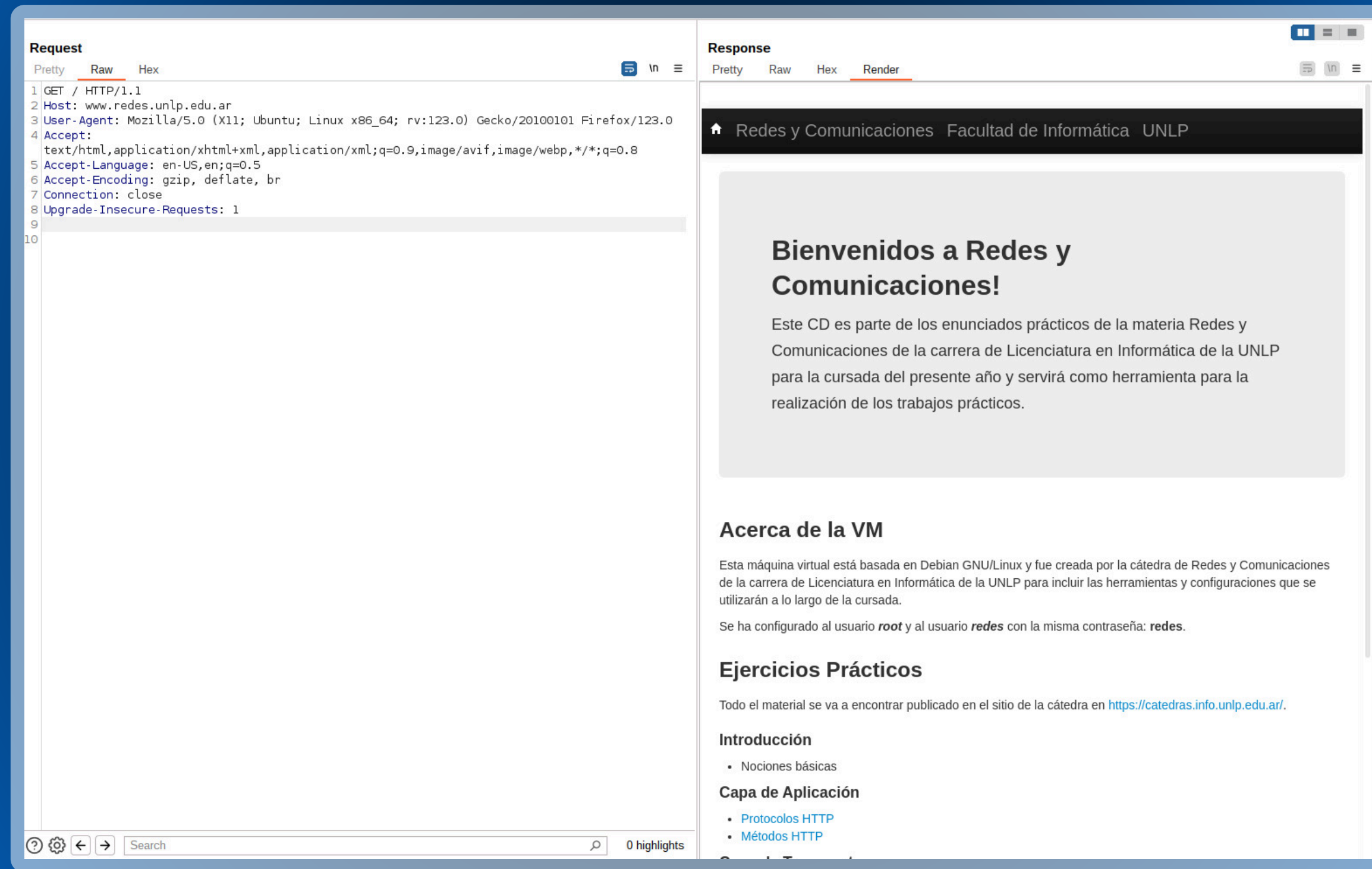
SERVIDOR WEB

```
Response
Pretty Raw Hex Render
1 HTTP/1.1 200 OK
2 Date: Thu, 04 Apr 2024 05:45:44 GMT
3 Server: Apache/2.4.56 (Unix)
4 Last-Modified: Sun, 19 Mar 2023 19:04:46 GMT
5 ETag: "1322-5f7457bd64f80"
6 Accept-Ranges: bytes
7 Content-Length: 4898
8 Connection: close
9 Content-Type: text/html
10
11 <!DOCTYPE html>
12 <html lang="en">
13   <head>
14     <meta charset="utf-8">
15     <title>
16       ...Redes y Comunicaciones...Facultad de Inform&aacute;tica...UNLP...
17     </title>
18     <meta name="viewport" content="width=device-width, initial-scale=1.0">
19     <meta name="description" content="">
20     <meta name="author" content="">
21
22     <!-- Le styles -->
23     <link href="/bootstrap/css/bootstrap.css" rel="stylesheet">
24     <link href="/css/style.css" rel="stylesheet">
25     <link href="/bootstrap/css/bootstrap-responsive.css" rel="stylesheet">
26
27     <!-- HTML5 shim, for IE6-8 support of HTML5 elements -->
28     <!--[if lt IE 9]>
29       <script src="/bootstrap/js/html5shiv.js"></script>
30     <![endif]-->
31   </head>
32   <body>
33     <div id="wrap">
34       <div class="navbar navbar-inverse navbar-fixed-top">
35         <div class="navbar-inner">
36           <div class="container">
37             <a class="brand" href="/index.html">
38               <i class="icon-home icon-white">
39             </i>
40             </a>
41             <a class="brand" href="https://catedras.info.unlp.edu.ar" target="_blank">
42               Redes y Comunicaciones
43             </a>
44             <a class="brand" href="http://www.info.unlp.edu.ar" target="_blank">
45               Facultad de Inform&aacute;tica
46             </a>
47             <a class="brand" href="http://www.unlp.edu.ar" target="_blank">
48               UNLP
49             </a>
50           </div>
51         </div>
52       </div>
53     </div>
54   </body>
55 </html>
```


PARTES

1. Cabeceras de la solicitud - Request Headers
2. Cuerpo de la solicitud - Request Body
3. Cabeceras de la respuesta - Response Headers
4. Cuerpo de la respuesta (Recurso solicitado) -
Response Body

PARTES - RENDERIZADO DE HTML



REQUERIMIENTO

Request

Pretty

Raw

Hex



```
1 GET /recurso-solicitado HTTP/1.1
2 Host: www.redes.unlp.edu.ar
3 User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:123.0) Gecko/20100101 Firefox/123.0
4
5
```

<METODO HTTP> <RECURSO SOLICITADO> <VERSION HTTP>

MÉTODOS / VERBS HTTP

<http://www.redes.unlp.edu.ar/http/metodos.html>

Browsers: FORM HTML / Javascript

Curl: Parámetro -X

USER-AGENT

Identificar el tipo de dispositivo / navegador /
aplicación que está realizando la solicitud

RESPUESTA

Response

<VERSION HTTP> <CÓDIGO DE RESPUESTA>

Pretty Raw Hex Render

```
1 HTTP/1.1 200 OK
2 Date: Thu, 04 Apr 2024 21:52:53 GMT
3 Server: Apache/2.4.56 (Unix)
4 Last-Modified: Sun, 19 Mar 2023 19:04:46 GMT
5 ETag: "760-5f7457bd64f80"
6 Accept-Ranges: bytes
7 Content-Length: 1888
8 Connection: close
9 Content-Type: text/html
10
```

CÓDIGOS DE RETORNO

2xx: Success

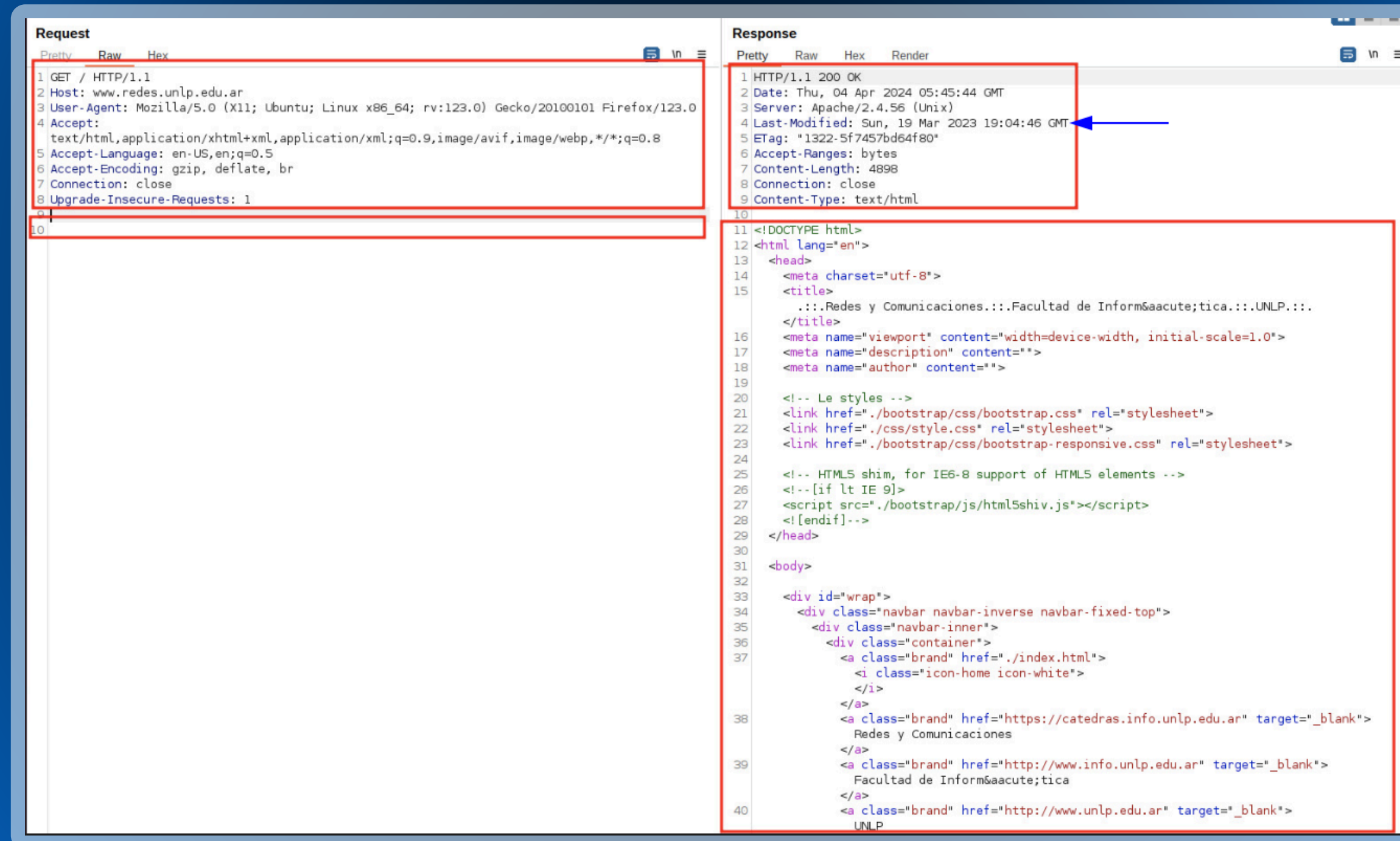
3xx: Redirección

4xx: Error del cliente

5xx: Error del servidor

CABECERAS LAST-MODIFIED / IF-MODIFIED-SINCE

Primera petición del navegador:



```
Request
Pretty Raw Hex
1 GET / HTTP/1.1
2 Host: www.redes.unlp.edu.ar
3 User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:123.0) Gecko/20100101 Firefox/123.0
4 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
5 Accept-Language: en-US,en;q=0.5
6 Accept-Encoding: gzip, deflate, br
7 Connection: close
8 Upgrade-Insecure-Requests: 1
9
10

Response
Pretty Raw Hex Render
1 HTTP/1.1 200 OK
2 Date: Thu, 04 Apr 2024 05:45:44 GMT
3 Server: Apache/2.4.56 (Unix)
4 Last-Modified: Sun, 19 Mar 2023 19:04:46 GMT
5 ETag: "1322-5f7457bd64f80"
6 Accept-Ranges: bytes
7 Content-Length: 4898
8 Connection: close
9 Content-Type: text/html
10
11 <!DOCTYPE html>
12 <html lang="en">
13 <head>
14 <meta charset="utf-8">
15 <title>
16 ...Redes y Comunicaciones...Facultad de Inform&aacute;tica...UNLP...
17 </title>
18 <meta name="viewport" content="width=device-width, initial-scale=1.0">
19 <meta name="description" content="">
20 <meta name="author" content="">
21 <!-- Le styles -->
22 <link href="/bootstrap/css/bootstrap.css" rel="stylesheet">
23 <link href="/css/style.css" rel="stylesheet">
24 <link href="/bootstrap/css/bootstrap-responsive.css" rel="stylesheet">
25 <!-- HTML5 shim, for IE6-8 support of HTML5 elements -->
26 <!--[if lt IE 9]>
27 <script src="/bootstrap/js/html5shiv.js"></script>
28 <![endif]-->
29 </head>
30 <body>
31
32 <div id="wrap">
33 <div class="navbar navbar-inverse navbar-fixed-top">
34 <div class="navbar-inner">
35 <div class="container">
36 <a class="brand" href="/index.html">
37 <i class="icon-home icon-white">
38 </i>
39 </a>
40 <a class="brand" href="https://catedras.info.unlp.edu.ar" target="_blank">
41 Redes y Comunicaciones
42 </a>
43 <a class="brand" href="http://www.info.unlp.edu.ar" target="_blank">
44 Facultad de Inform&aacute;tica
45 </a>
46 <a class="brand" href="http://www.unlp.edu.ar" target="_blank">
47 UNLP
48 </a>
49 </div>
50 </div>
51 </div>
52 </div>
53 </body>
54 </html>
```


LAST-MODIFIED / IF-MODIFIED-SINCE

Segunda petición del navegador:

The screenshot displays the network tab of a web browser's developer tools, showing an HTTP request and its corresponding response.

Request:

- 1 GET / HTTP/1.1
- 2 Host: www.redes.unlp.edu.ar
- 3 User-Agent: Mozilla/5.0 (X11; Ubuntu; Linux x86_64; rv:123.0) Gecko/20100101 Firefox/123.0
- 4 Accept: text/html,application/xhtml+xml,application/xml;q=0.9,image/avif,image/webp,*/*;q=0.8
- 5 Accept-Language: en-US,en;q=0.5
- 6 Accept-Encoding: gzip, deflate, br
- 7 Connection: close
- 8 Upgrade-Insecure-Requests: 1
- 9 If-Modified-Since: Sun, 19 Mar 2023 19:04:46 GMT ←

Response:

- 1 HTTP/1.1 304 Not Modified
- 2 Date: Thu, 04 Apr 2024 05:48:24 GMT
- 3 Server: Apache/2.4.56 (Unix)
- 4 Last-Modified: Sun, 19 Mar 2023 19:04:46 GMT
- 5 ETag: "1322-5f7457bd64f80"
- 6 Accept-Ranges: bytes
- 7 Connection: close

The response status "304 Not Modified" is highlighted with a red box. The request header "If-Modified-Since: Sun, 19 Mar 2023 19:04:46 GMT" is also highlighted with a blue arrow pointing to it.

LAST-MODIFIED / IF-MODIFIED-SINCE

Como el recurso no ha sido modificado desde la fecha enviada en "If-Modified-Since", el servidor responde sólo con las cabeceras sin volver a enviar el recurso, con un código de respuesta 304 Not Modified.

El navegador al recibir el 304 carga el recurso de la caché local.