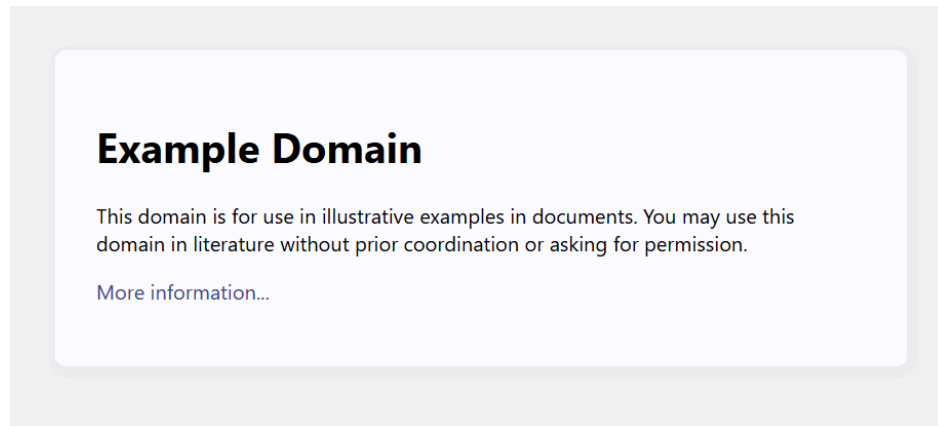
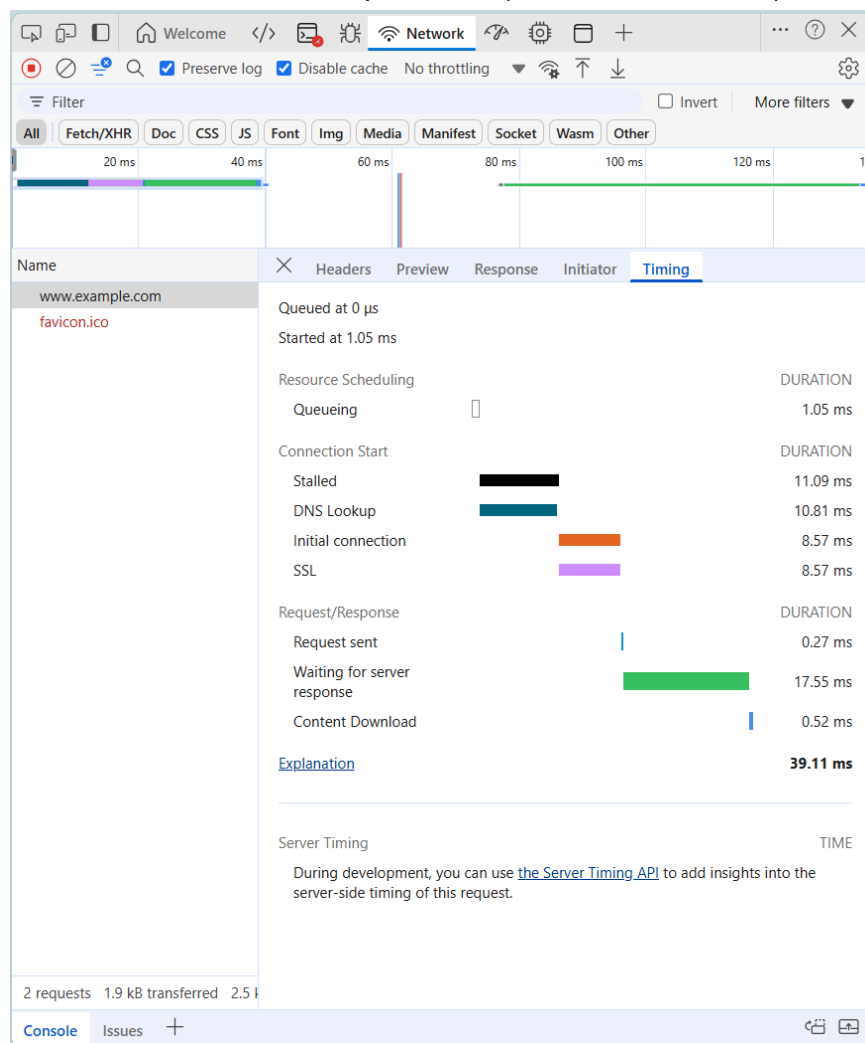


Lab Manual Part A

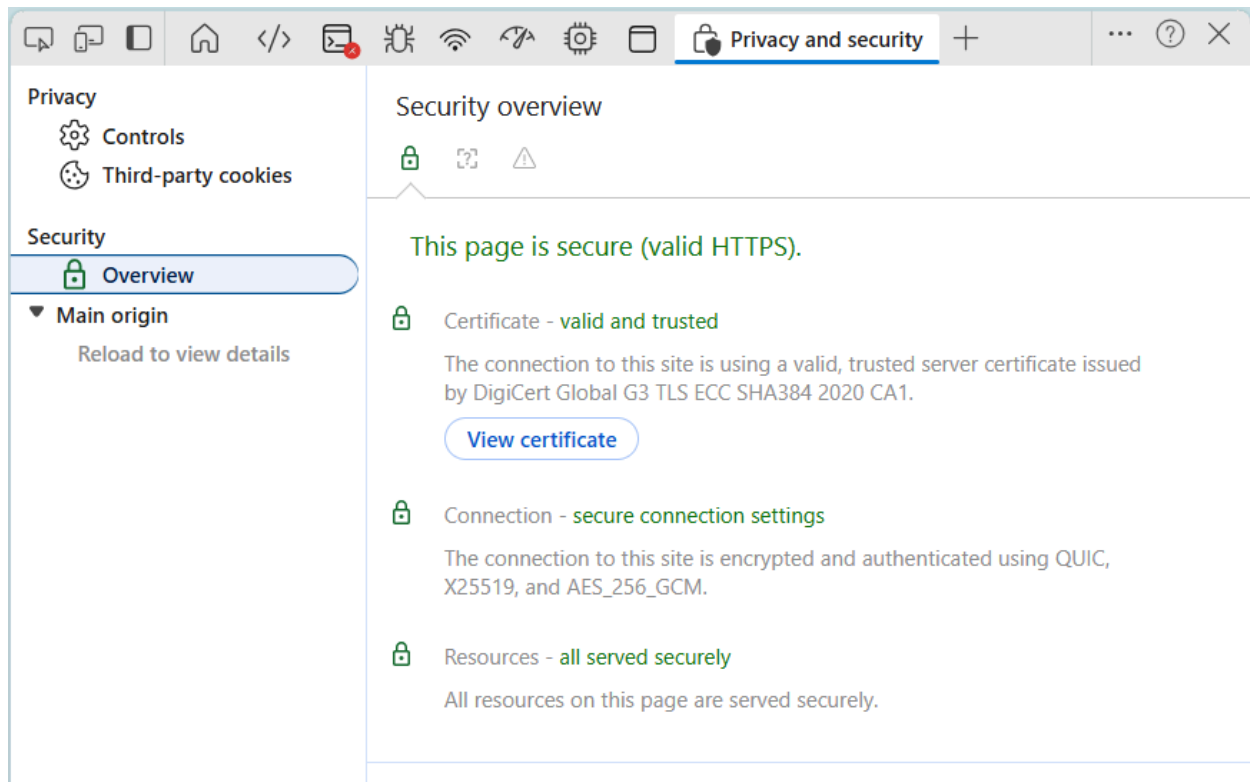
Scene 1 — You (the Client) enter the web



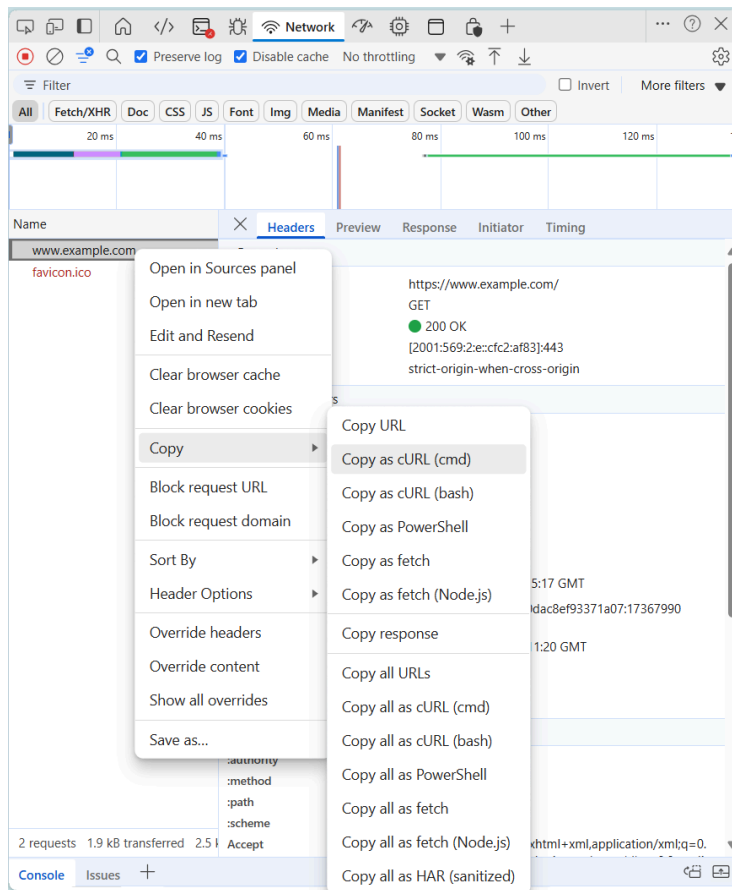
Scene 2 — “Where is example.com?” (DNS & first contacts)



Scene 3 — “Knock, knock” (TCP + TLS)



Scene 4 — “May I have the page?” (HTTP request)



curl

```
^"https://www.example.com/^" ^
```

```
-H ^"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^" ^
```

```
-H ^"accept-language: en-US,en;q=0.9^" ^
```

```
-H ^"cache-control: no-cache^" ^
```

```
-H ^"pragma: no-cache^" ^
```

```
-H ^"priority: u=0, i^" ^
```

```
-H ^"sec-ch-ua: ^\"Chromium^\";v=^\"140^\", ^\"Not=A?Brand^\";v=^\"24^\",  
^\"Microsoft Edge^\";v=^\"140^\"^" ^
```

```
-H ^"sec-ch-ua-mobile: ?0^" ^
```

```
-H ^"sec-ch-ua-platform: ^\"Windows^\"^" ^
```

```
-H ^"sec-fetch-dest: document^" ^
```

```
-H ^"sec-fetch-mode: navigate^" ^
```

```
-H ^"sec-fetch-site: none^" ^
```

```
-H ^"sec-fetch-user: ?1^" ^
```

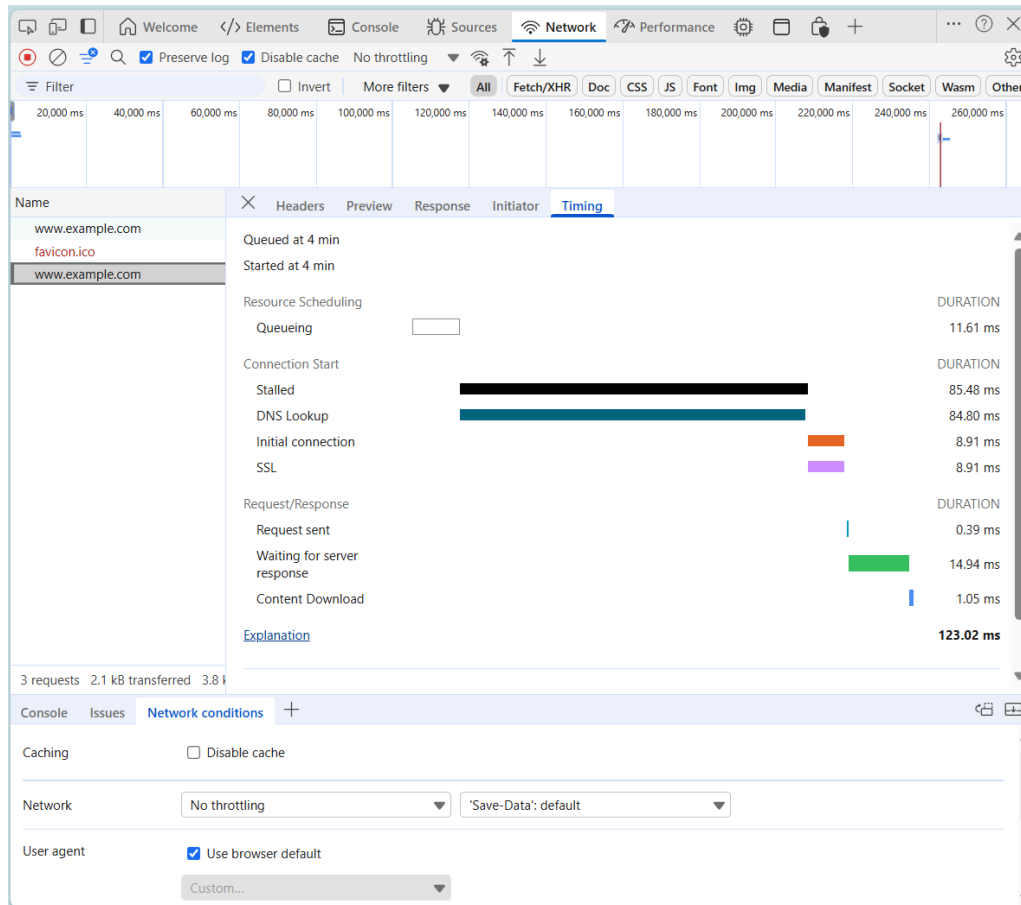
```
-H ^"upgrade-insecure-requests: 1^" ^
```

```
-H ^"user-agent: Mozilla/5.0 (Windows NT 10.0; Win64; x64) AppleWebKit/537.36 (KHTML,  
like Gecko) Chrome/140.0.0.0 Safari/537.36 Edg/140.0.0.0^"
```

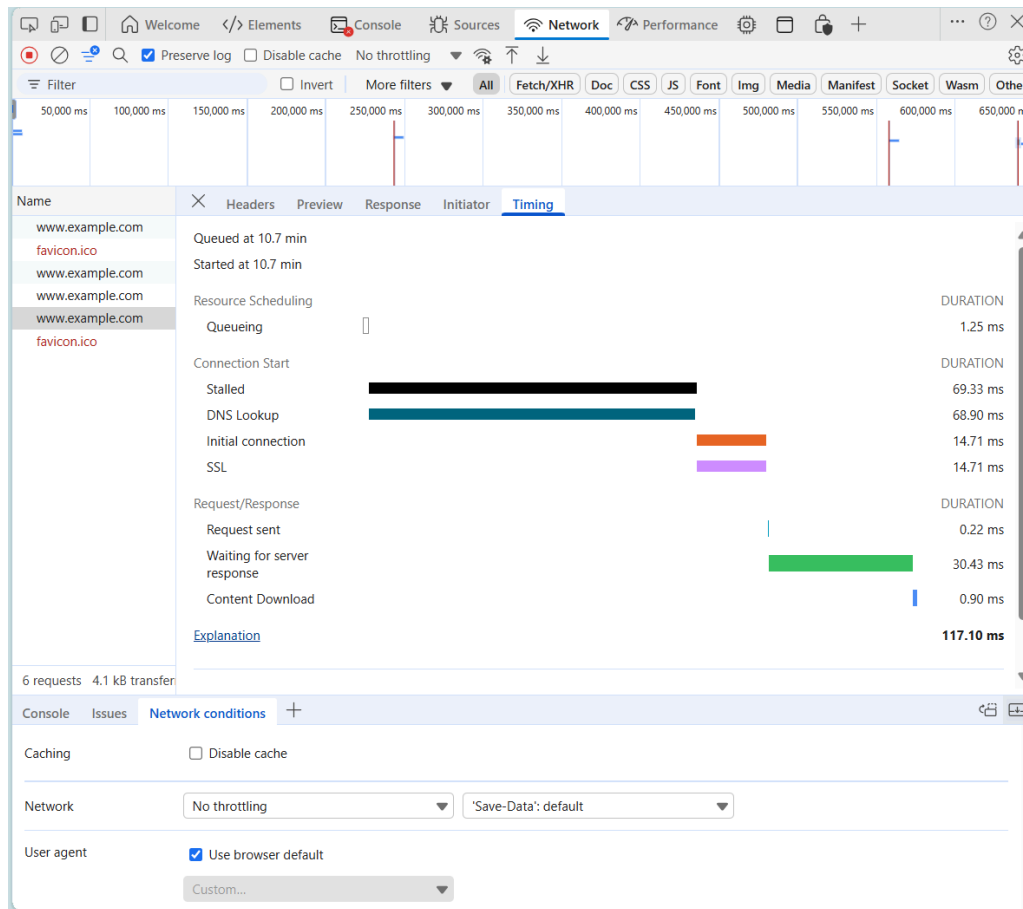
Scene 5 — “Here you go” (HTTP response)

```
← ↻ ⓘ view-source:https://www.example.com
line wrap ☐
1 <!doctype html>
2 <html>
3 <head>
4   <title>Example Domain</title>
5
6   <meta charset="utf-8" />
7   <meta http-equiv="Content-type" content="text/html; charset=utf-8" />
8   <meta name="viewport" content="width=device-width, initial-scale=1" />
9   <style type="text/css">
10    body {
11      background-color: #f0f0f2;
12      margin: 0;
13      padding: 0;
14      font-family: -apple-system, system-ui, BlinkMacSystemFont, "Segoe UI", "Open Sans", "Helvetica Neue", Helvetica, Arial, sans-serif;
15    }
16
17    div {
18      width: 600px;
19      margin: 5em auto;
20      padding: 2em;
21      background-color: #fdfdff;
22      border-radius: 0.5em;
23      box-shadow: 2px 3px 7px 2px rgba(0,0,0,0.02);
24    }
25    a:link, a:visited {
26      color: #38488f;
27      text-decoration: none;
28    }
29    @media (max-width: 700px) {
30      div {
31        margin: 0 auto;
32        width: auto;
33      }
34    }
35  </style>
36 </head>
37
38 <body>
39 <div>
40   <h1>Example Domain</h1>
41   <p>This domain is for use in illustrative examples in documents. You may use this
42   domain in literature without prior coordination or asking for permission.</p>
43   <p><a href="https://www.iana.org/domains/example">More information...</a></p>
44 </div>
45 </body>
46 </html>
47
```

Scene 6 — “Paint the picture” (Rendering pipeline)



Scene 7 — “I remember you” (Browser caching)



Scene 8 — “Signals and meanings” (Protocols & versions)

The screenshot shows the Chrome DevTools Network tab with a list of requests. The table below summarizes the data shown in the screenshot:

Name	Status	Protocol	Type	Initiator	Size	Time	Priority	Fulfilled by
www.example.com	200	h2	document	Other	841 B	44 ms	Highest	
favicon.ico	404	h3	text/html	Other	1.3 kB	230 ms	High	
www.example.com	304	h2	document	Other	12 B	111 ms	Highest	
www.example.com	304	h2	document	Other	12 B	131 ms	Highest	
www.example.com	200	h3	document	Other	669 B	116 ms	Highest	
favicon.ico	404	h3	text/html	Other	1.3 kB	111 ms	High	
www.example.com	304	h3	document	Other	12 B	118 ms	Highest	

Scene 9 — “When things go wrong” (Status codes & errors)

