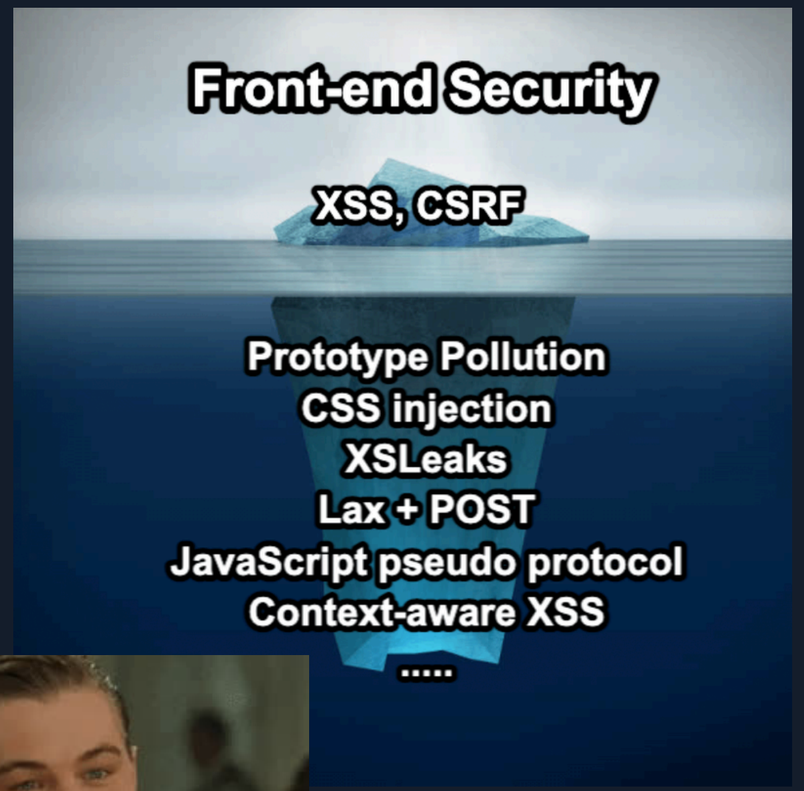
Breaking the Frontend - Client Side Hacking 101

Jesus Lujan (Aka. s4yhii)



Hack The Box Meetup:
Lima, PE.

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Contenido

Introducción al Hacking Client-Side

1. Qué es client-side?
2. Web Architecture + Browser Security Model
3. Casos reales
    - (Tampering javascript, Local Storage attack, Cookie attacks, XSS, Postmessage, Source Mapping...)

Devtools for hacking

Devtools 101: **Elements, Console, Sources, Network, Application**

Reverseando Javascript en el navegador

1. Source Mapping: Revelando código original
2. Lazy Loading (Carga diferida) de Javascript
3. Desofuscación de archivos JS

Vulnerabilidades Client-Side

1. Habilitando funciones restringidas
2. Sobreecribir funciones y redefinir eventos
3. Usando Breakpoints para debuggear JS
4. Proximamente... (CSPT, CSTI)

CTF Time (2 Vip+ winners)

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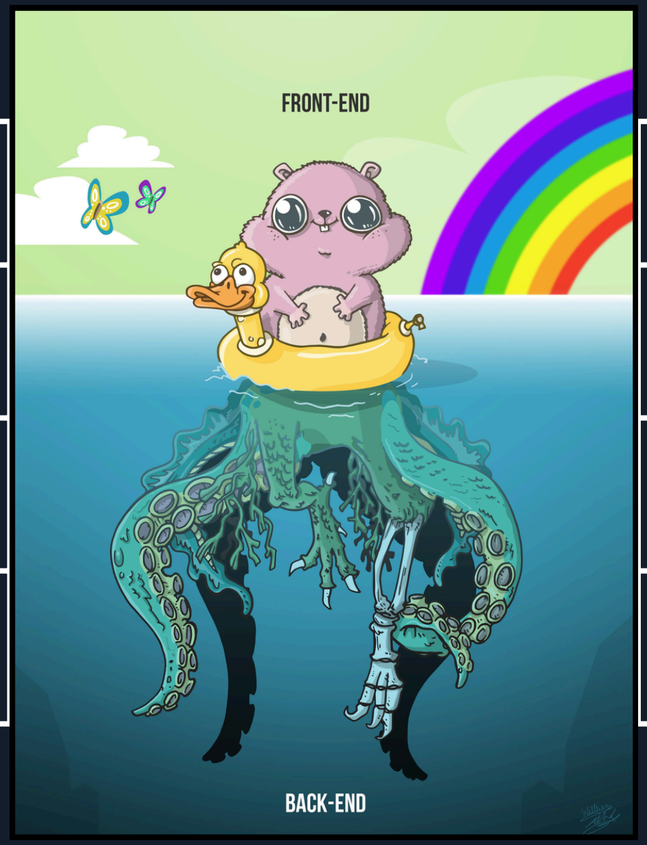
Qué es client side?

Client-Side	Server-Side
Se ejecuta en el navegador (HTML, CSS, JS)	Se ejecuta en el servidor (PHP, Python, Node)
Modificable por los usuarios (DevTools)	No es visible por los usuarios (Lógica de la app)
Ejemplos: Botones como click, Validaciones en formularios	Ejemplo: Consultas a la bd, autenticación?



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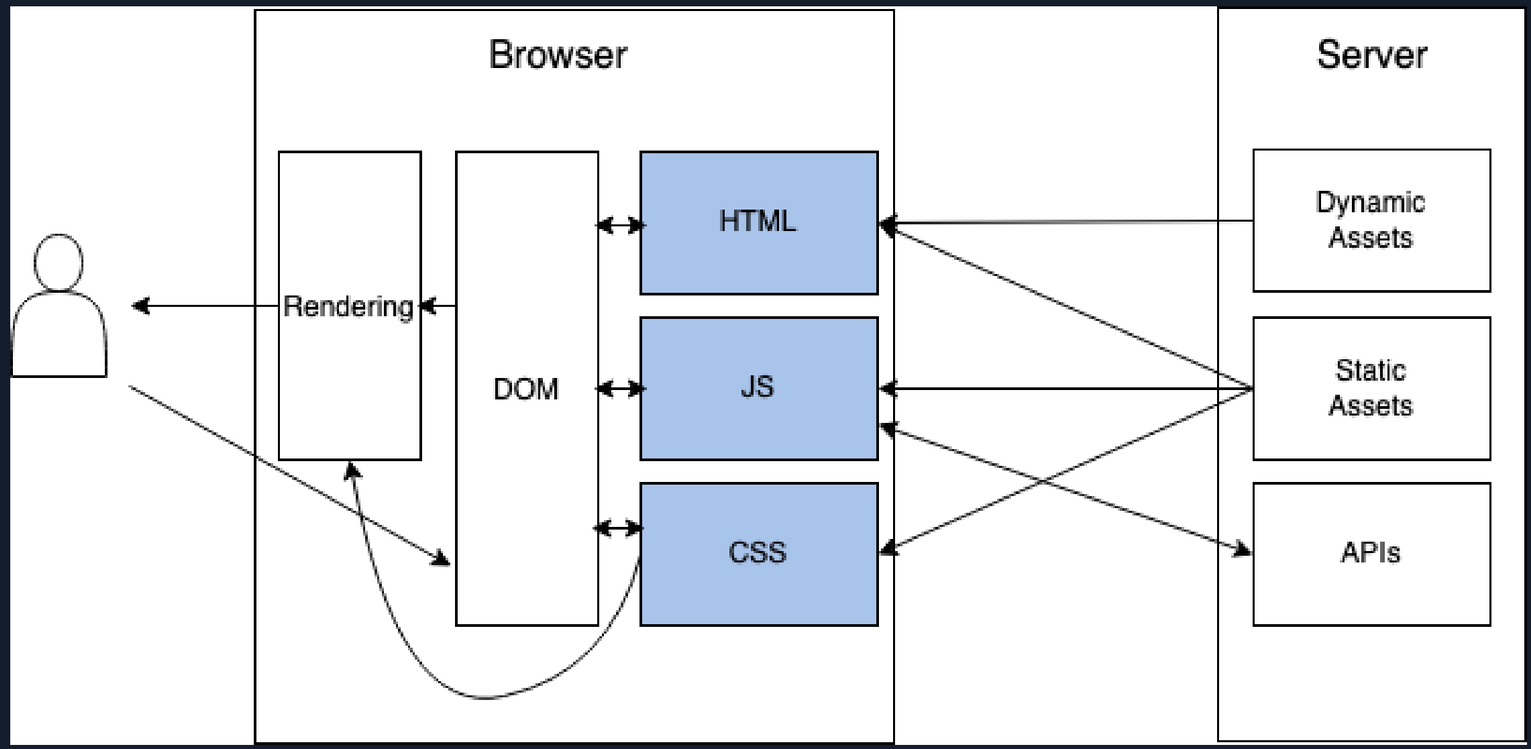
Web Architecture



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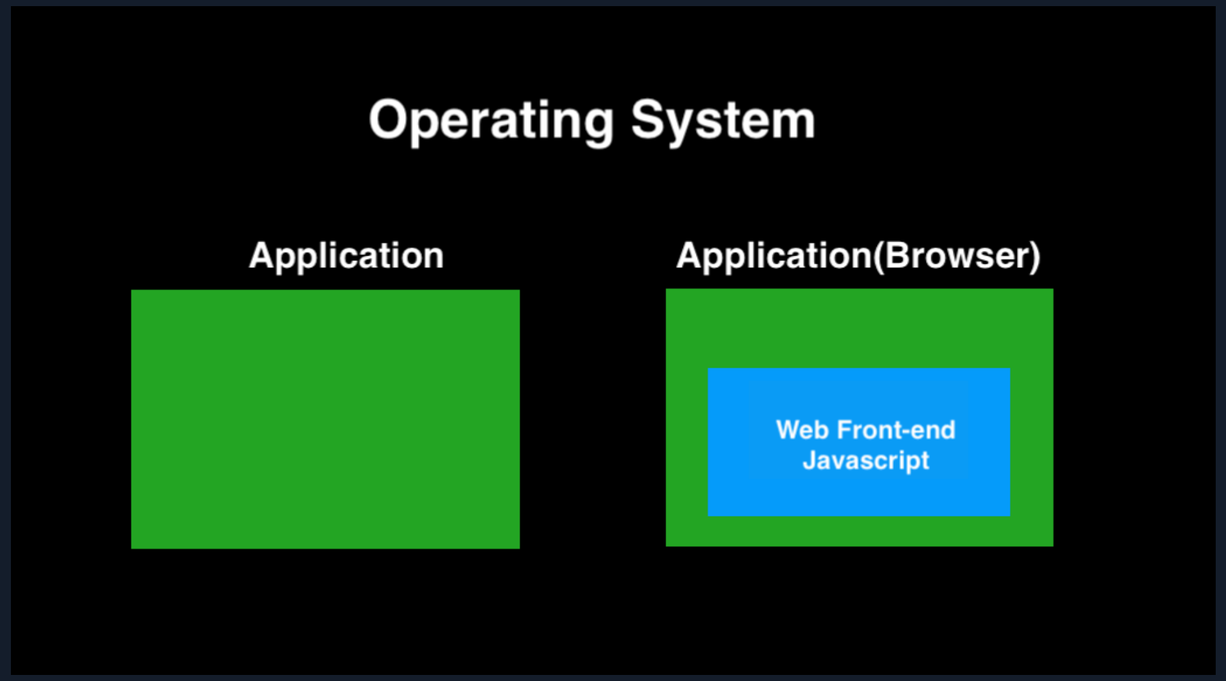
Browser Security Model



Limitaciones del navegador

- Archivos locales
- APIs del sistema
- Contenidos de otras páginas web

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Importante??

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Client-side RCE via symlink following in Google Web Designer for macOS/Linux: CVE-2025-1079

Using YouTube to steal your files

Hacking Starbucks and Accessing Nearly 100 Million Customer Records

Sat Jun 20 2020

Links de referencia al final

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Devtools for hacking 101

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- Panel Elements:

Modificar el DOM (editar formularios, botones, campos ocultos)

- Panel Console:

Ejecutar JavaScript en tiempo real, sobreescribir variables, usar debugger

- Panel Network:

Interceptar llamadas a APIs, modificar peticiones fetch

- Panel Application:

Manipular cookies, localStorage, sessionStorage, IndexedDB

- Panel Sources:

Depurar la ejecución de JavaScript, establecer puntos de interrupción (breakpoints)

Lab URL : http://localhost:3000

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(10 min)

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Ingresa a:
http://spooky.bugcrowd.zw.ink/klown.cfm

Y enviame Screenshoot por Disc del Secret password

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Reverseando JS

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Source Mapping, que es?

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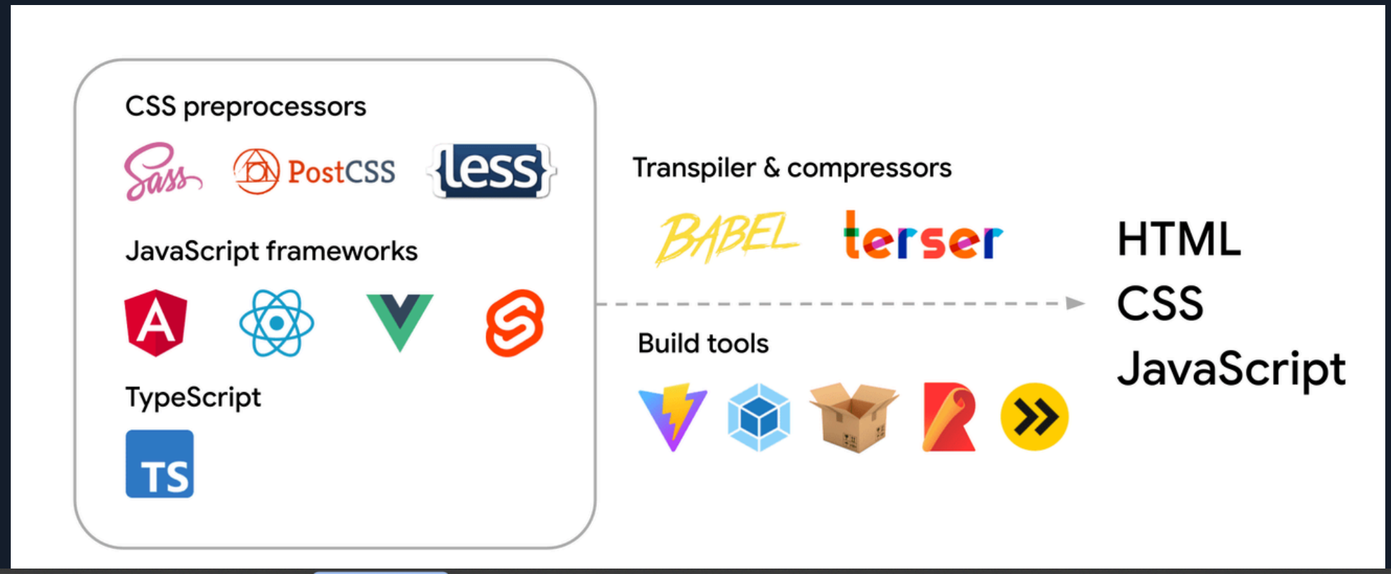
Herramienta que permite debugear código más facil.



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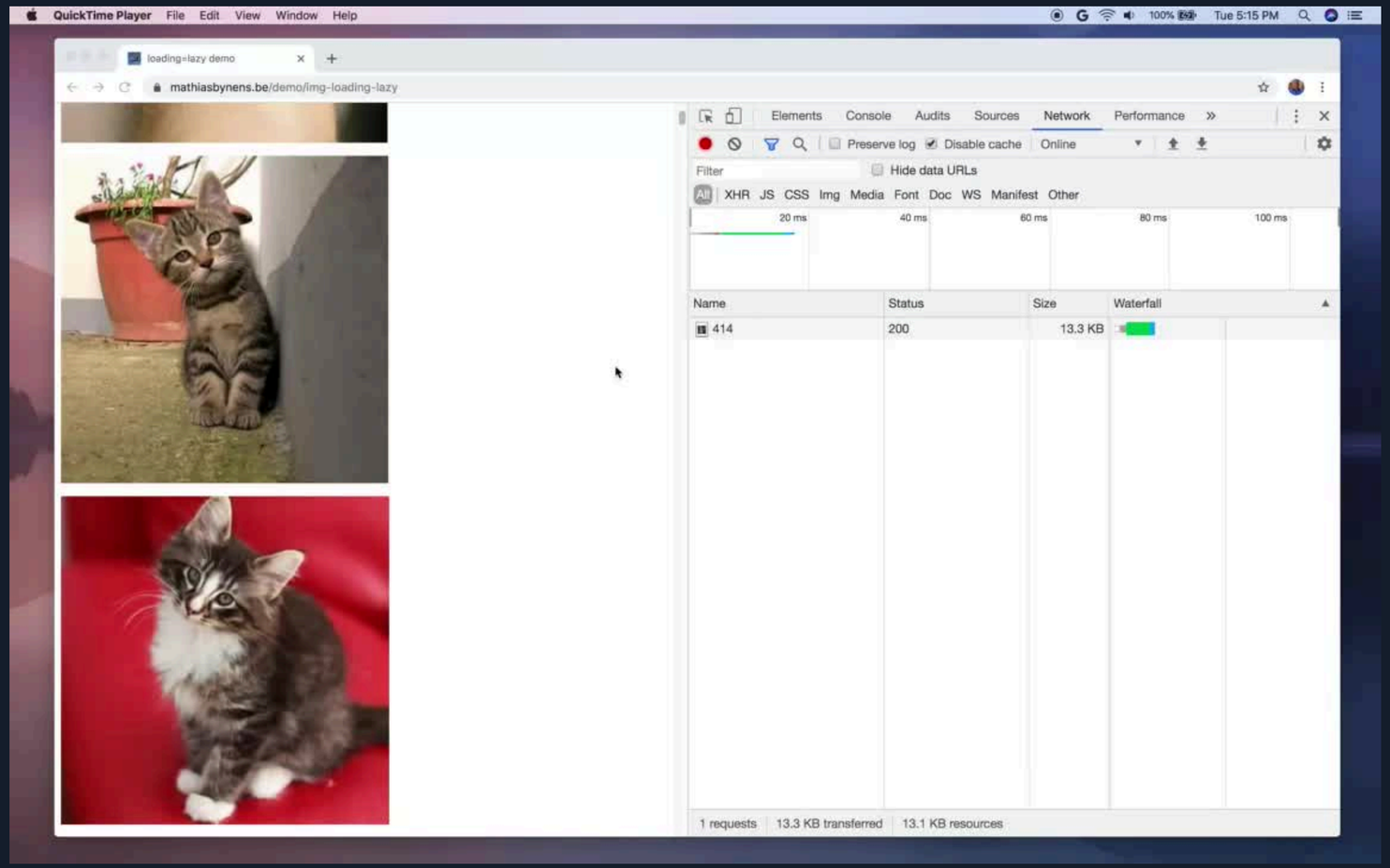
Lazy Loading o Carga diferida



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Vulnerabilidades Client Side 101

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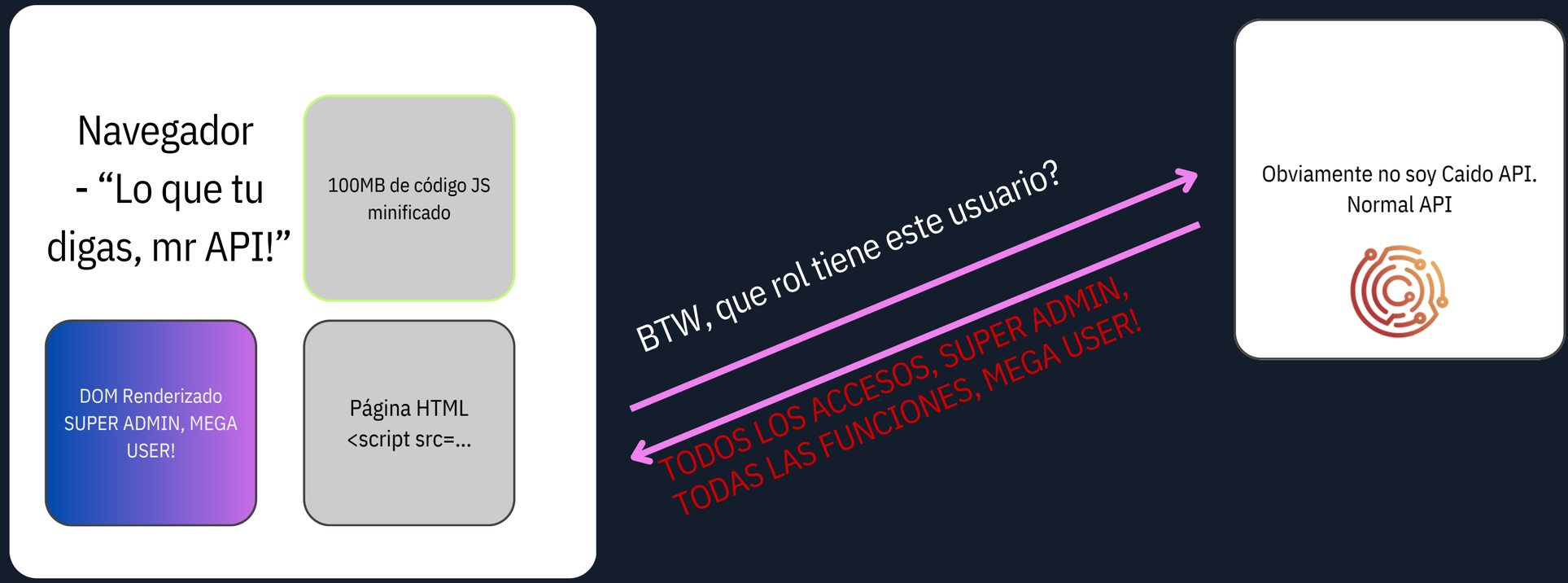
Lógica Client Side



if(kl.mE===w.tF){0,w,HY)(Z)]

if(user.role===”MEGA_ADMIN”){Enseña las funciones ocultas del UI}

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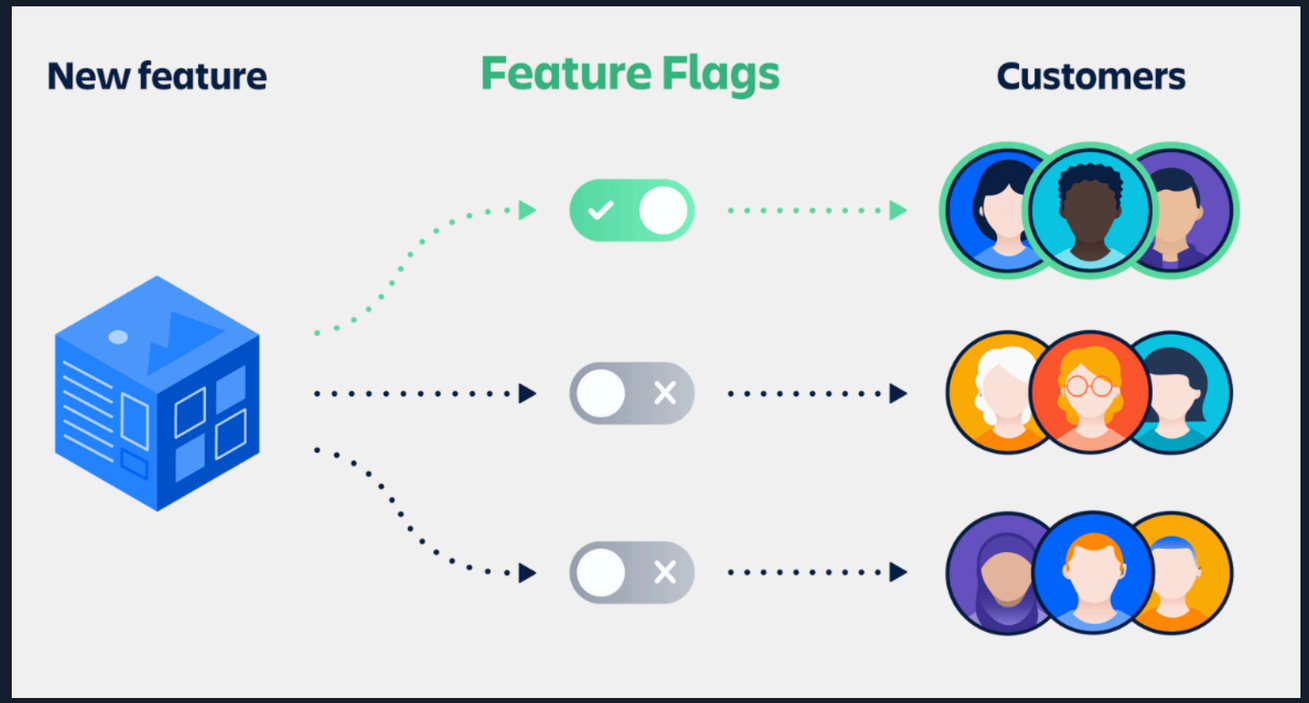
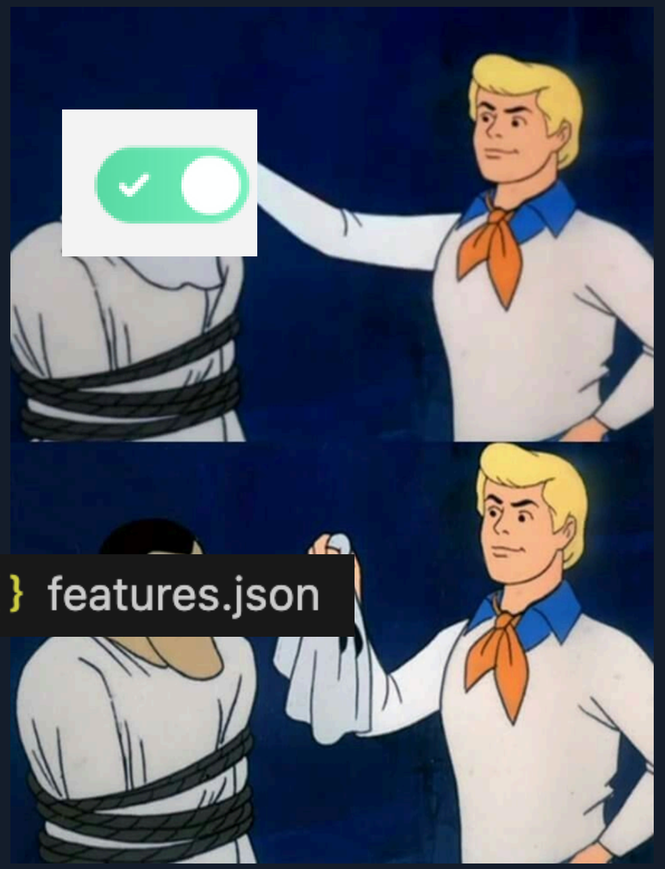
Habilitando Feature Flags





{} features.json {"enableNewHelpDeskBot":~~false~~"true"}

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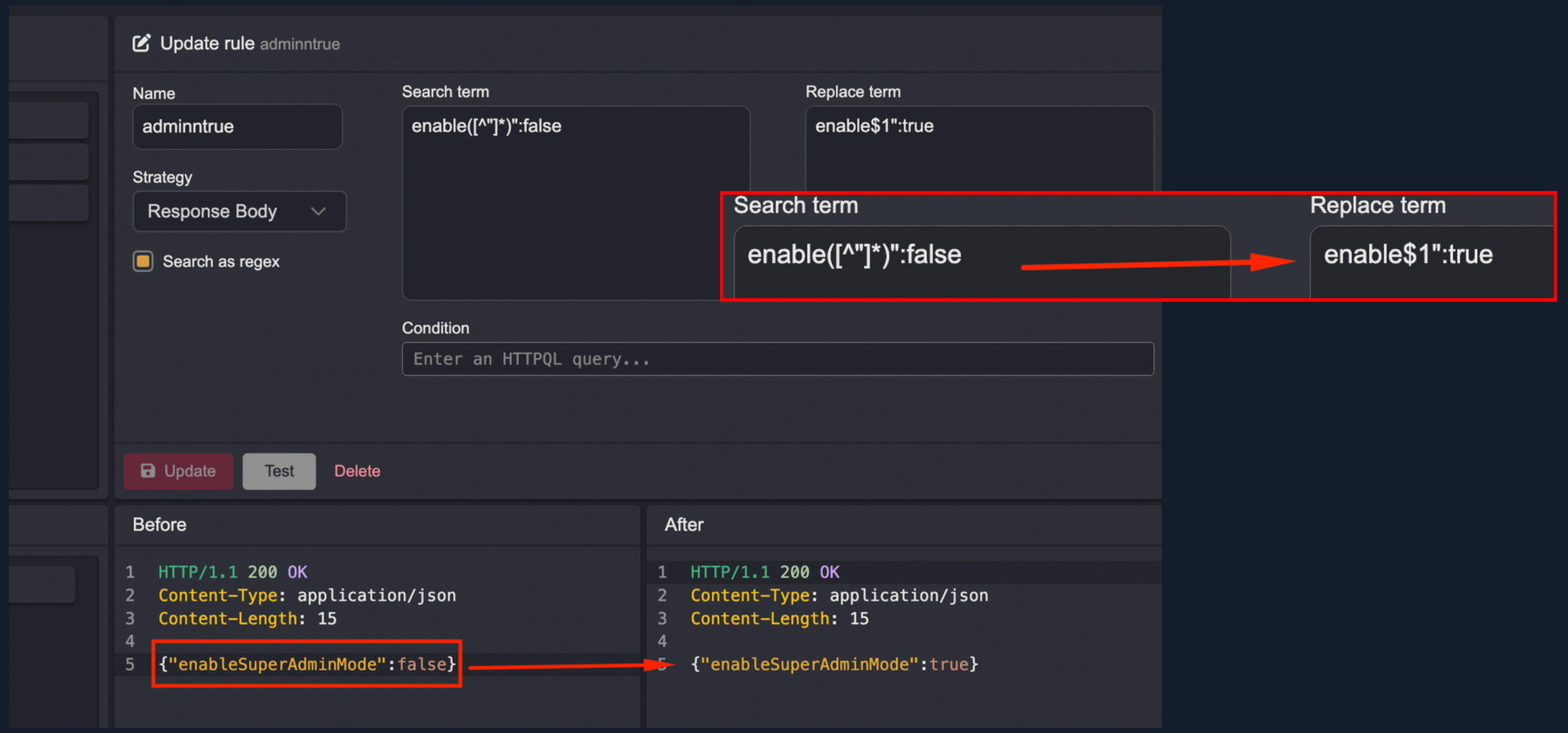
Bienvenido Match & Replace



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Sobreescribiendo funciones

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Usando breakpoints

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Accede a http://localhost:80 y obtén la flag.

Premio: HTB voucher vip+

Hint: Existe + de una solución

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Recursos 403

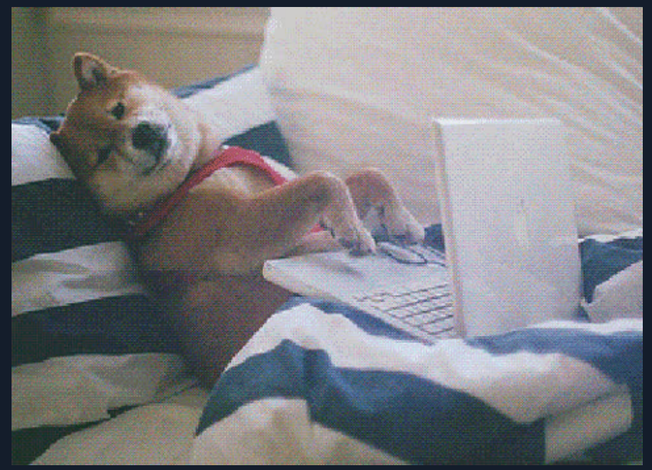
Must!: https://aszx87410.github.io/beyond-xss/en/

Links blogs interesantes

- https://balintmagyar.com/articles/google-web-designer-symlink-client-side-rce-cve-2025-1079
- https://lyra.horse/blog/2024/09/using-youtube-to-steal-your-files/
- https://samcurry.net/hacking-starbucks
- https://web.dev/articles/browser-level-image-lazy-loading

Links Laboratorios para prácticar

- https://verified.capitalone.com/
- http://spooky.bugcrowd.zw.ink/klown.cfm



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Proximamente

- CSPT (Client Side Path Traversal ../../si, pero en el cliente)
- Prototype Pollution
- DOM Clobbering
- DOM Logger ++
- Json Injection

O quieren ver lado del servidor

- SQLi
- OS Command Injection
- IDORs, etc ...

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Conectemos.

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