

WEB PERFORMANCE

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ACCENTURE



Drupal Camp
Costa Rica 2021

AGENDA



Entendiendo el
performance



Web Performance
HTTP2



Service Workers



Google Core WEB
Vitals

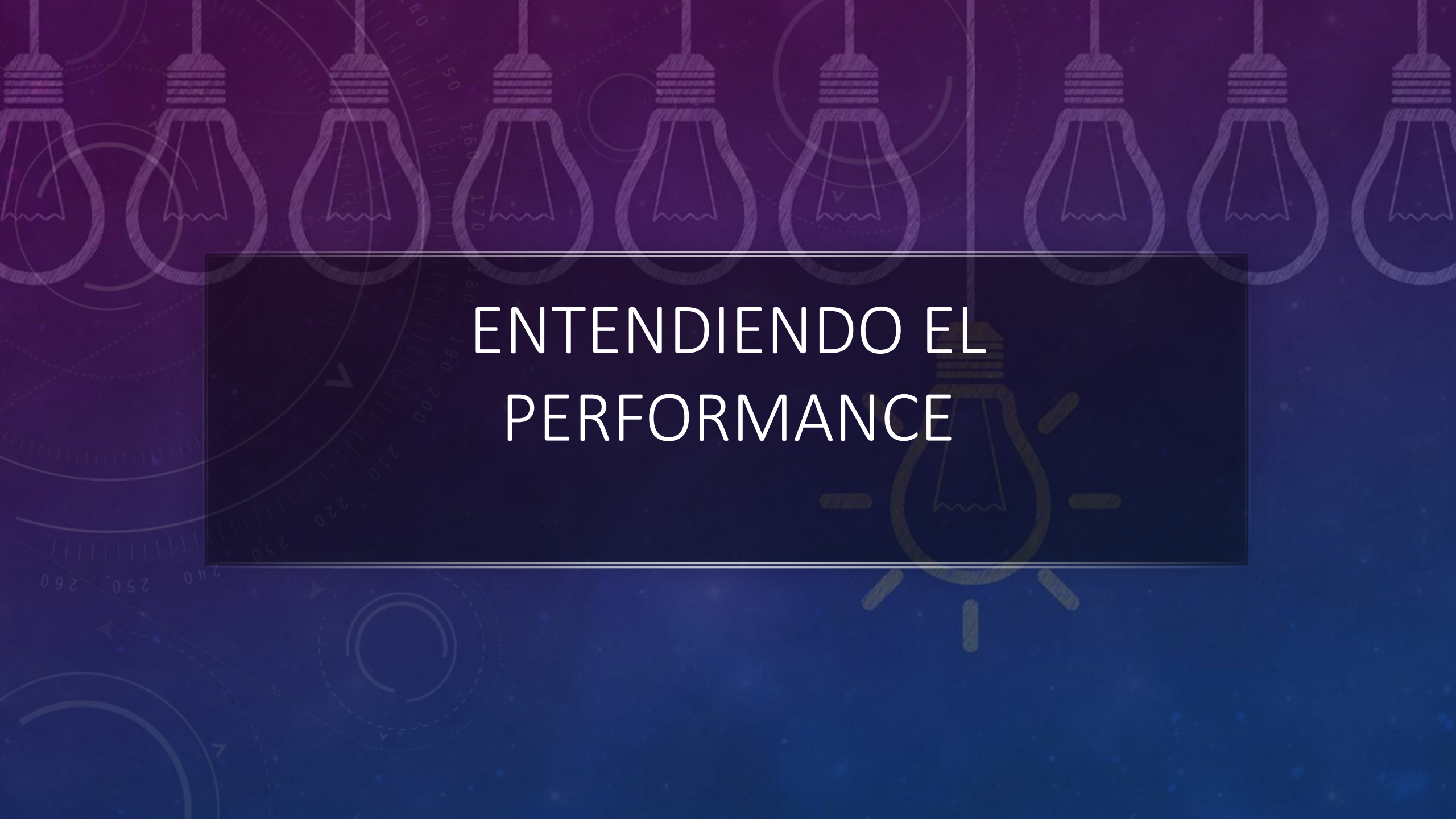


Módulos de
Drupal

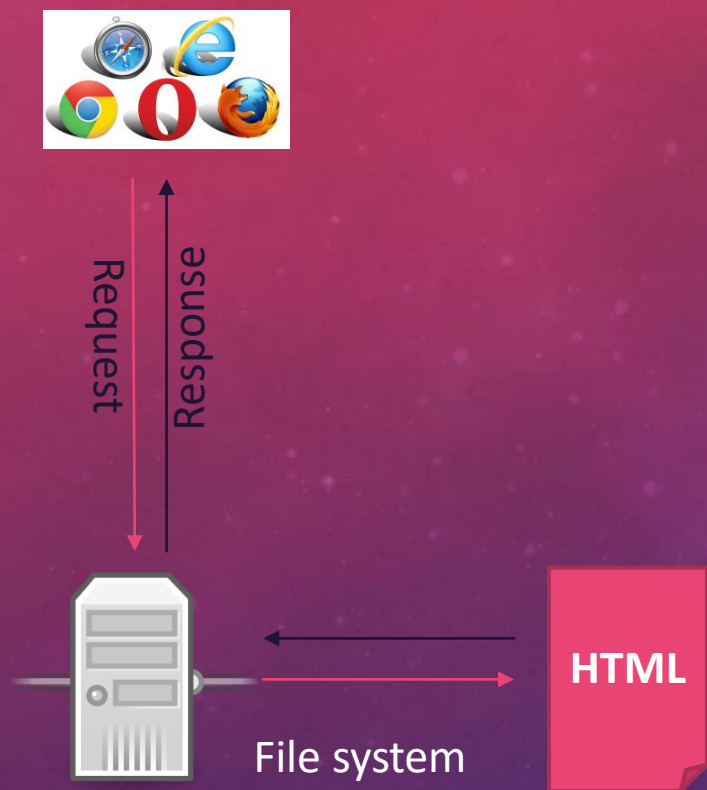


Tips de
programación

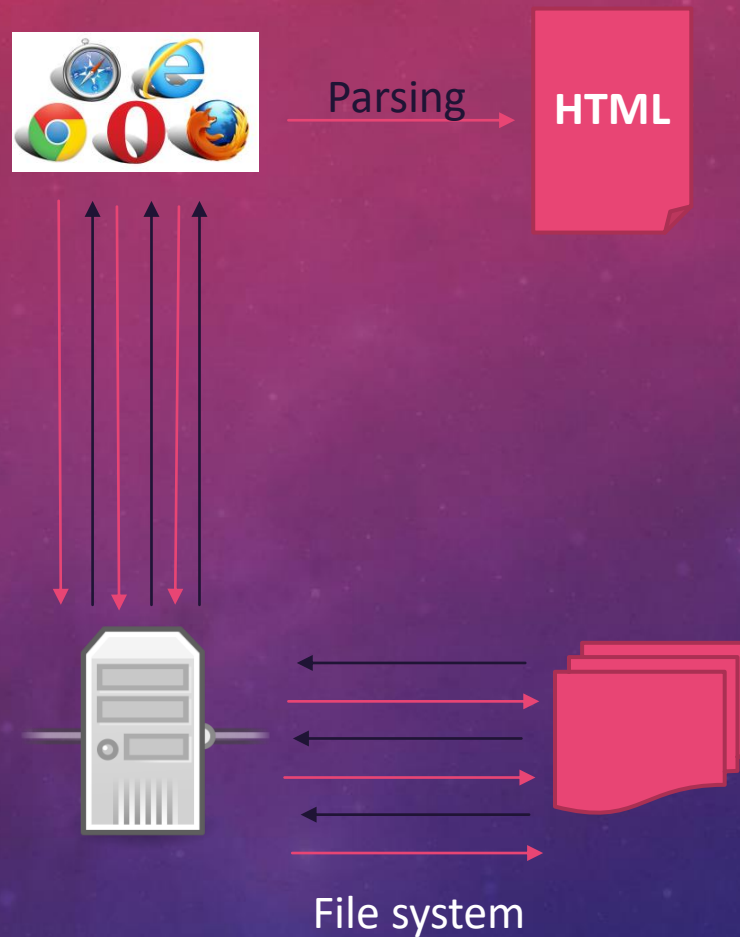


The background is a dark blue gradient with a series of light bulbs hanging from the top. The bulbs are drawn in a simple, sketchy style. Behind the bulbs and text are faint, light-colored technical diagrams, including circular gauges with numerical scales (e.g., 40, 150, 160, 170, 180, 190, 200, 210, 220, 230, 240, 250, 260) and various geometric shapes like circles and lines. A large, faint light bulb is also visible behind the text box, with some lines radiating from its base.

ENTENDIENDO EL PERFORMANCE



Initial request

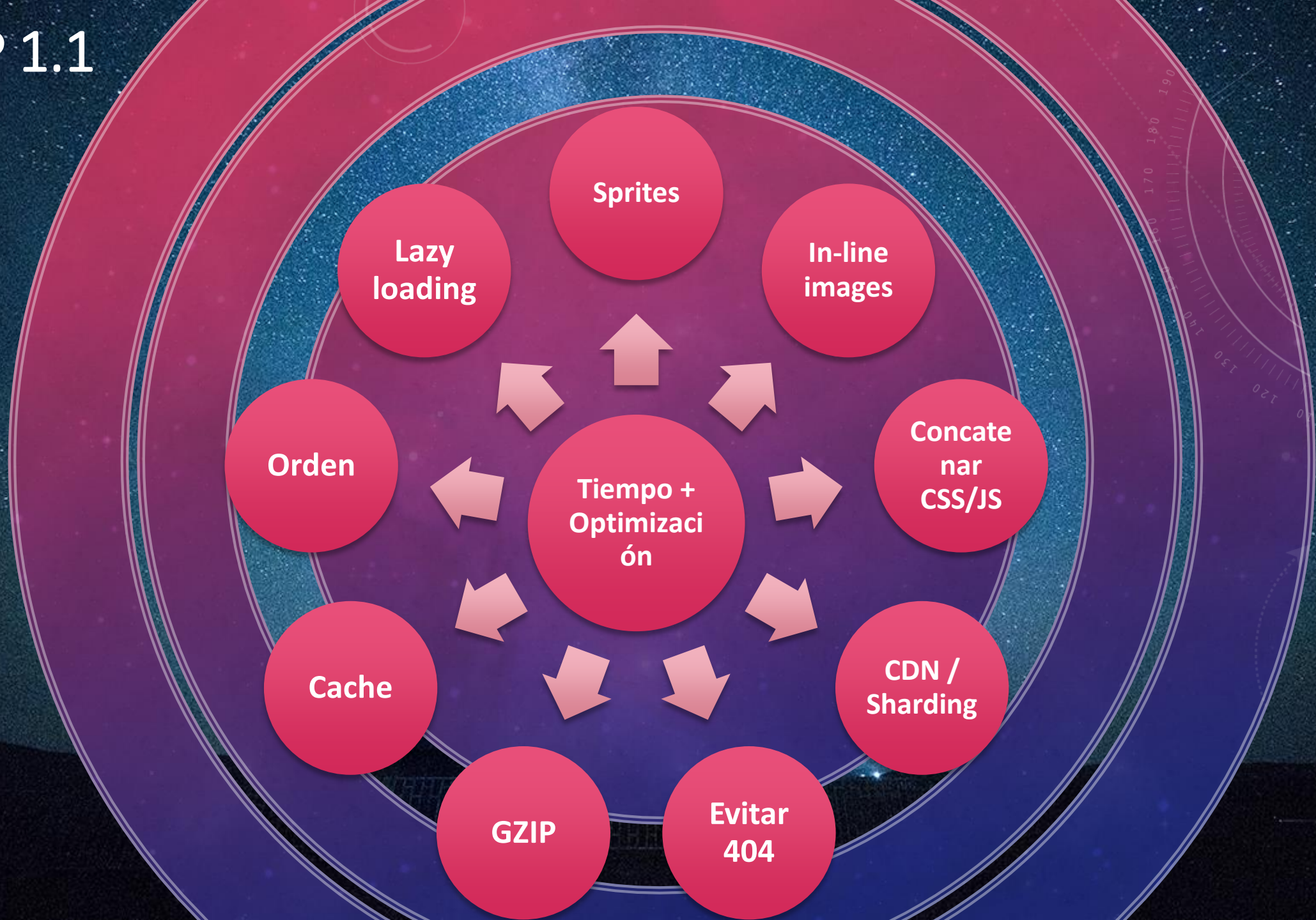


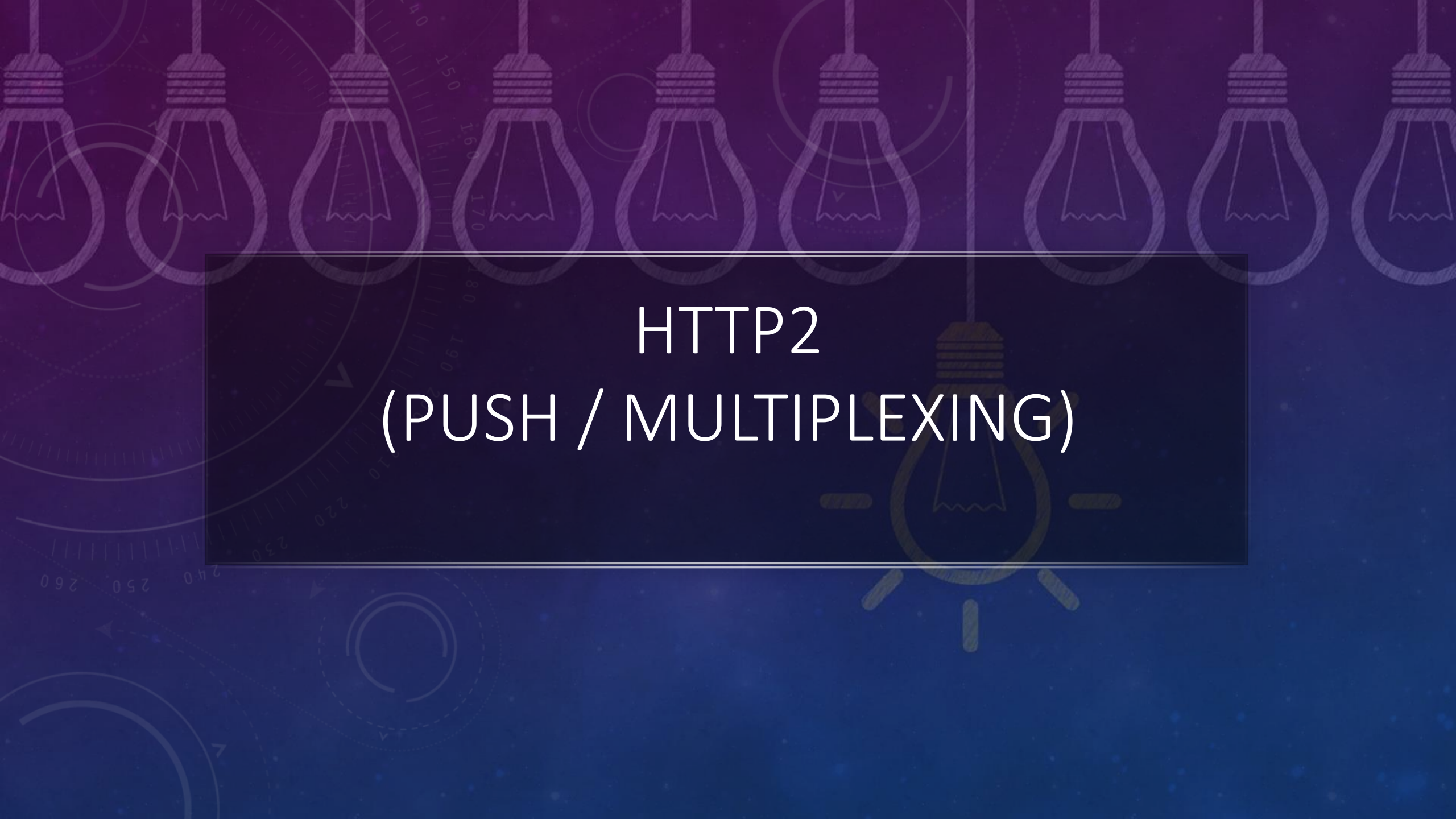
Assets request



Assets process and render

HTTP 1.1

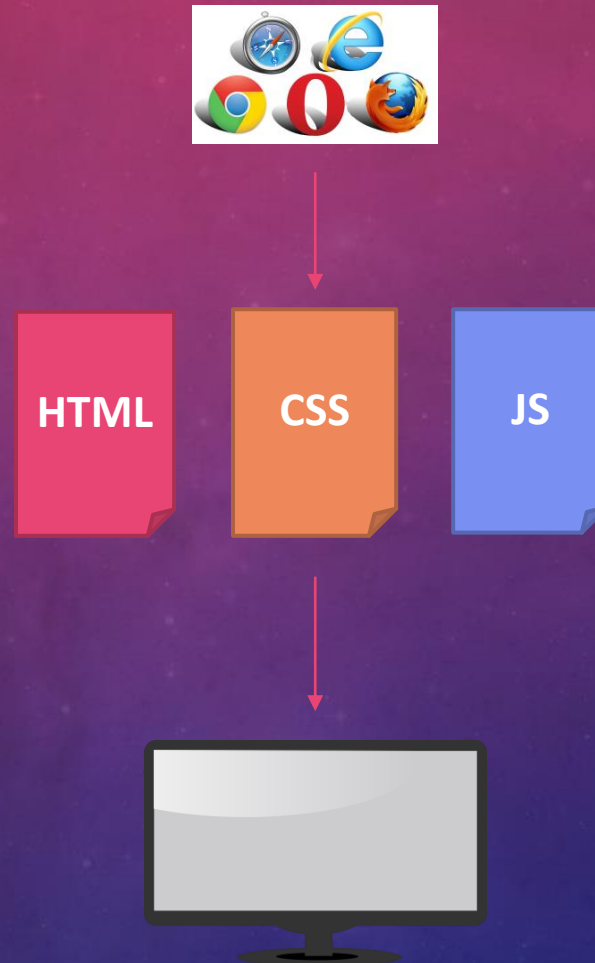
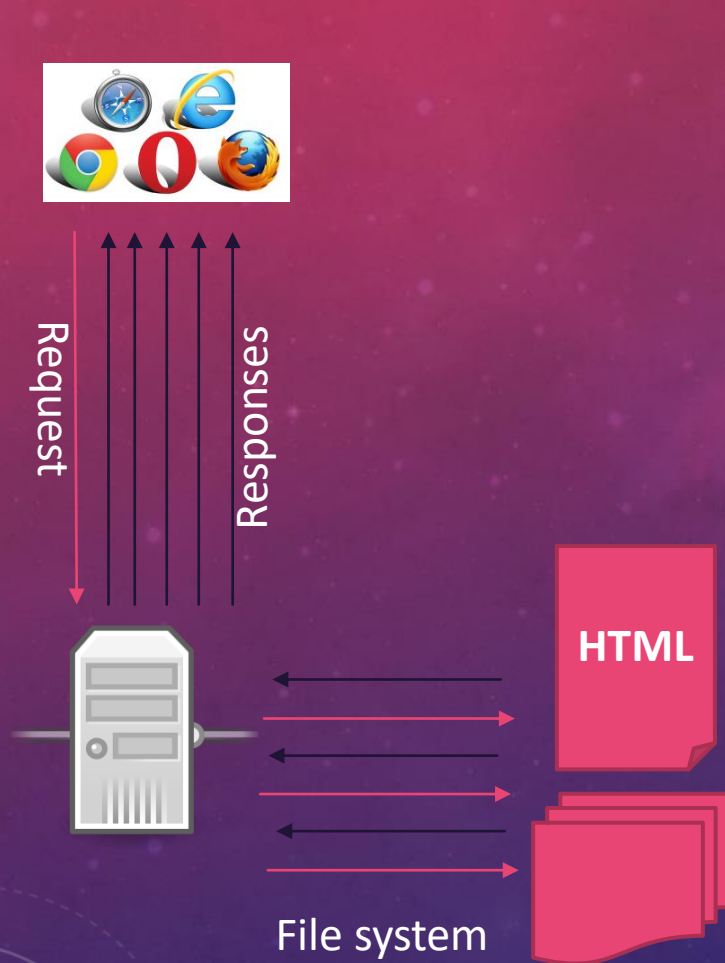


The background is a dark blue gradient. At the top, there is a row of light bulbs hanging from cords. Below them, a large circular scale is visible, with numbers ranging from 40 to 260. The scale has tick marks and some numbers are highlighted in a lighter color. The text "HTTP2 (PUSH / MULTIPLEXING)" is centered in a white, sans-serif font, enclosed in a dark rectangular box.

HTTP2

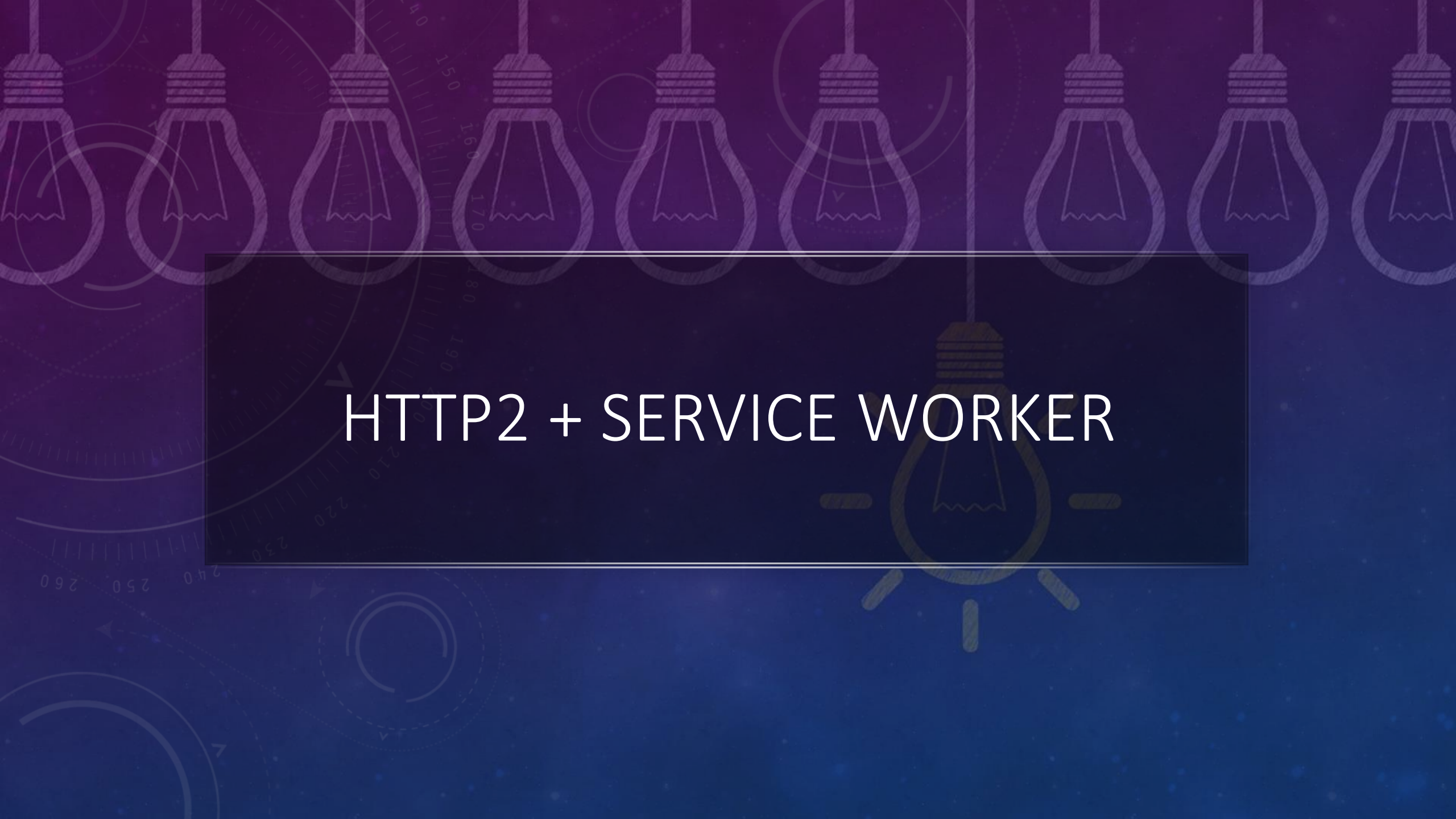
(PUSH / MULTIPLEXING)

HTTP2 PUSH



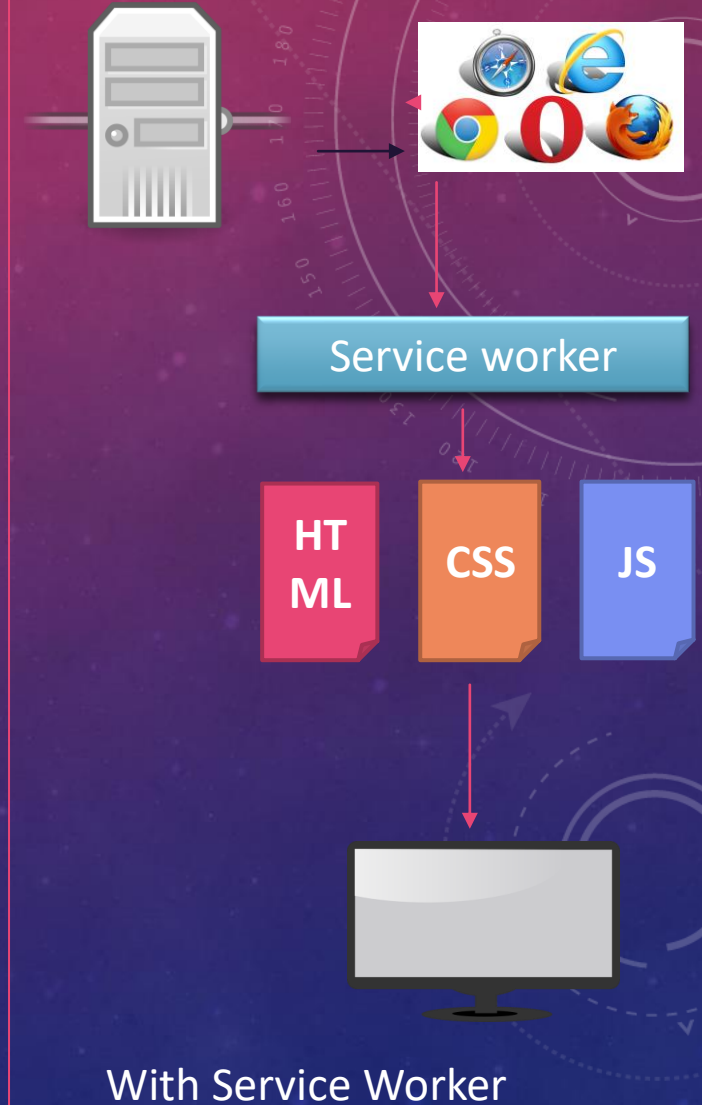
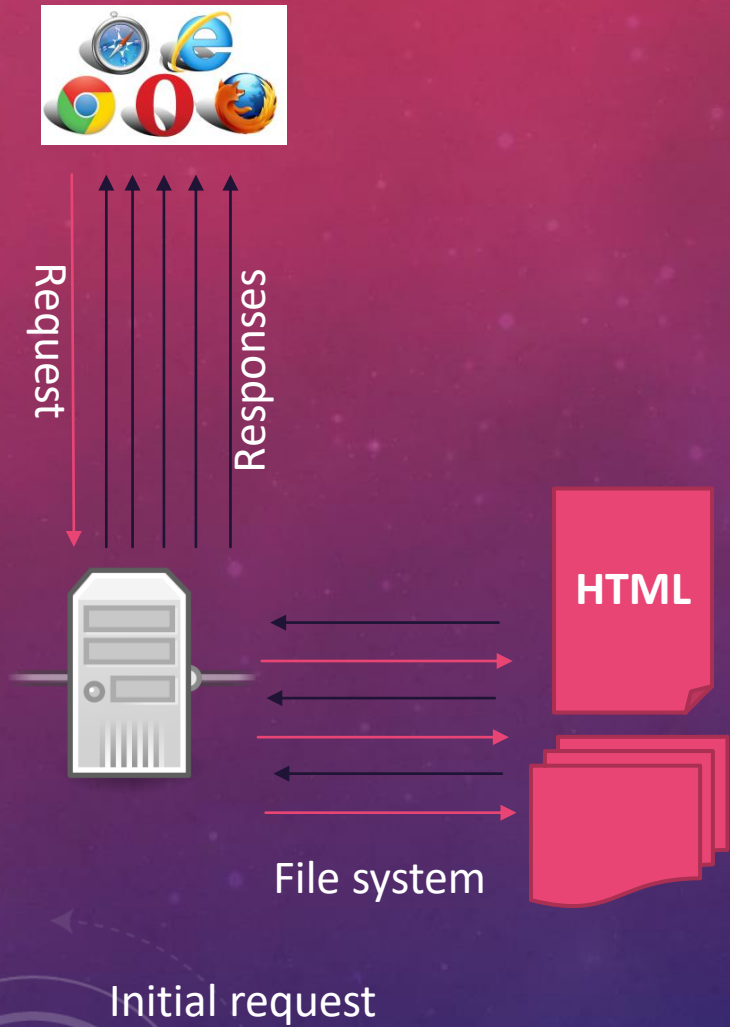
HTTP2 MULTIPLEXING



The background is a dark blue gradient with a series of lightbulbs hanging from the top. The lightbulbs are drawn in a simple, sketchy style. Behind the lightbulbs and across the entire background are faint, light-colored technical diagrams, including circular gauges with numerical scales (e.g., 40, 150, 160, 170, 180, 190, 210, 220, 230, 240, 250, 260) and various geometric shapes like circles and lines. A large, dark blue rectangular box is centered in the middle of the image, containing the text 'HTTP2 + SERVICE WORKER' in white, bold, sans-serif capital letters.

HTTP2 + SERVICE WORKER

SERVICE WORKER



```
importScripts('https://storage.googleapis.com/workbox-cdn/releases/4.3.1/workbox-sw.js');
```

```
workbox.routing.registerRoute(
  /\.?(?:js|css)$/ ,
  // Use cache but update in the background.
  new workbox.strategies.StaleWhileRevalidate({
    // Use a custom cache name.
    'cacheName': 'assets-cache',
    plugins: [
      new workbox.expiration.Plugin({
        maxEntries: 1000,
        maxAgeSeconds: 24 * 60 * 60,
      })
    ]
  })
);
```

```
workbox.routing.registerRoute(
  /\.?(?:woff2|woff)$/ ,
  // Use cache but update in the background.
  new workbox.strategies.CacheFirst({
    // Use a custom cache name.
    'cacheName': 'font-cache',
    plugins: [
      new workbox.expiration.Plugin({
        maxEntries: 8,
        maxAgeSeconds: 30 * 24 * 60 * 60,
      })
    ]
  })
);
```

```
workbox.routing.registerRoute(
  /\.?(?:png|jpg|jpeg|svg|gif)$/ ,
  // Use cache but update in the background.
  new workbox.strategies.CacheFirst({
    // Use a custom cache name.
    'cacheName': 'images-cache',
    plugins: [
      new workbox.expiration.Plugin({
        maxEntries: 1000,
        maxAgeSeconds: 30 * 24 * 60 * 60,
      })
    ]
  })
);
```

The background is a dark blue gradient with a series of light bulbs hanging from the top. A large, semi-transparent speedometer is visible on the left side, with numbers ranging from 140 to 260. The text 'CORE WEB VITALS' is centered in a white, sans-serif font within a dark rectangular box.

CORE WEB VITALS

(Loading)

LCP

Largest Contentful Paint



(Visual Stability)

CLS

Cumulative Layout Shift



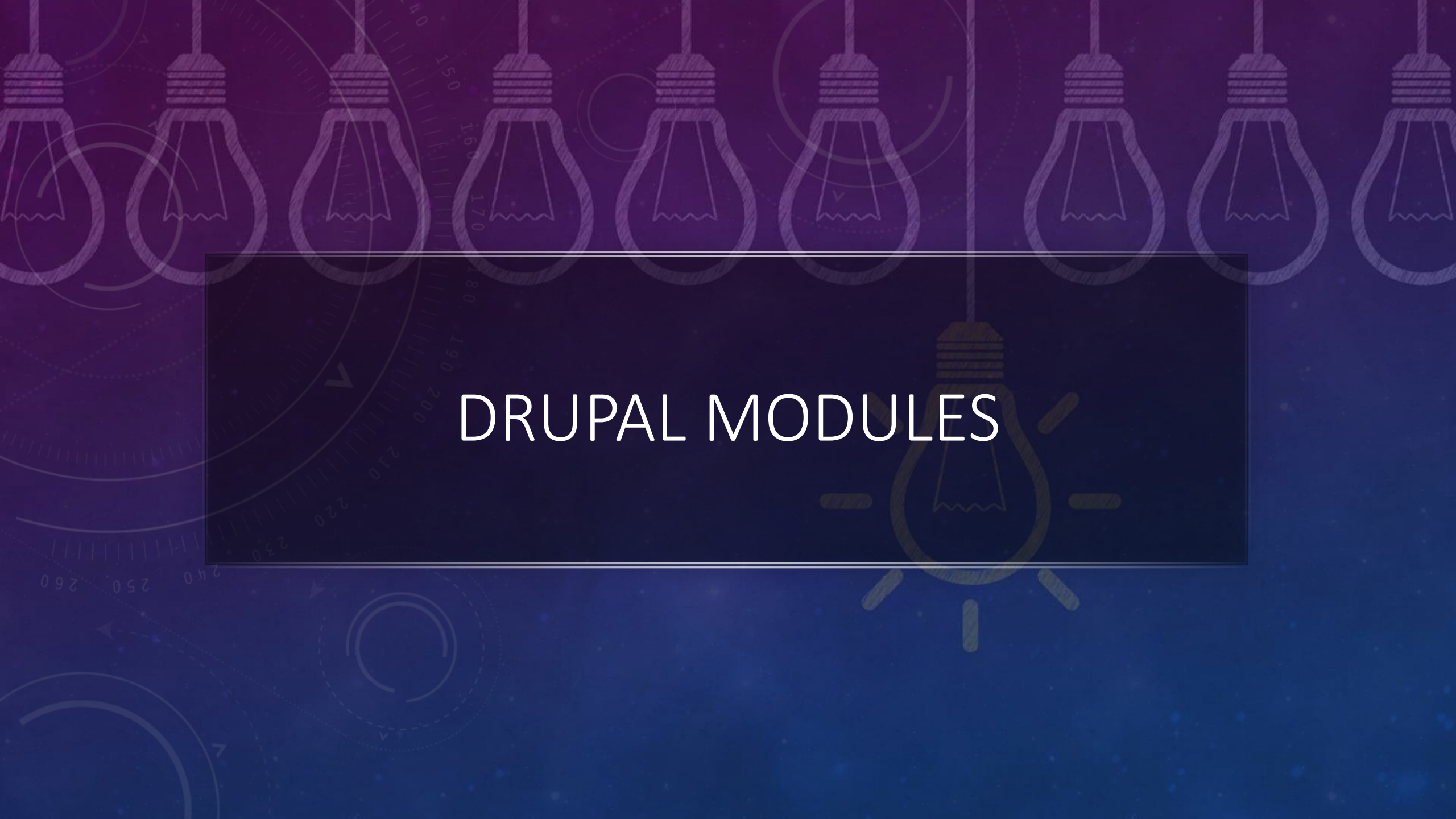
(Interactivity)

FID

First Input Delay



CORE WEB VITALS

The background is a dark blue gradient with a series of light bulbs hanging from the top. A large, semi-transparent dark rectangle is centered in the middle. In the background, there is a faint, large circular gauge or dial with numbers ranging from 140 to 260. The text "DRUPAL MODULES" is written in white, bold, uppercase letters within the dark rectangle.

DRUPAL MODULES

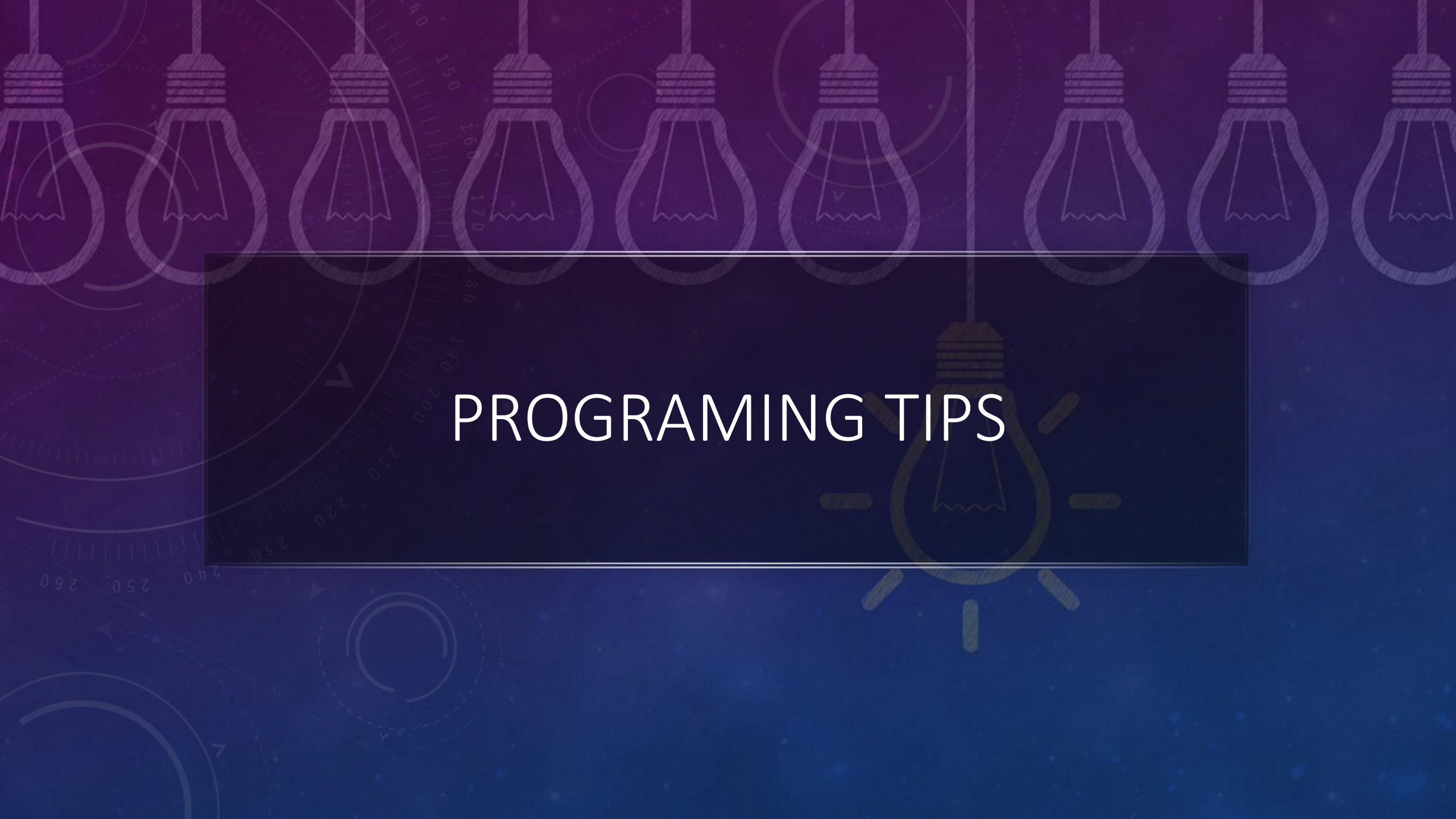


Core

- Big Pipe
- Internal Dynamic Page Cache
- Internal Page Cache

Contributed Modules

- Advanced CSS/JS Aggregation
- Blazy
- CDN
- webp

The background is a dark blue gradient with a subtle pattern of light bulbs and a large, faint gauge on the left side. The gauge has a circular scale with numbers from 140 to 260 and a needle pointing towards the 200 mark. Several light bulbs are hanging from the top, with one bulb in the center-right position glowing with a yellow light. The text "PROGRAMING TIPS" is centered in a white, sans-serif font within a dark rectangular box.

PROGRAMING TIPS



isset() en vez de array_key_exists()

entityQuery()

loadMultiple()

Caching

- Cache tags: cache-item:identifi er ej: node:5, user:3
- Cache context: user.roles, user.roles:anonymous
- Cache max-age

Queue worker / Batch

- Nginx
- MariaDB
- HTTP/2.0

```
server {  
    listen 443 ssl http2; //http2 settings  
    ssl_certificate server.crt;  
    ssl_certificate_key server.key;  
}
```

- Compressed Content

```
server {  
    gzip on;  
    gzip_static on;  
    gzip_types text/plain text/css application/json application/x-javascript text/xml application/xml application/xml-  
    gzip_proxied any;  
    gzip_vary on;  
    gzip_comp_level 6;  
    gzip_buffers 16 8k;  
    gzip_http_version 1.1;  
    ...  
}
```




GRACIAS!

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W3 Tech HTTP2

<https://w3techs.com/technologies/details/ce-http2/all/all>

Articles from Smashing Magazine

<https://www.smashingmagazine.com/2016/02/getting-ready-for-http2/>

<https://www.smashingmagazine.com/2017/04/guide-http2-server-push/>

HTTP2 WiKi

<https://github.com/http2/http2-spec/wiki/Implementations>

HTTP2 can I use

<http://caniuse.com/#search=http2>

The need for mobile speed

https://docs.google.com/viewerng/viewer?url=https://storage.googleapis.com/doubleclick-prod/documents/The_Need_for_Mobile_Speed_-_FINAL.pdf

High Performance Browser Networking

<https://hpbwn.co/>

Web Vitals

<https://web.dev/vitals/>

Planning for Performance: PRPL (Chrome Dev Summit 2016)

<https://www.youtube.com/watch?v=RWLzUnESylc&index=25&list=PLNYkxOF6rcIBTs2KPy1E6tIYaWoFcG3uj>

Simplehttp2server - Developer Diary

https://www.youtube.com/watch?v=OLWyOIOaeP4&list=PLNYkxOF6rcIDXTg3Gm8Y9Q_D8Ag_RDyQO

HTTP/2 Server Push and Service Workers

<https://24ways.org/2016/http2-server-push-and-service-workers/>

Fast By Default: Modern Loading Best Practices (Chrome Dev Summit 2017)

https://www.youtube.com/watch?v=_srJ7eHS3IM

Improving Drupal 9 Performance with modules, best coding practices and the right server configuration

<https://www.specbee.com/blogs/improving-drupal-9-performance-modules-best-coding-practices-and-right-server-configuration>

A Brief Guide on Improving the FrontEnd Performance of your Drupal 8 Website with Advanced CSS/JS Aggregation

<https://www.specbee.com/blogs/drupal-8-website-advanced-css-js-aggregation-brief-guide-improving-front-end-performance>