BUILDING SSR CAPABLE APPS WITH NUXT.JS

VueBLR #5 - What's up with SSR?

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twitter.com/_pi0_

A JOURNEY TO SSR

HOW A TRADITIONAL WEB APP WORKS?

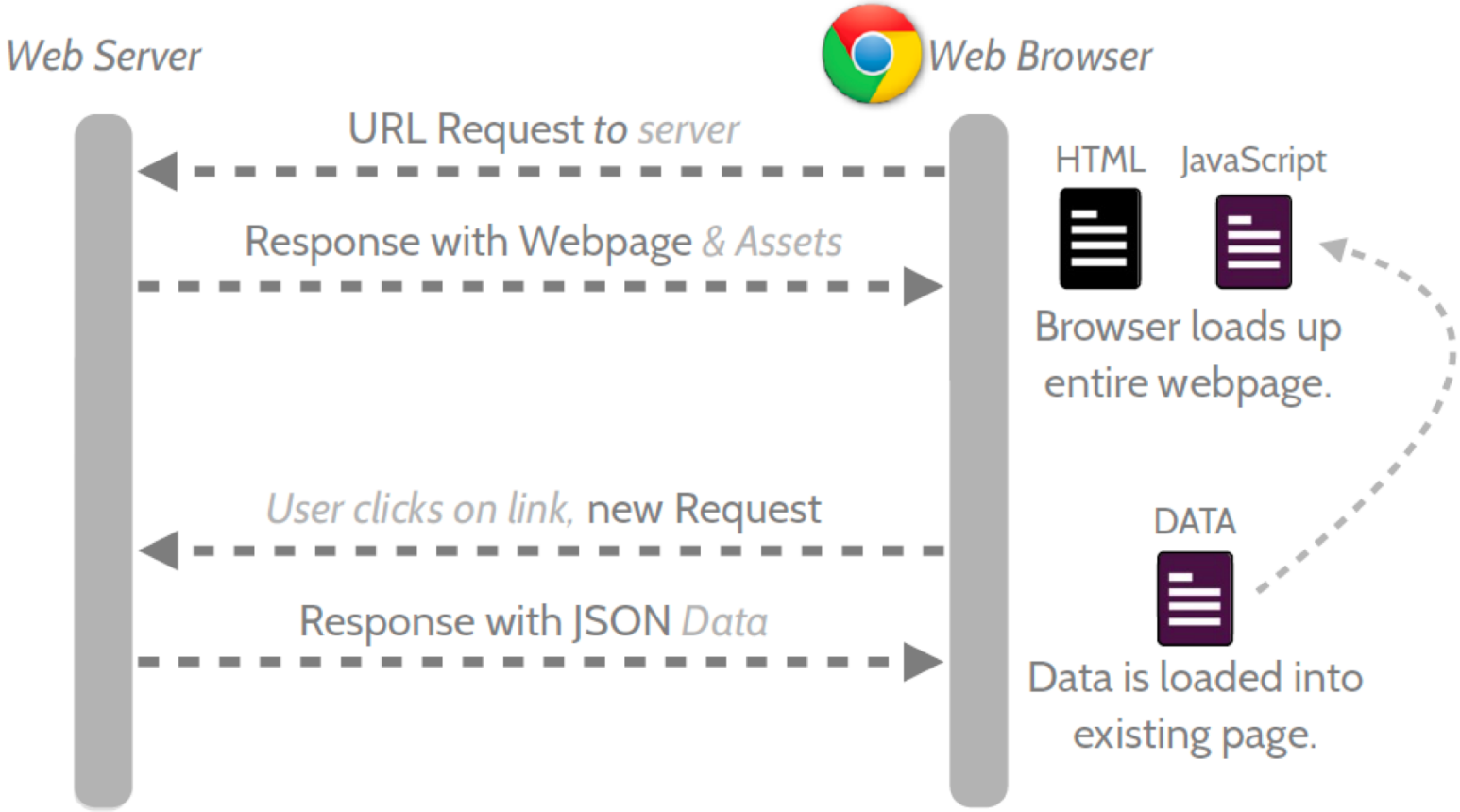

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Image source: Code School

TRADITIONAL WEB APPS

- **Pros**
  - Simpler Implementation
  - SEO friendly by default
  - Rich ecosystem of frameworks
  - They are everywhere!

- **Cons**
  - No offline support
  - Page changes needs a full reload
  - **Ajax for more dynamic content**
  - Leads to duplicate logic
  - Not really **app like** feeling
  - Manually manipulation of DOM which was created using server response
  - Using differing technologies/layers for same functionality

CLIENT SIDE RENDERING

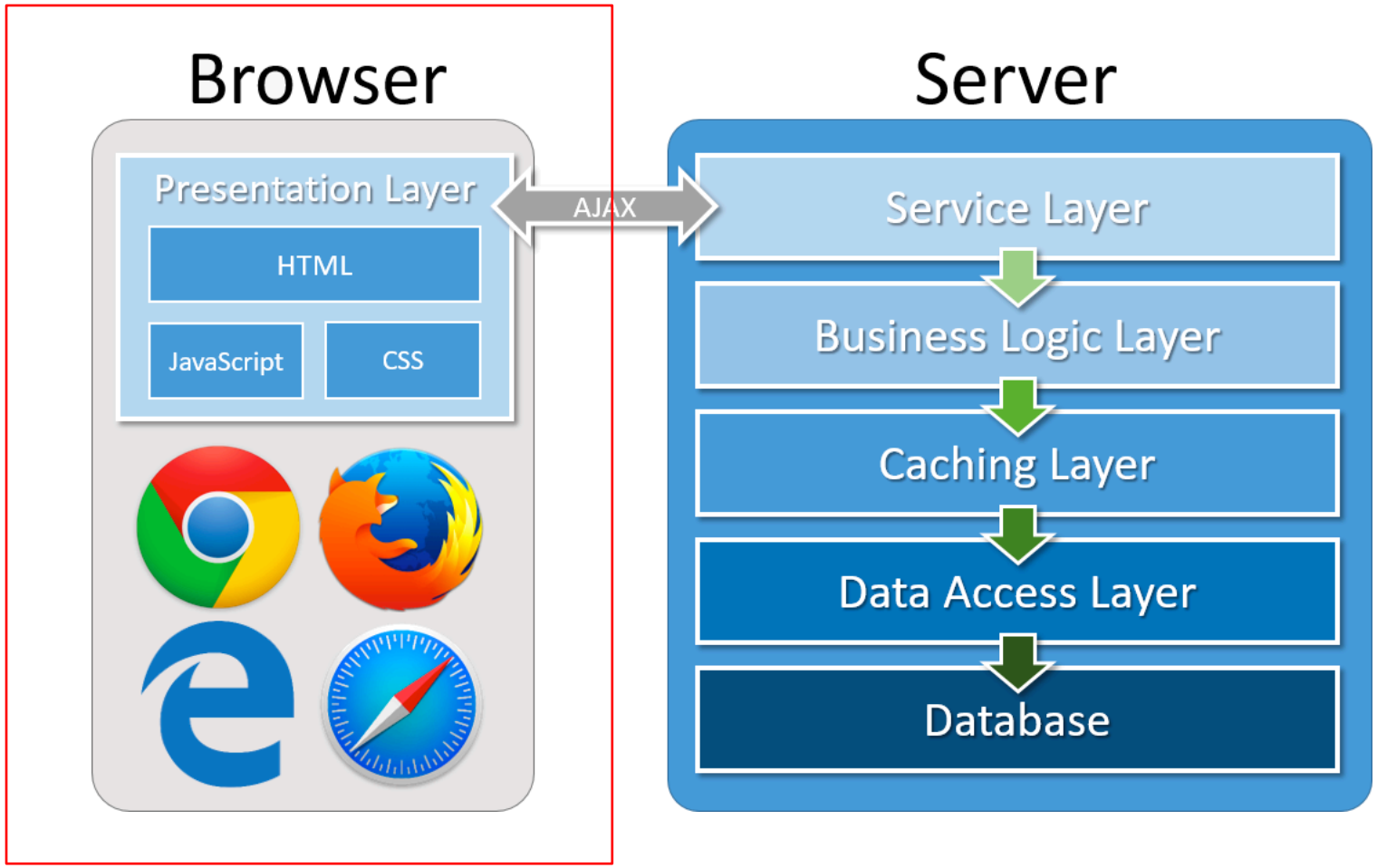

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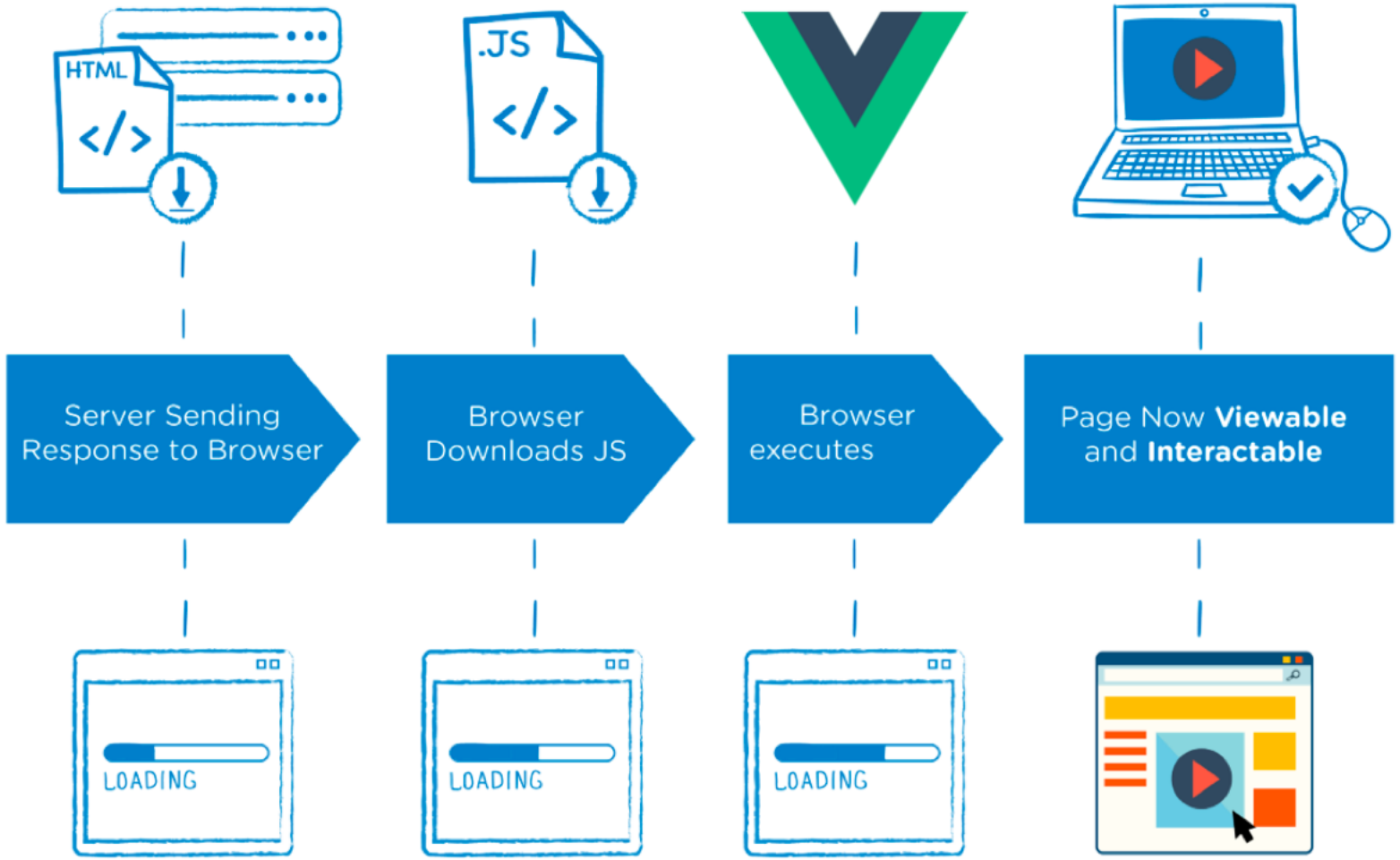
Image source: dnnsoftware.com

CSR


HTML
.JS
Server Sending Response to Browser
Browser Downloads JS
Browser executes
Page Now **Viewable** and **Interactable**
LOADING
LOADING
LOADING

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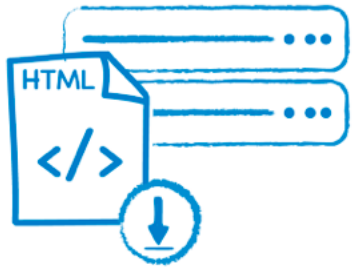
CSR/SPA WEB APPS

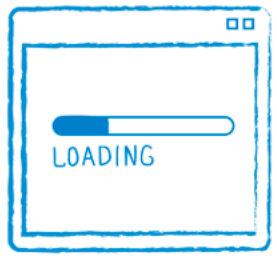
- **Pros**
  - Offline by default!
  - No more server dependent
  - Pure API-Oriented
- **Cons**
  - Clients need JS
  - Not so SEO friendly
  - Slow initial load time

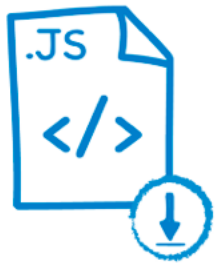
SSR WEB APPS

SSR



Server Sending Ready to be rendered HTML Response to Browser





Browser Renders the page, **Now Viewable**, and Browser Downloads JS

Browser executes

Page Now **Interactable**

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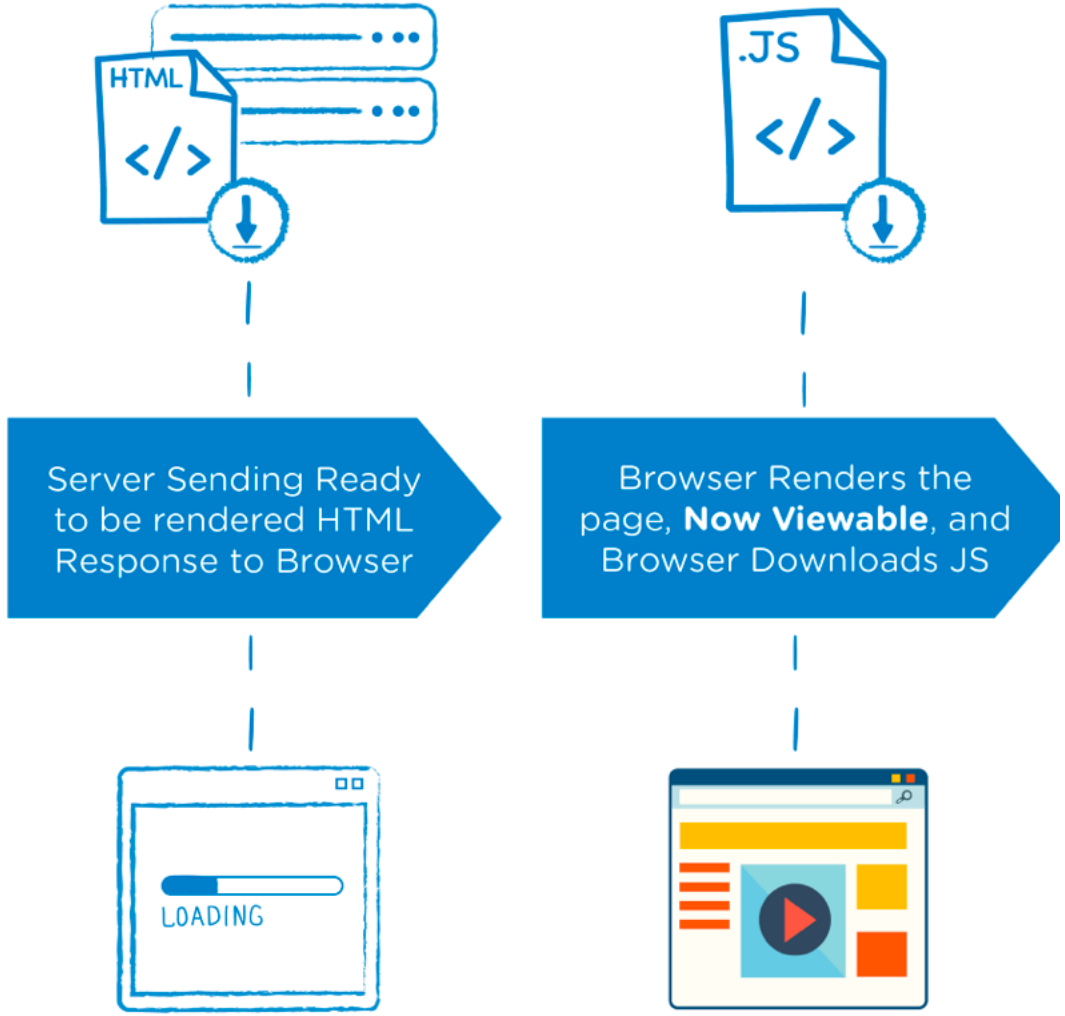
FAST INITIAL LOAD



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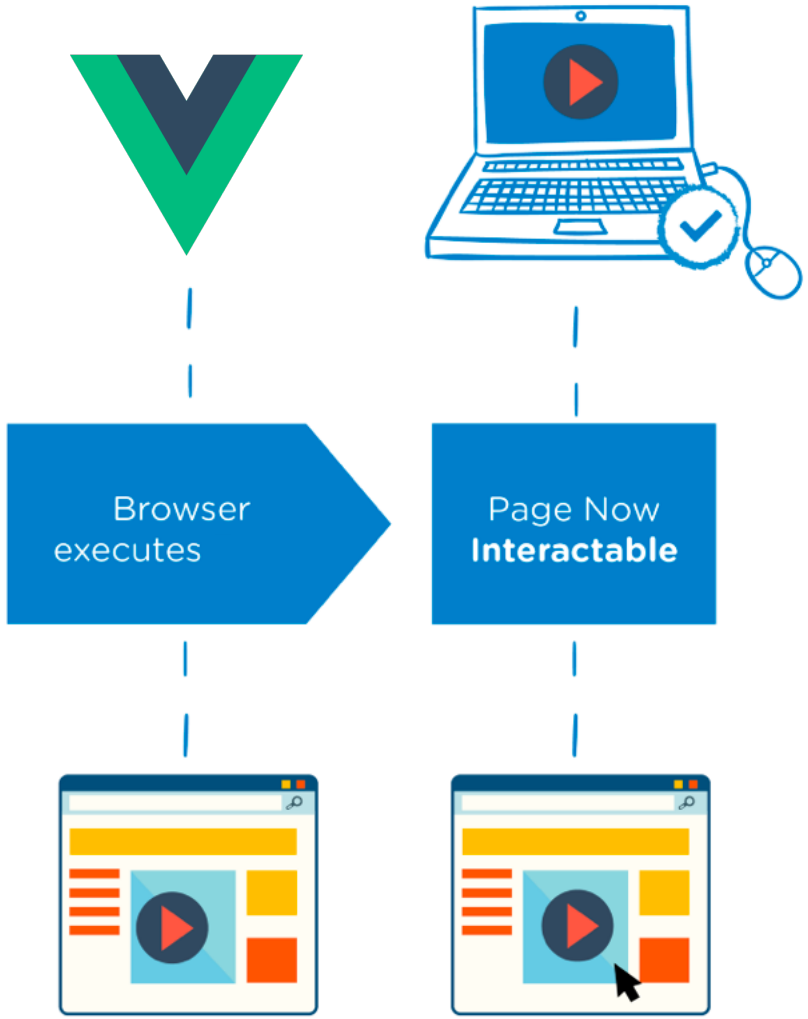
INTRACTABLE PAGES



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Universal Vue.js Applications

Nuxt.js presets all the configuration needed to make your development of a Vue.js Application **Server Rendered** more enjoyable.

ZERO CONFIGURATION NEEDED

- Install Nuxt with npm and Create **pages/index.vue** and it works!
- You can then extend any aspect of Nuxt using **nuxt.config.js** and **modules system**

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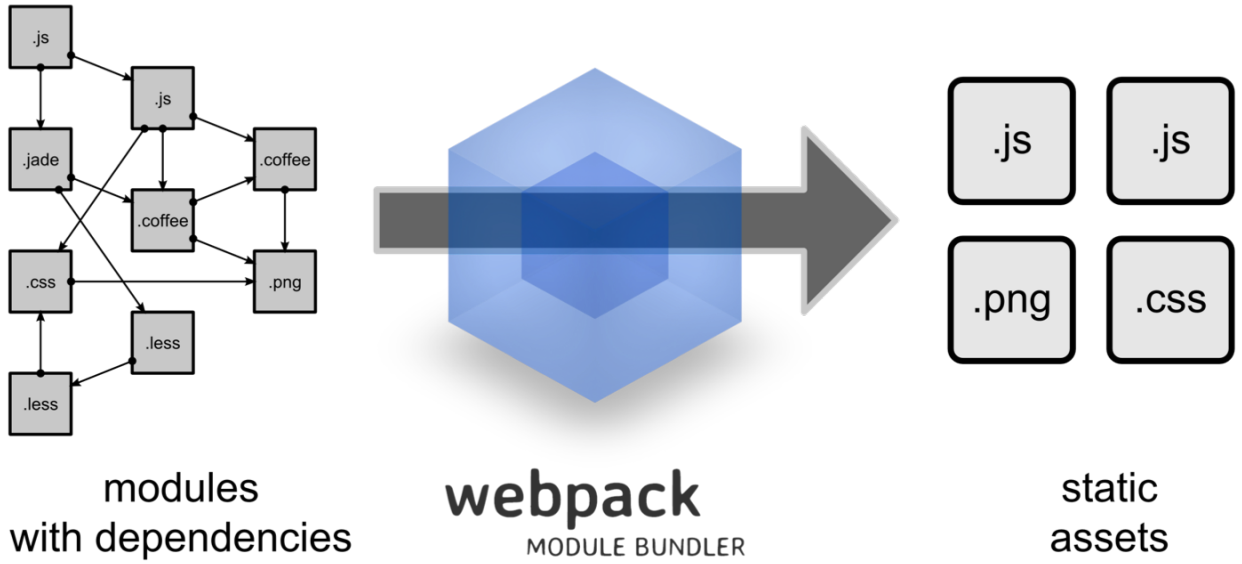
BUILD PROCESS

- Provides webpack config for both SSR and SPA bundles
- ES6/ES7 Transpilation
- Easier development with HMR



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PERFORMANT OUT OF THE BOX!

- Automatic Code Splitting
- Server-Side Rendering
- Bundling and minifying of your JS & CSS
- HTTP/2 push headers ready
- Chunk hashing
- Manifest extraction

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RUNTIME

- Production and development web server with webpack-dev-middleware
- Static assets serving
- Pluggable connect/express middleware

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STATIC GENERATED WEBSITES

- SSR Benefits without high server loads
- Statically host anywhere

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BUT WAIT.... SSR IS SO HARD AND COSTLY!

- Client Side Hydration
- Ajax requests in Server Side
- High Server Loads
- Window is undefined!
- Shared Context

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EASY SWITCH BETWEEN SPA/UNIVERSAL

Nuxt.js Hacker News

HackerNews clone built with Nuxt.js.

Live Demo

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MODULES ECOSYSTEM

- Modules are great if you:
  - Are a member of an **agile team** that needs to quickly bootstrap new projects.
  - Are tired of **re-inventing** the wheel for common tasks like integrating Google Analytics.
  - Are a lovely **Open Source** enthusiast who would like to easily **share** your work with the community.
  - Are a member of an **enterprise** company that values **quality** and **reusability**.
  - Are often up against short deadlines and don't have time to dig into the details of every new library or integration.
  - Are tired of dealing with breaking changes to low-level interfaces, and need things that **just work™**.

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⚡ PWA MODULE

- Using Nuxt PWA you can supercharge your current or next Nuxt project with a heavily tested, updated and stable PWA solution and zero-config!

Packages

Package	Downloads	Latest	Changelog
@nuxtjs/pwa	downloads 16k	npm@latest v2.0.4	Changelog
@nuxtjs/manifest	downloads 19k	npm@latest v2.1.0	Changelog
@nuxtjs/meta	downloads 17k	npm@latest v2.0.1	Changelog
@nuxtjs/workbox	downloads 19k	npm@latest v2.1.1	Changelog
@nuxtjs/icon	downloads 17k	npm@latest v2.0.1	Changelog
@nuxtjs/onesignal	downloads 87	npm@latest v2.0.0	Changelog

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SOME USEFUL MODULES FOR PWA

- Axios Module
- Proxy Module
- Auth Module

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NEXT STEPS

- ✓ Native Async/Awaits with Node 8.0.0
- Stable Nuxt 1.0.0 (Currently: nuxt@next)
- Blazing fast SSR with multi threaded rendering
- Faster and incremental generate
- Webpack 4

THANKS FOR YOUR ATTENTION!