

Frontend
developer

MYCOS



Basic is Important

- Logic & Self Learning
(required)
- Basic Inter-networking



Logic & Self Learning

- Sort Search String
- IF, Loop
- Data Structure
- Growth Mindset



Internets

Basic: Http Method ,Get, Post

intermediate: Other Http Method,
Ajax, Server Side and Client Side

Advanced: Session, Cache, Stateless
(jwt), Domain Name, Cname



Web Technologies

- HTML
- CSS
- JavaScript
- GIT, Version Control
- Web App & SPAs (React & Angular & Vue)



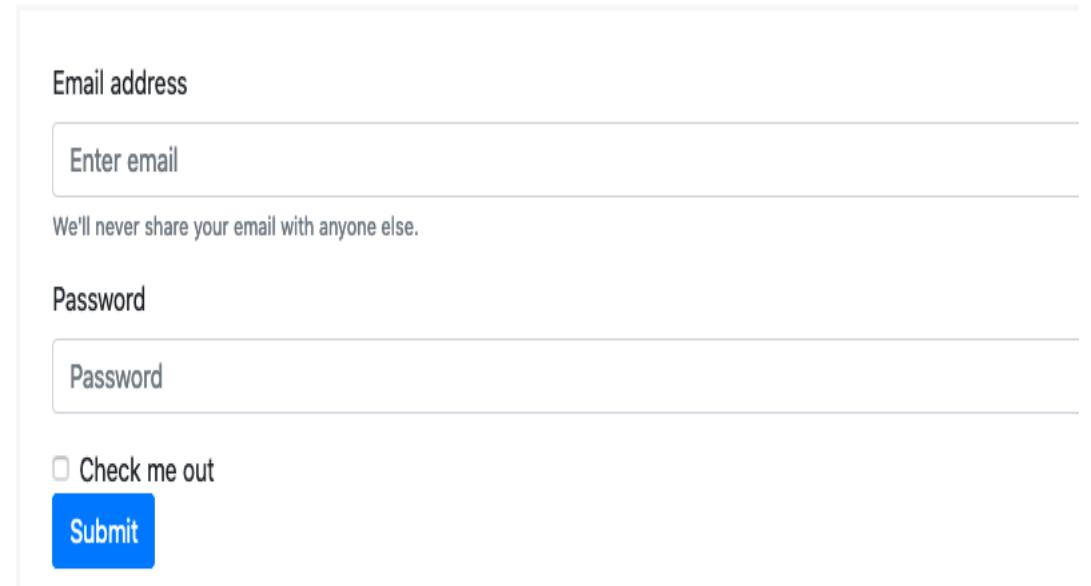
HTML

- Basic : head, body, script, div, p, h1- h5, img
- intermediate : Use Semantic Tag
 - <form/> for submit input
- Advance: Web Accessibility



Web Accessibility

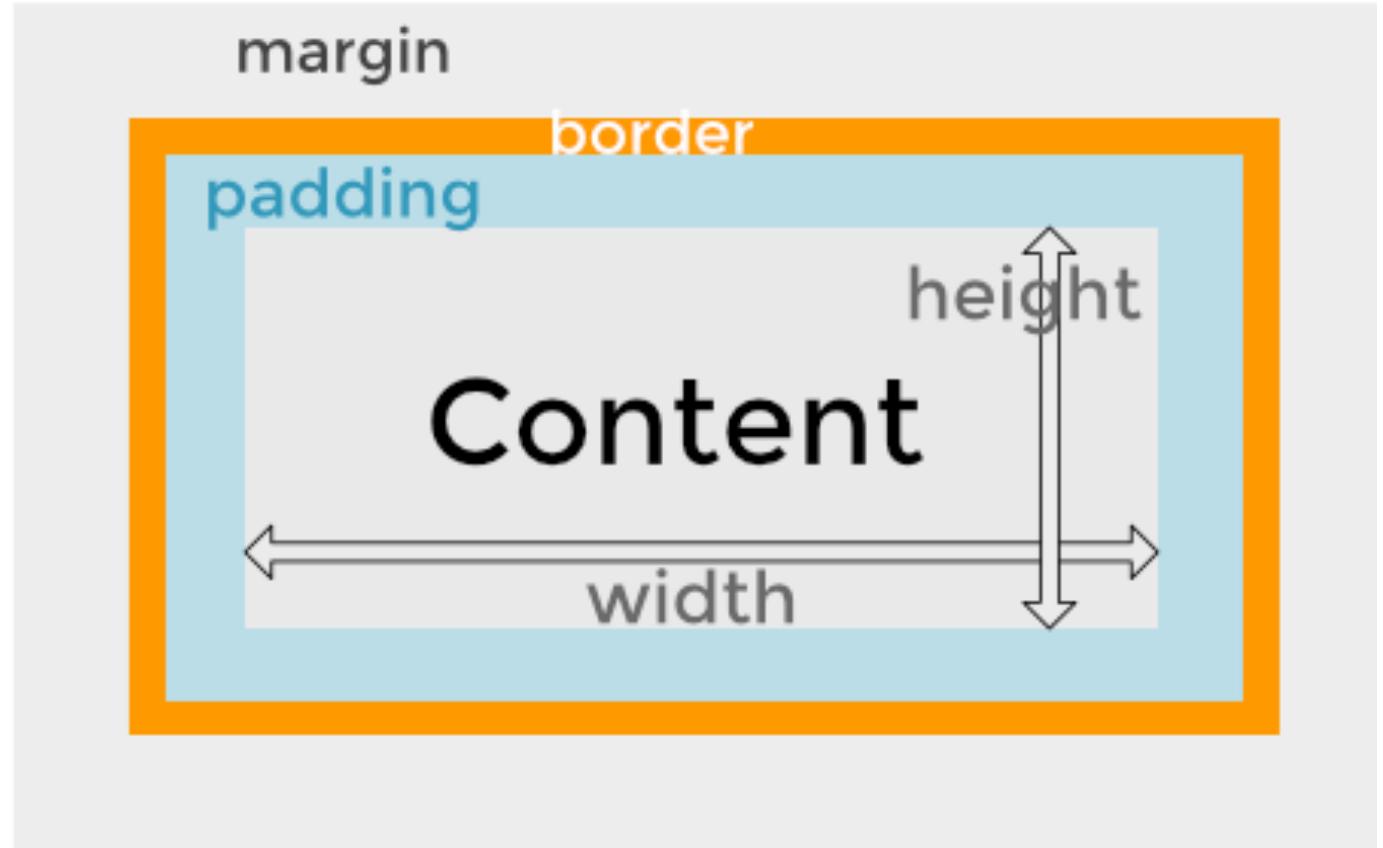
- Label for ..
- Submit form with press Enter
- use CSS framework (bootstrap)



```
<form>
  <div class="form-group">
    <label for="exampleInputEmail1">Email address</label>
    <input type="email" class="form-control" id="exampleInputEmail1" aria-describedby="emailHelp" placeholder="Enter email" value="johndoe@example.com" />
    <small id="emailHelp" class="form-text text-muted">We'll never share your email with anyone else.</small>
  </div>
  <div class="form-group">
    <label for="exampleInputPassword1">Password</label>
    <input type="password" class="form-control" id="exampleInputPassword1" placeholder="Password" value="password123" />
  </div>
  <div class="checkbox">
    <label for="checkbox1">Check me out</label>
    <input type="checkbox" id="checkbox1" checked="" value="checked" />
  </div>
  <button type="submit" class="btn btn-primary">Submit</button>
</form>
```

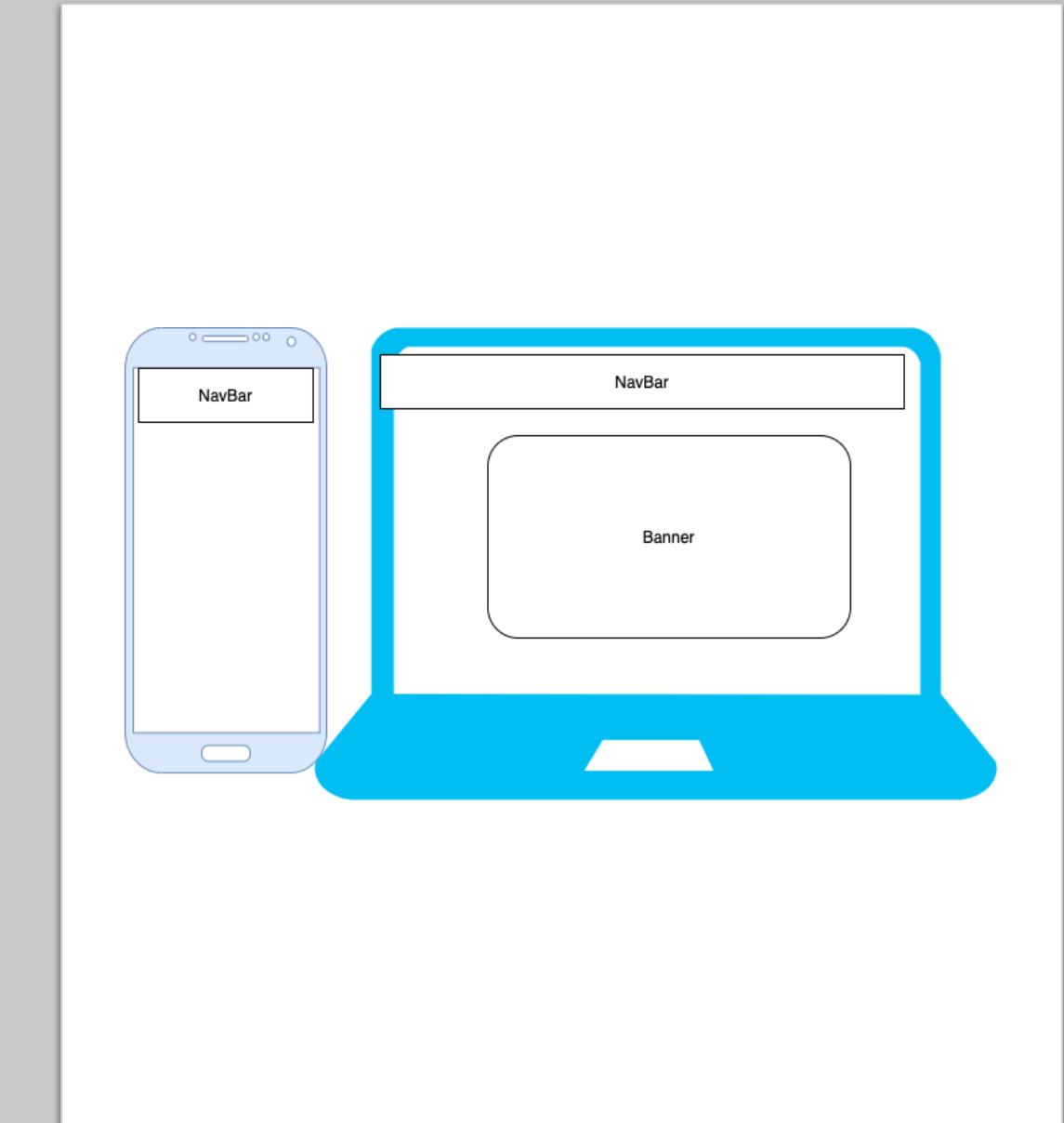
CSS

- Basic: CSS Framework, position, color, margin, border, padding, Priority without !important



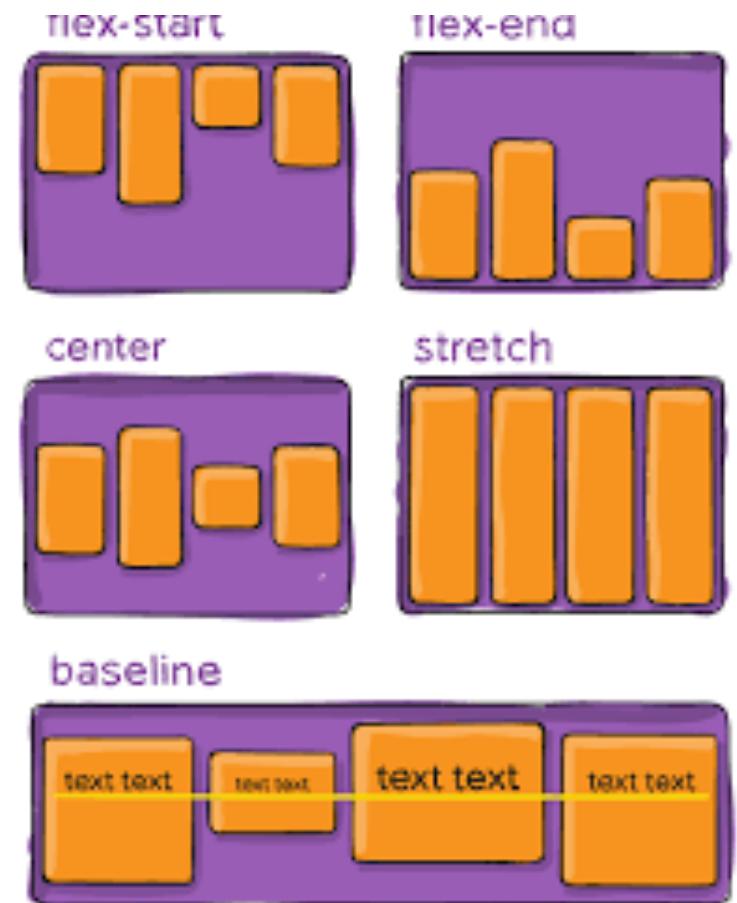
Intermediate CSS

- Mobile First, media-query
- POST-CSS: tool for transforming CSS with JavaScript
- SCSS LESS SASS Pre-processor
- Avoid !important , position: absolute
- CSS Architecture: BEM Rule
 - banner__inside
 - banner__inside--color



CSS

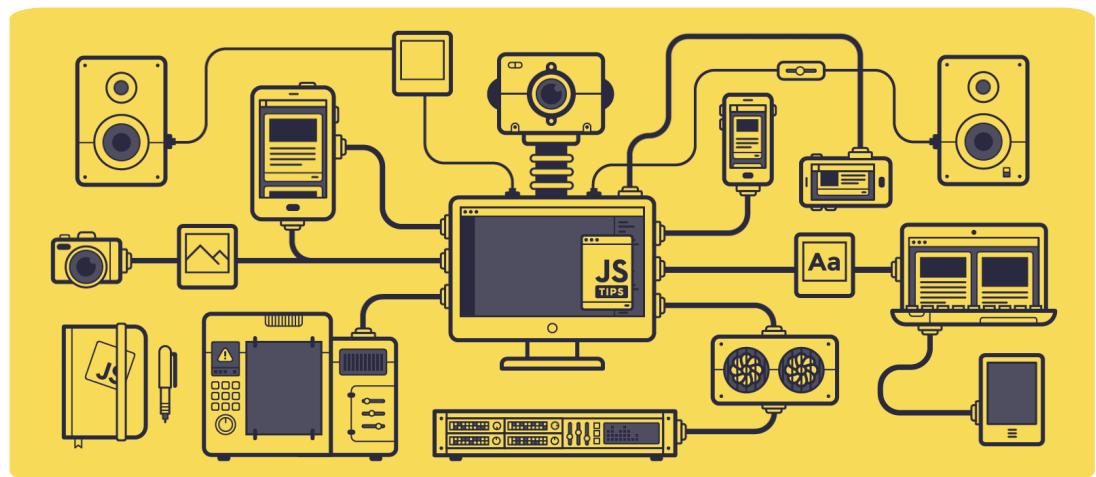
- Advance: Layout Grid without Framework, flex boxes: align display space ...
- Legend: ทำให้สวยงาม



JavaScript

- JavaScript is the **Programming Language** for the Web.
- JavaScript can update and change both **HTML** and **CSS**.
- JavaScript can **calculate, manipulate** and **validate** data.

(w3schools)



Intepeters

Chrome: v8 engine (Node.js)

Firefox: SpiderMonkey

Safari: JavaScriptCore

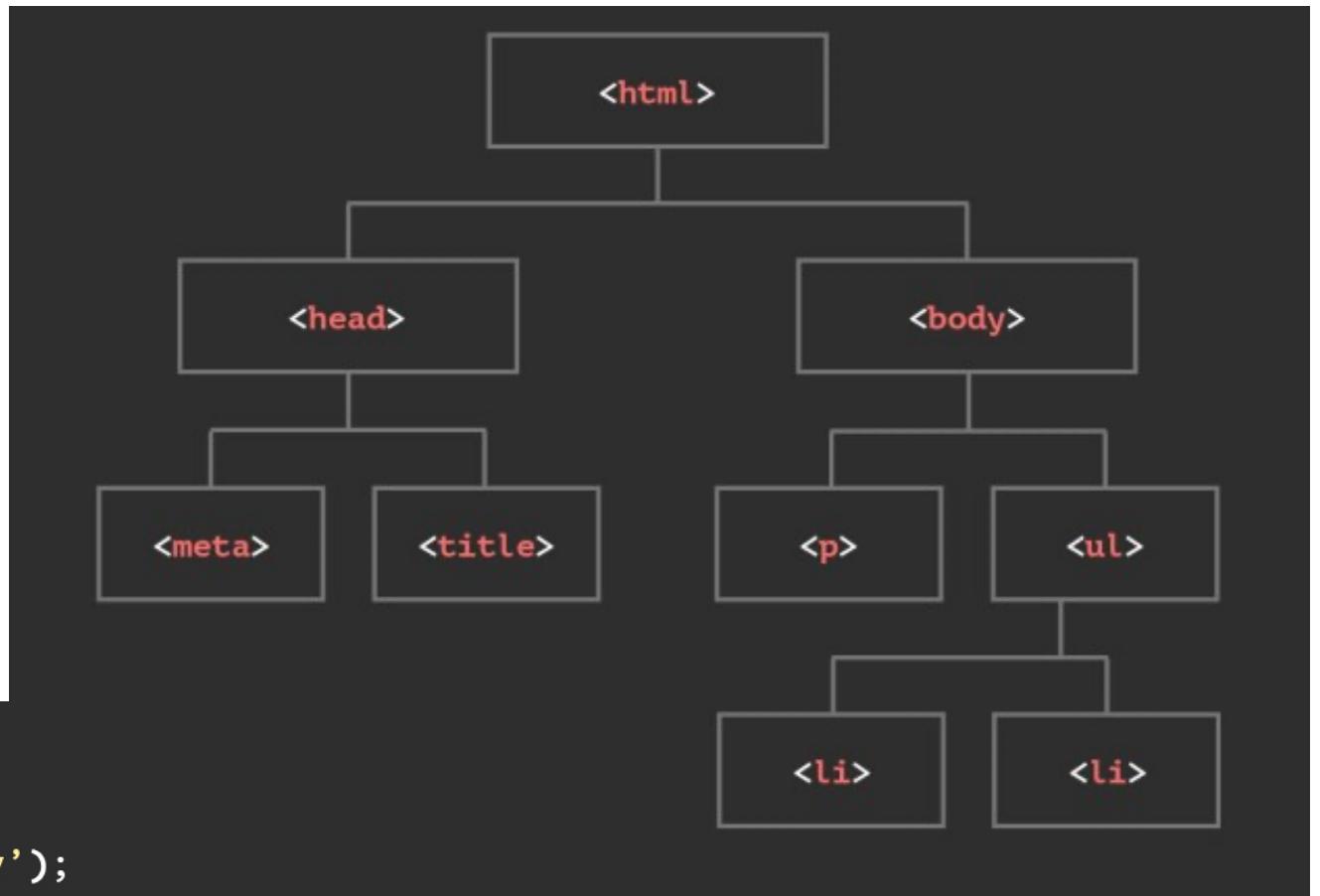
Microsoft: Chakra (old)

JavaScript

Basic: Datatype, If loop syntax,
manipulate DOM

`document.getElementById("")`

```
// Selecting an element by tag type:  
var divs = document.querySelectorAll('div');  
  
// Selecting elements by class:  
var content = document.getElementsByClassName('content');  
  
// Selecting elements by id:  
var about = document.getElementById('about');
```

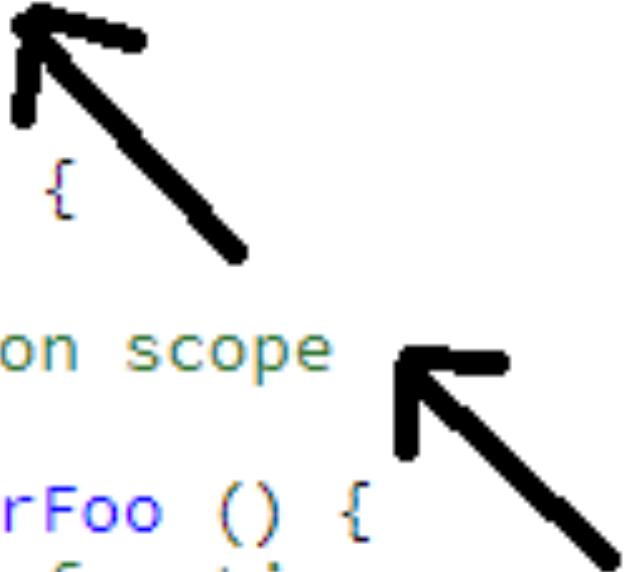


JavaScript Object Notation: JSON

Intermediate: JSON, Write
AJAX, Async, Scope, bind
Events

```
{  
    array: [  
        object: {  
            att1: 1234,  
            attName: "My Name",  
            attBool: true  
        }  
    ]  
}
```

```
// global scope  
bar = 10;  
  
function foo () {  
    // foo function scope  
  
    function innerFoo () {  
        // innerFoo function scope  
        console.log(bar)  
    }  
}
```



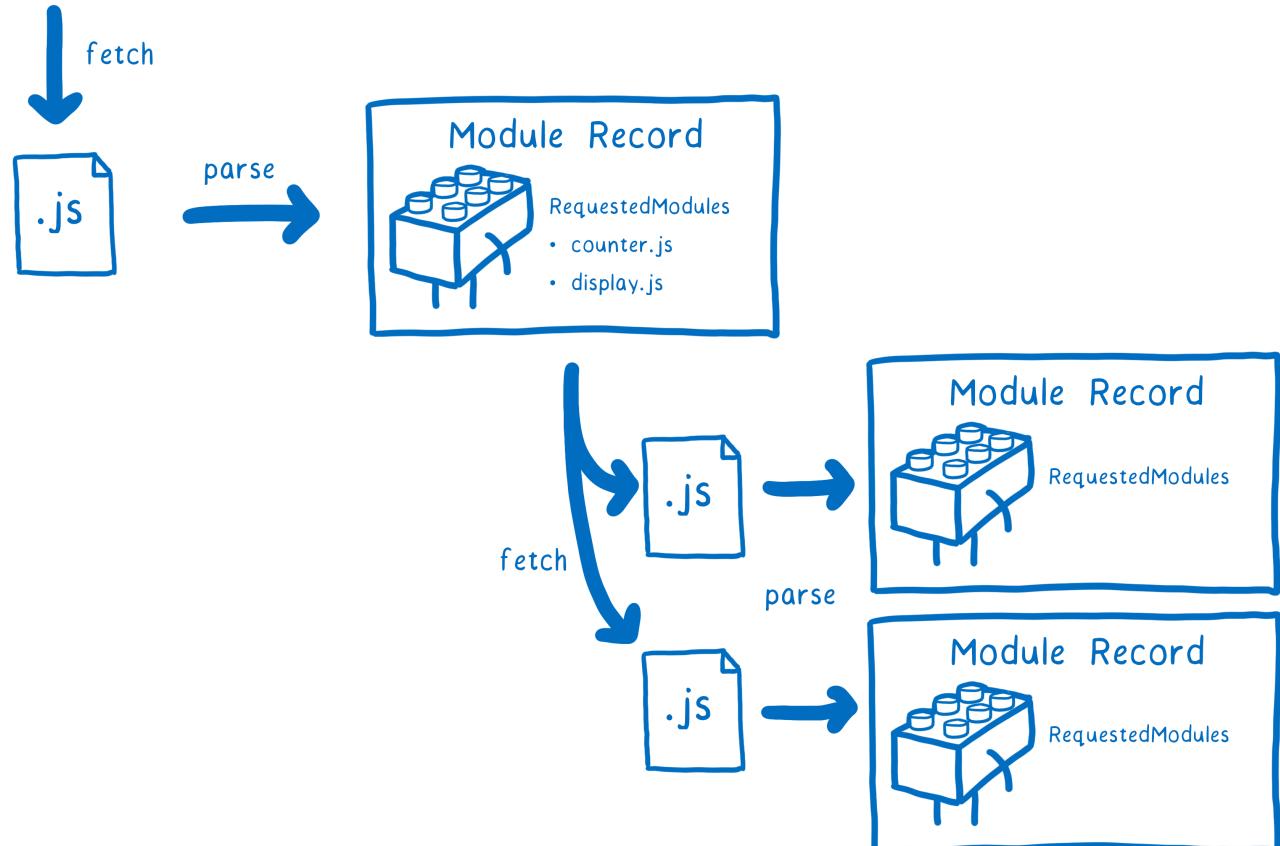
JavaScaipt

- Advance: ES6, Modules, Functional Programming, This keyword, Class

- Optional: Jquery



`src="main.js" type="module">`



Git

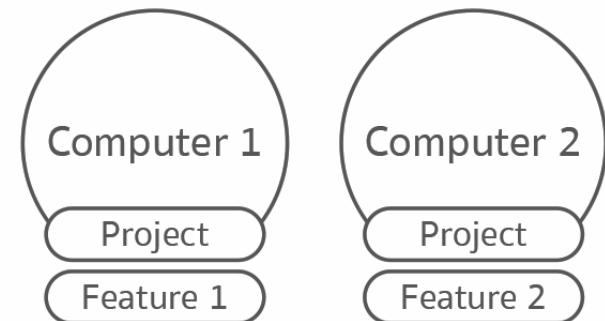
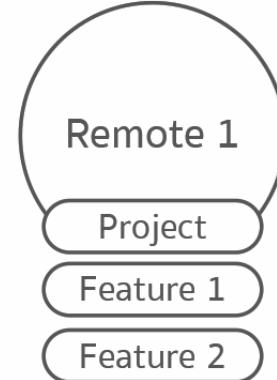
Basic: Commit, Push, Pull, Local & Remote

Intermediate: Revert, Merge, Pull Request, Tag, Git Flow

Advanced: Cherry Pick, Rebase, Hooks, Release, Versioning

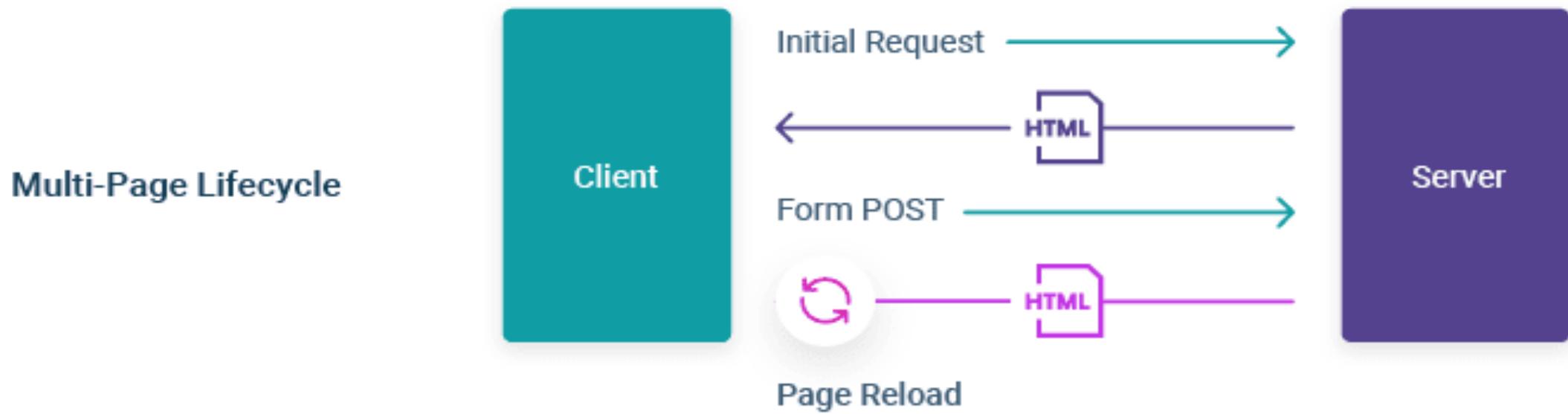
Server

Client



Web App

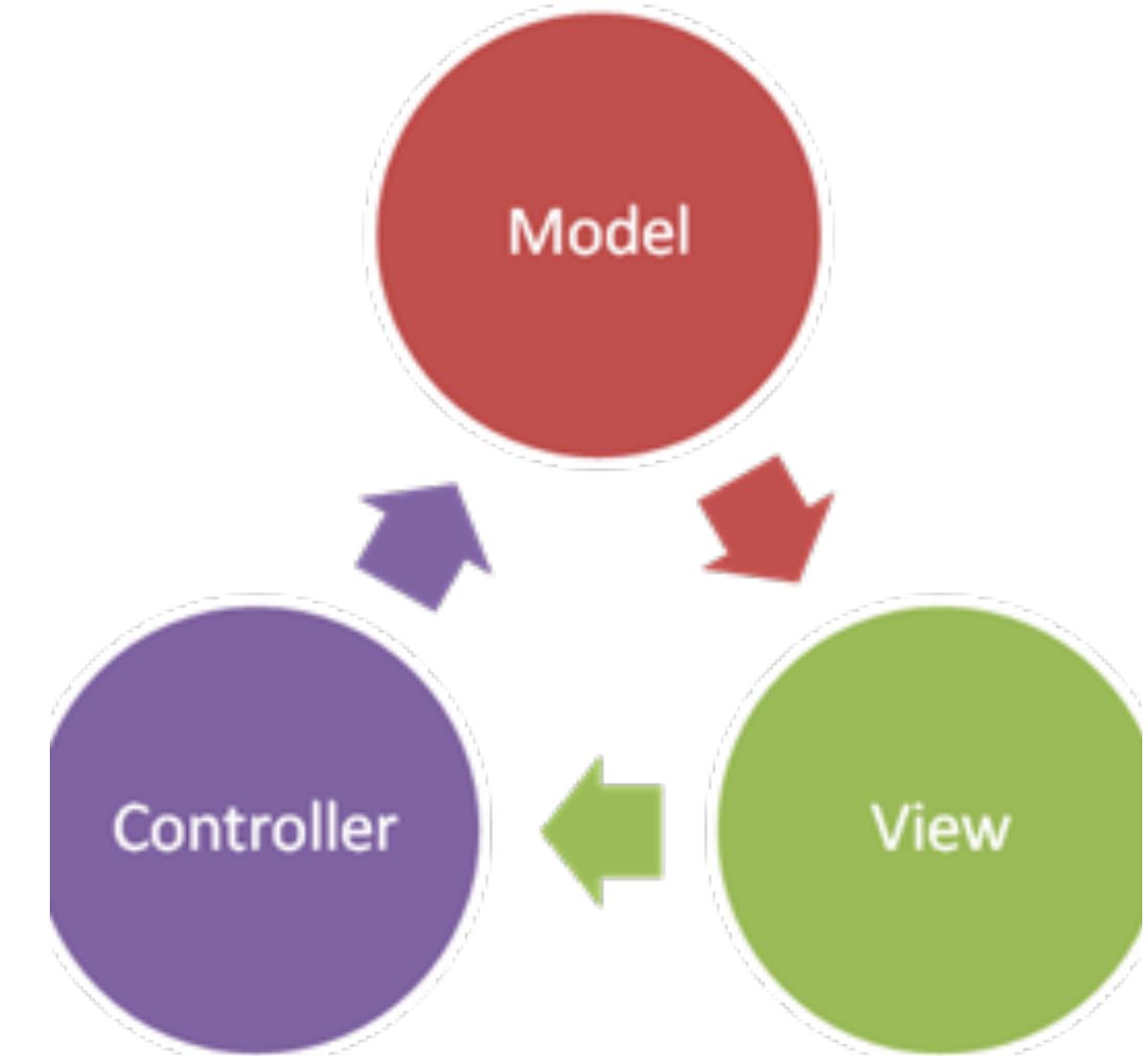
- Server Render Html -> show html on Browsers



- Pros
 - Unfamiliar with JavaScript
 - SEO

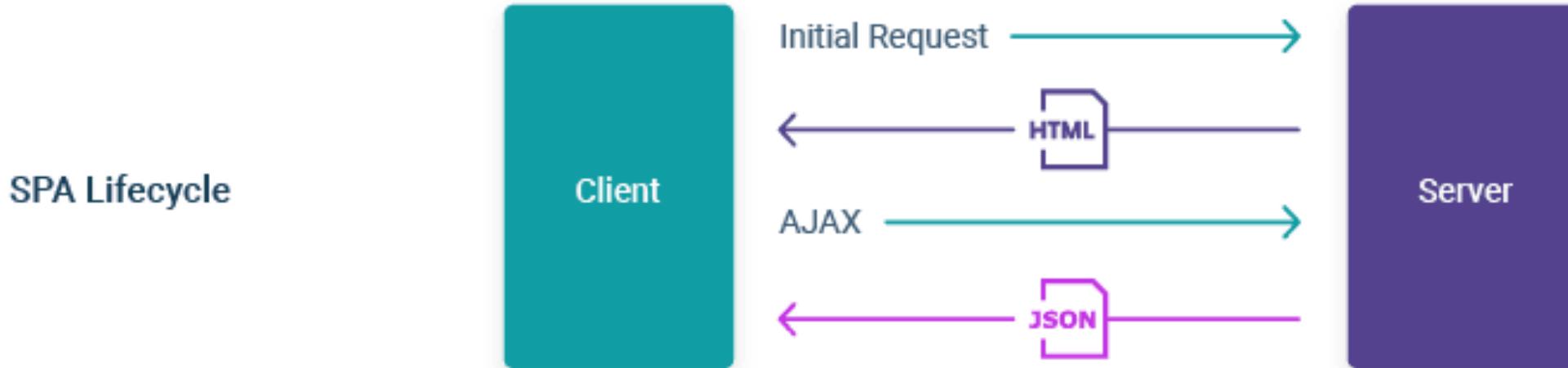
Web App (full stack)

- PHP Laravel, ASP Dotnet, Node.JS, etc.
- Basic: Post/get Data, Render Html template
- Intermediate: Multiple Pages, connect database
- Advance: Authentication, Session, cache



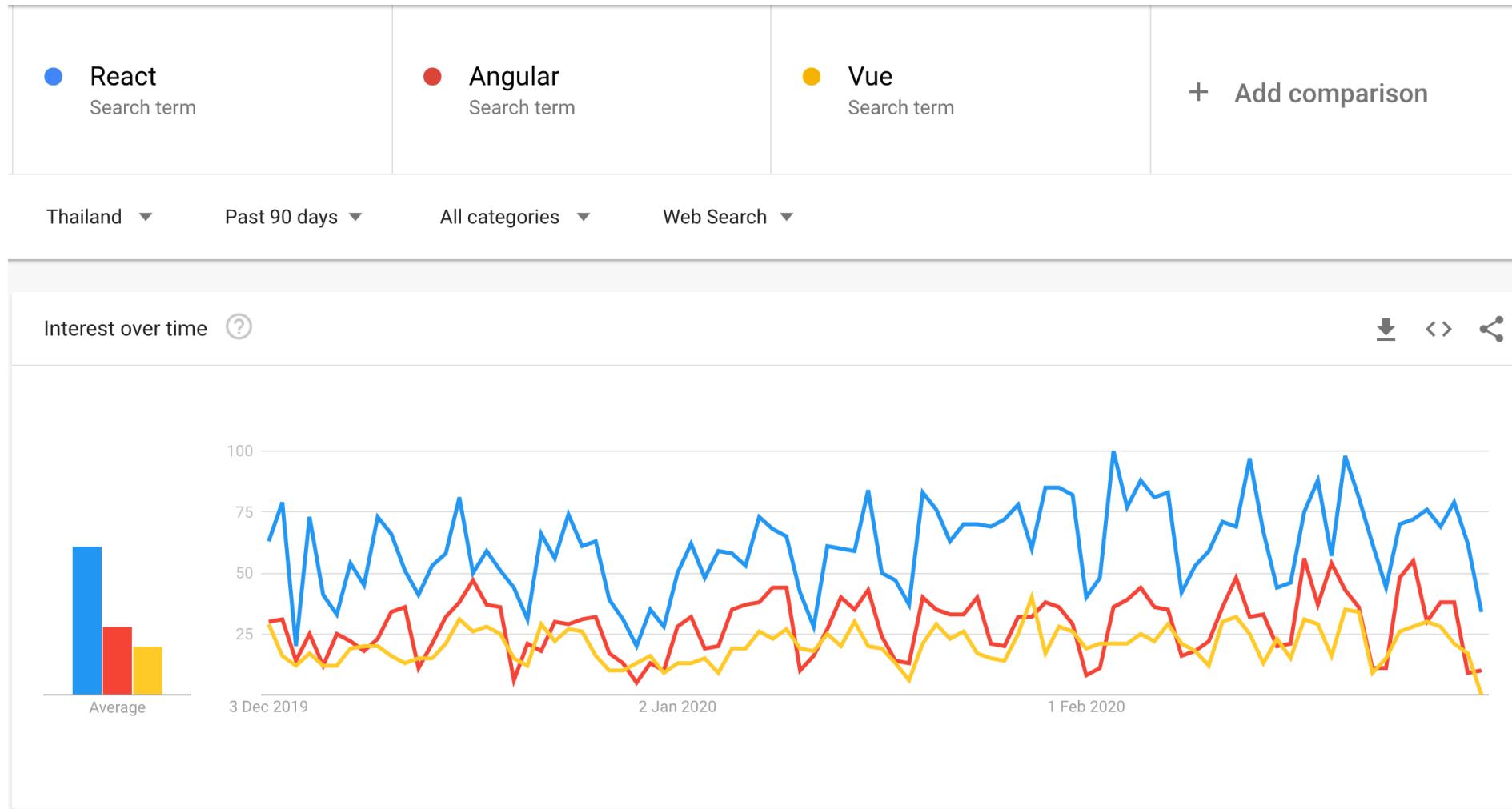
SPAs App

- Server send JS files -> browsers run that files -> show web app



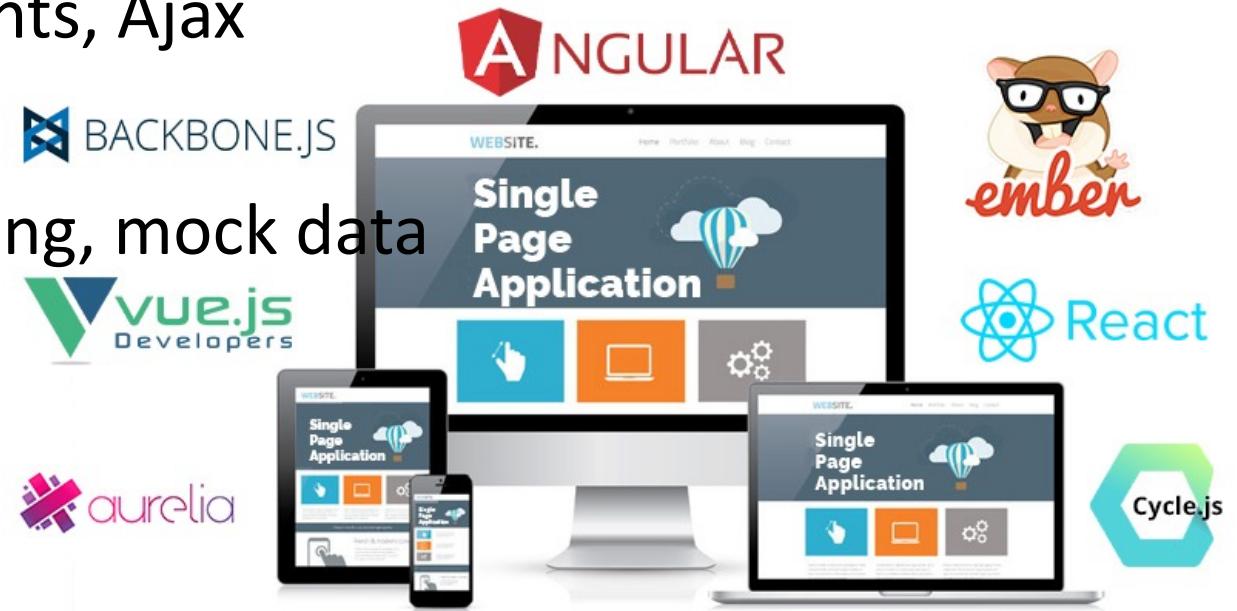
- Pros
 - Rich user interface with many features
 - No refresh when change pages

React & Angular & Vue google tends



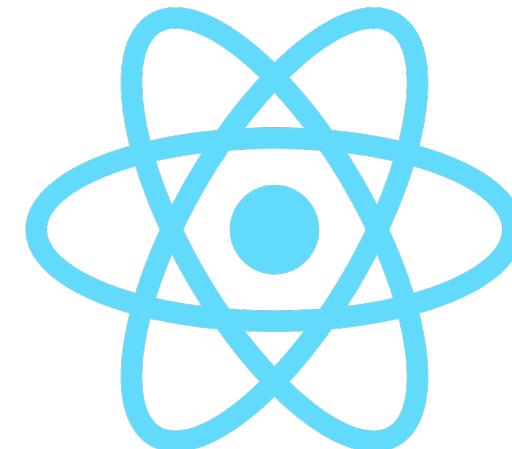
SPAs App

- Basic: Concept data flow, Separate Component, Life Cycle
- Intermediate: State Managements, Ajax
- Advanced: Authentication, Testing, mock data



Compare

- React, Easy to understand (Just React) Biggest community, developed by Facebook
- Angular, complete solution, no need other dependency package, default with typescript, developed by Google
- Vue, Mix Pros from React & Angular, easier to learn, Most starred on Github



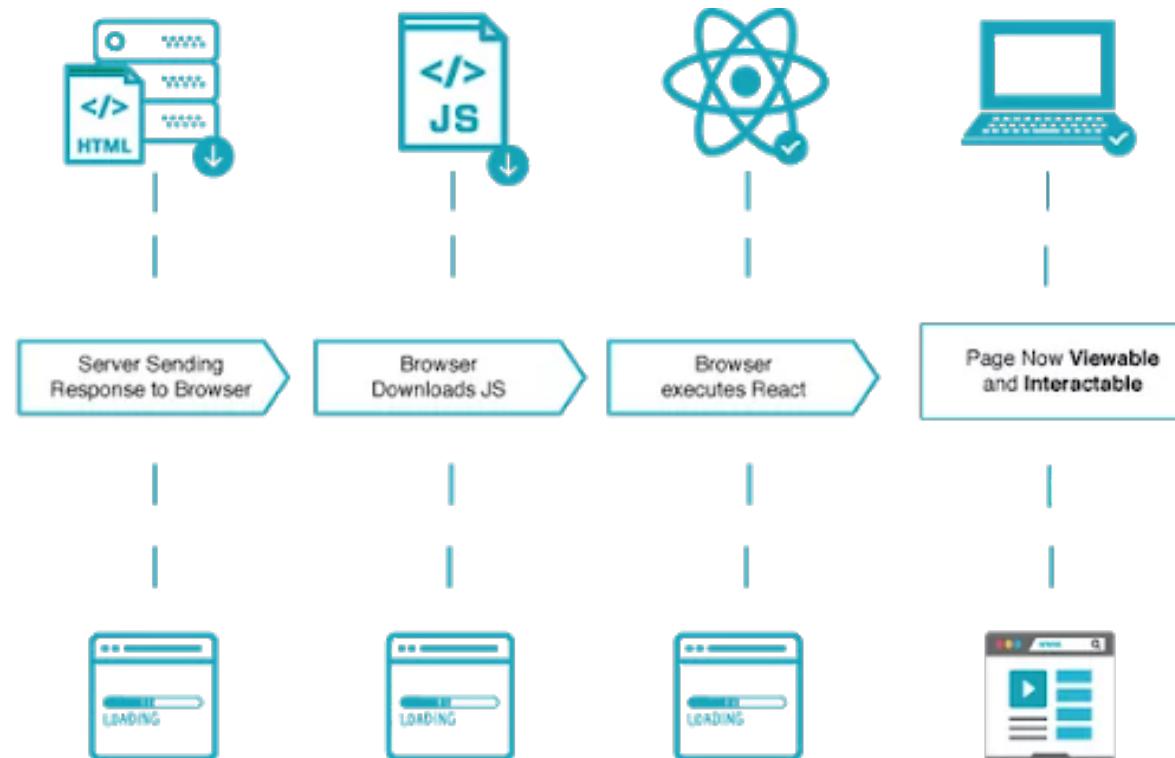
TypeScript change the frontend world

- Code easier to understand Less bugs
- Text editor, IDE efficient guide
- Which Framework supports
 - Angular: Full default supports
 - React: The CLI have option for creating TypeScript Project
 - Vue: Vue3 will fully supports



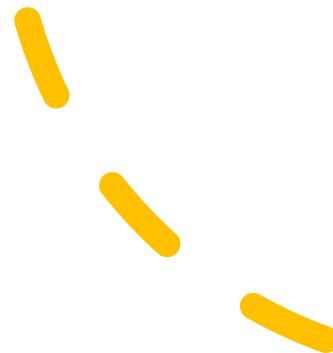
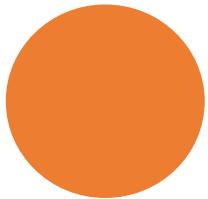
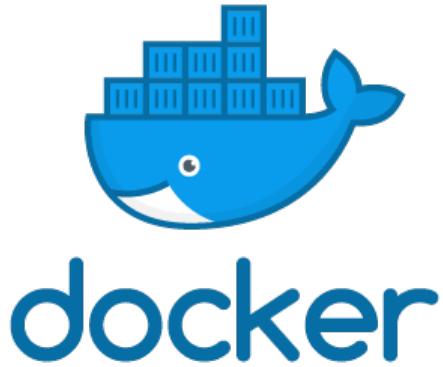
Server Side Rendering?

- React Angular Vue code but render on Server
- WHY -> SEO, Speed
- Step: Server Render React to Html -> send html and js code -> show html on Browsers -> execute js code for functional



Next Level?

- Webpack, bundle JS file
- Babel, JSX -> JS
- Mobile Applications, React Native, Flutter
- Docker, development, integration tests
- Progressive Web App
 - Work on offline
 - Notification
- NodeJS



Future web: Web Assembly (but don't worry)

- Efficient and fast
- C / C++ / Rust / Golang
- Edge Computing
- VR/AR on Web

```
<html>
  <head>
    <meta charset="utf-8"/>
    <script src="wasm_exec.js"></script>
    <script>
      const go = new Go();
      WebAssembly.instantiateStreaming(fetch("main.wasm"), go.importObject);
      go.run(result.instance);
    </script>
  </head>
  <body></body>
</html>
```



