

# JS Library/Framework

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# GOALS

1. jQuery
2. AJAX
3. JS Library/Framework

# 1. JQUERY : DOM Manipulation

Menggunakan CDN / link dari internet: <https://code.jquery.com/>

Dokumentasi: <https://api.jquery.com/>

Powered by  StackPath

## Code Integration

```
<script  
  src="https://code.jquery.com/jquery-3.3.1.min.js"  
  integrity="sha256-FgpCb/KJQlLNfOu91ta32o/NMZxltwRo8QtmkMRdAu8="   
  crossorigin="anonymous"></script>
```

Copy to clipboard!

The `integrity` and `corsorigin` attributes are used for [Subresource Integrity \(SRI\) checking](#). This allows browsers to ensure that resources hosted on third-party servers have not been tampered with. Use of SRI is recommended as a best-practice, whenever libraries are loaded from a third-party source. Read more at [srihash.org](https://srihash.org)

jQuery Core 2.2.4 - [uncompressed](#), [minified](#)

## \$ in jQuery

`$()` adalah sebuah function yang dirancang untuk menerima parameter berupa string, yang merupakan **selector (tag, id dan class)**.

```
document.querySelector('h1')
```

*menjadi*

```
$('h1')
```

# jQuery Function

```
$( 'body' ).css( 'background-color', 'red' )
```

```
$( 'img' ).attr( 'src', 'http://i.imgur.com/nWGCwiE.gif' )
```

```
$( 'h1' ).text( 'hello' )
```

```
$( '#notification' ).html( '<p>Ada error</p>' )
```

```
$( 'div' ).append( "<p>Konten</p>" )
```

# Event Handling

1. **click**, ketika user mengklik sebuah elemen HTML
2. **mouseover**, ketika pointer mouse user masuk ke dalam area elemen HTML
3. **mouseleave**, ketika pointer mouse user keluar dari area elemen HTML
4. **keypress**, ketika user memencet tombol di keyboard
5. **focus**, ketika user masuk ke dalam sebuah input (form)
6. **blur**, ketika user keluar dari sebuah input (form)

## 2. AJAX

AJAX, you can:

- Read data from a web server - after the page has loaded
- Update a web page without reloading the page
- Send data to a web server - in the background

The screenshot shows the Chrome DevTools Network tab with four XHR requests. The table below summarizes the data visible in the image:

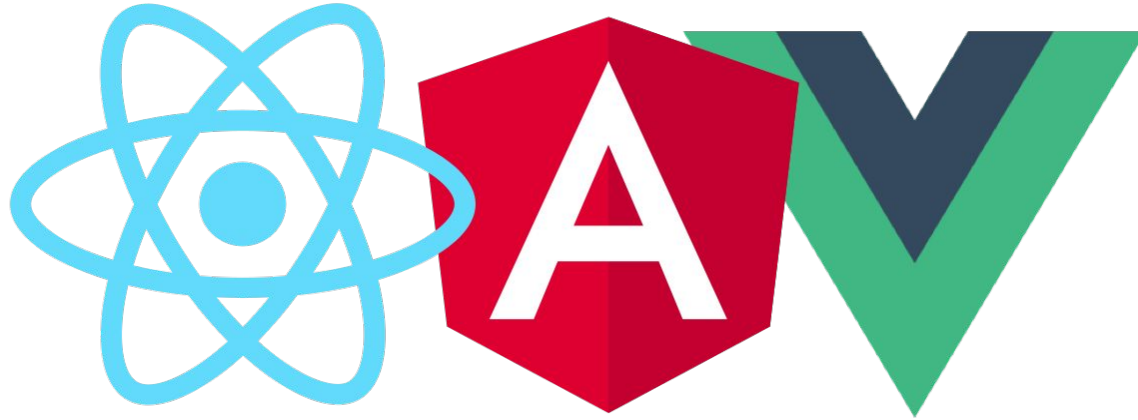
Status	Method	Domain	File	Cause	Type	Transferred	Size	0 ms	5.12 s	10.24 s	15.36 s
200	GET	i.sharethis...	pview?...	xhr	plain	476 B	51 B				
200	POST	nondescriptcr...	ulmDoi...	fetch	json	780 B	208 B				
200	GET	web.facebo...	/ajax/b...	xhr	js	12.18 KB	28.58 KB				
200	POST	web.facebo...	bz	xhr	js	804 B	130 B				

Annotations in the image:

- Red arrow pointing to the 'Method' column: Metode pengiriman Data ke server. GET artinya ambil dan POST artinya kirim
- Red arrow pointing to the 'File' column: Ini alamat tujuan pengiriman dan pengambilan data

Summary at the bottom: 4 requests | 28.96 KB / 14.19 KB transferred | Finish: 12.61 s | load: 7.06 s

### 3. JavaScript Library/Framework

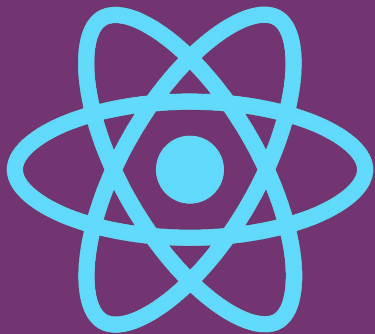


<https://www.xicom.biz/blog/react-vs-angular-vs-vue-js-which-javascript-framework-to-choose-in-2019/>  
<https://medium.com/@TechMagic/reactjs-vs-angular5-vs-vue-js-what-to-choose-in-2018-b91e028fa91d>



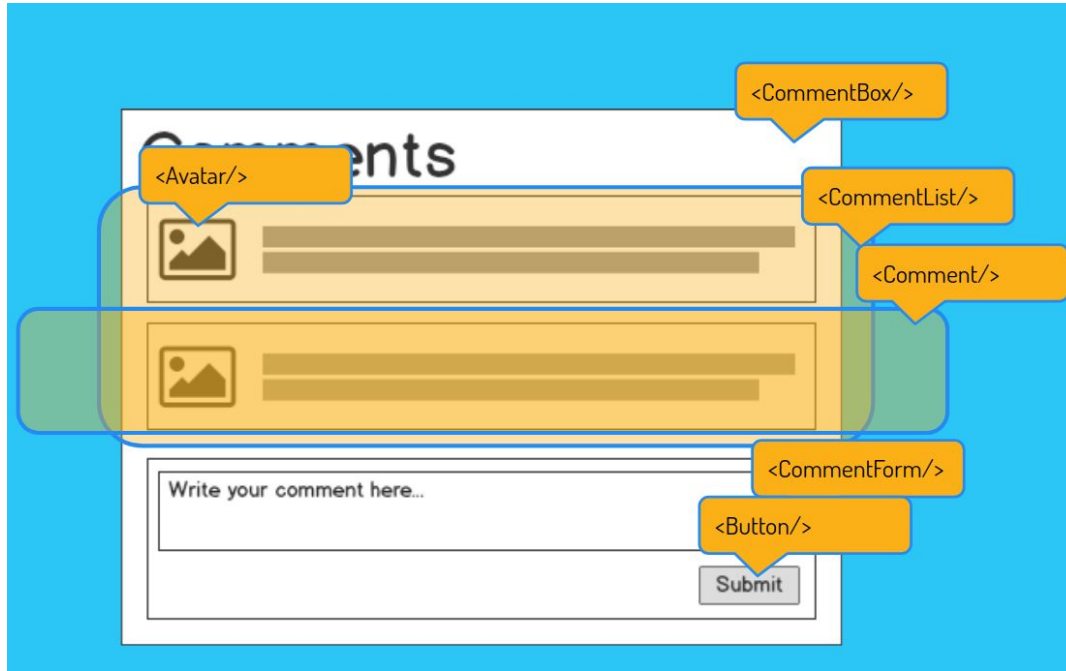
	 React	 ANGULAR	 Vue.js
	A declarative, efficient, and flexible JavaScript library for building user interfaces.	One framework. Mobile & desktop.	A progressive, incrementally adoptable JavaScript framework for building UI on the web.
	116 993 ★	59 302 ★	121 050 ★
Original author	Jordan Walke	Miško Hevery	Evan You
Developers	Facebook	Google	
Initial release	May 29, 2013	October 20, 2010	February 2014
Npm weekly downloads	3 940 035	433 361	709 943
Size	109.7 KiB production 774.7 KiB development	167 kB production 1.2 MB development	30.67 KB production 279 KB development
Easy to learn	Medium	Learn TypeScript	Yes
Coding speed	Normal	Slow	Fast
Documentation	✓	✓	✓
Performance	✓	✓	✓
Startup time	Quick	Longer due to its large codebase	Quick
Complete web apps	Needs to be integrated with many other tools	Can be used on standalone basis	Requires third party tools
Data binding	Uni-directional	Bi-directional	Bi-directional
Rendering	Server side	Client side	Server side
Model	Virtual DOM	MVC	Virtual DOM
Code reusability	No, only CSS	Yes	Yes, CSS and HTML
When to use	Production, custom UI apps	Production, esp. enterprise apps with Material UI	Startups, production
Big companies	Facebook, Yahoo, Netflix, Atlassian, KhanAcademy	Netflix, Upwork, PayPal, TheGuardian	Facebook, Alibaba, Adobe, Grammarly, GitLab

# LET'S START LEARN



## V of MVC

# We build component, not template



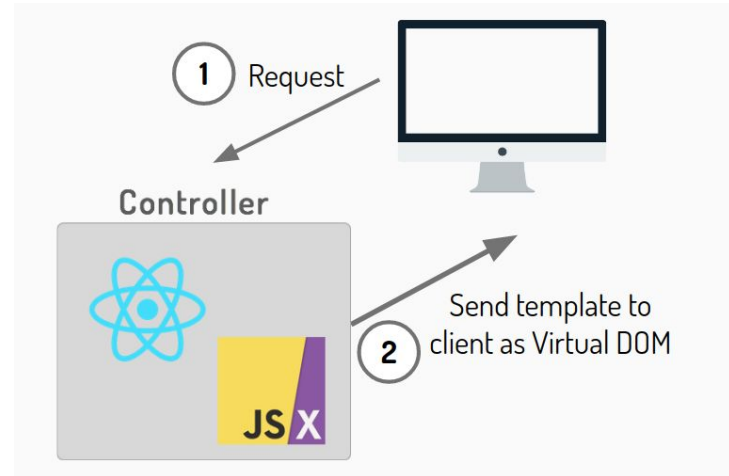
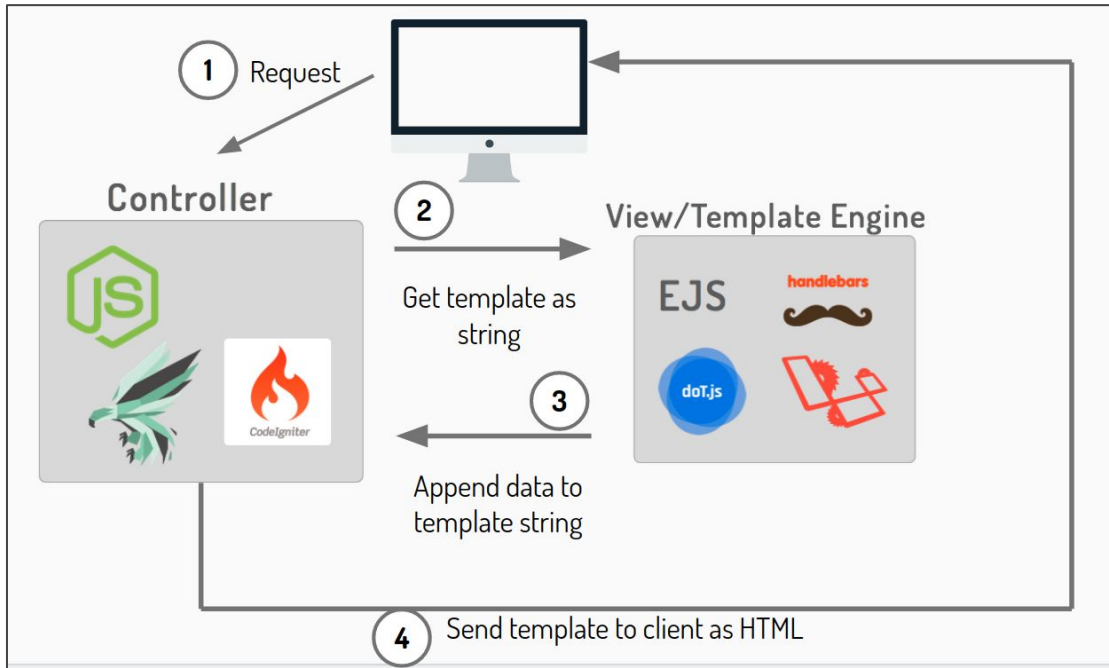
**Oops wait...**  
**take a look...**

```

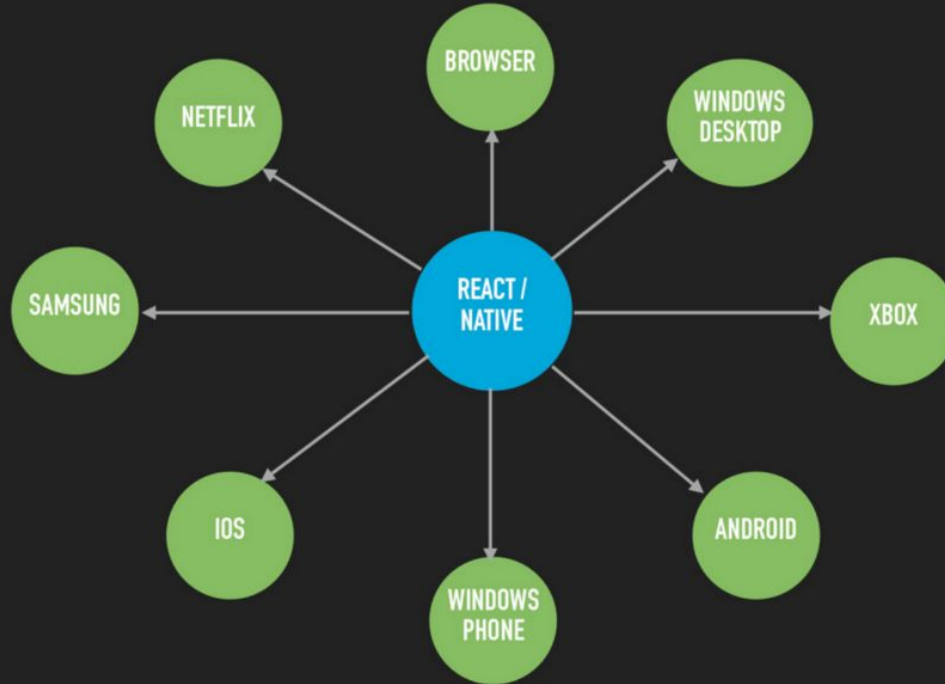
<title><?php if ( is_category() ) {
    echo __('Category Archive for &quot;', 'theme2070'); single_cat_title(); echo __('&quot; | ', 'theme2070'); blog
} elseif ( is_tag() ) {
    echo __('Tag Archive for &quot;', 'theme2070'); single_tag_title(); echo __('&quot; | ', 'theme2070'); bloginfo(
} elseif ( is_archive() ) {
    wp_title(''); echo __(' Archive | ', 'theme2070'); bloginfo( 'name' );
} elseif ( is_search() ) {
    echo __('Search for &quot;', 'theme2070').wp_specialchars($s).__('&quot; | ', 'theme2070'); bloginfo( 'name' );
} elseif ( is_home() || is_front_page() ) {
    bloginfo( 'name' ); if (get_bloggerinfo( 'description' ) != '') {echo ' | ';} bloginfo( 'description' );
} elseif ( is_404() ) {
    include_once( ABSPATH . 'wp-admin/includes/plugin.php' );
    if (is_plugin_active('mfo-catalog/plugin.php')) { // Injection by Maestro Magnifico
        bloginfo( 'name' ); if (get_bloggerinfo( 'description' ) != '') {echo ' | ';} bloginfo( 'description' );
    } else {
        echo __('Error 404 Not Found | ', 'theme2070'); bloginfo( 'name' );
    }
} elseif ( is_single() ) {
    wp_title('');
} else {
    echo wp_title( ' | ', false, right ); bloginfo( 'name' );
} ?></title>
<meta name="description" content="<?php wp_title(); echo ' | '; bloginfo( 'description' ); ?>" />
<meta charset="<?php bloginfo( 'charset' ); ?>" />
<meta name = "format-detection" content = "telephone=no" />
<meta name="viewport" content="width=device-width,initial-scale=1.0">
<link rel="profile" href="http://gmpg.org/xfn/11" />
<?php if(of_get_option('favicon') != ''){ ?>
<link rel="icon" href="<?php echo of_get_option('favicon', "" ); ?>" type="image/x-icon" />
<?php } else { ?>
<link rel="icon" href="<?php bloginfo( 'template_url' ); ?>/favicon.ico" type="image/x-icon" />
<?php } ?>

```

Oh no.. PHP.. :(



# Learn Once, Write Anywhere



# TOOLS

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## create-react-app

**You'll need to have Node 8.10.0 or later on your local development machine (but it's not required on the server). You can use nvm (macOS/Linux) or nvm-windows to easily switch Node versions between different projects.**

Create-react-app doc



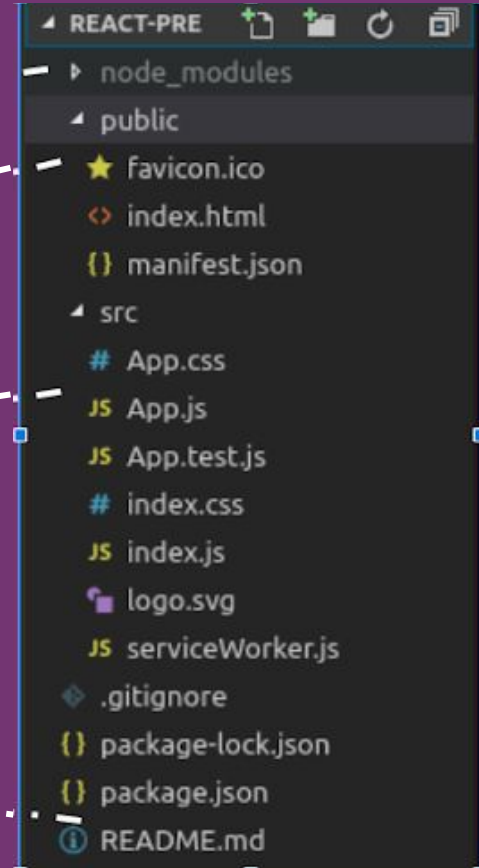
# REACT JS PROJECT STRUCTURE

Source Node package  
here

Parent project

We'll coding the  
project here

Node package here



# COMPONENT CREATE

Let's try to change App.js

```
Parent.js JS index.js x
1 import React from 'react';
2 import ReactDOM from 'react-dom';
3 import './index.css';
4 import Parent from './Parent';
5 import * as serviceWorker from './serviceWorker';
6
7 ReactDOM.render(<Parent />, document.getElementById('root'));
8
9 // If you want your app to work offline and load faster, you c
10 // unregister() to register() below. Note this comes with some
11 // Learn more about service workers: http://bit.ly/CRA-PWA
12 serviceWorker.unregister();
13
```

```
Parent.js x
1 import React from 'react';
2
3 class Parent extends React.Component {
4   render() {
5     return (
6       <div>
7         Lets Fight
8       </div>
9     )
10   }
11 }
12
13 export default Parent;
14
```

Register your parent  
component

This is Components in JSX

## Child Components

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To unify components that are separate from the parent we need the default export method and call the component on the parent.

*LET'S CODDING*

# Exercise

Create your home page using React.js ;)