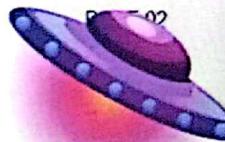
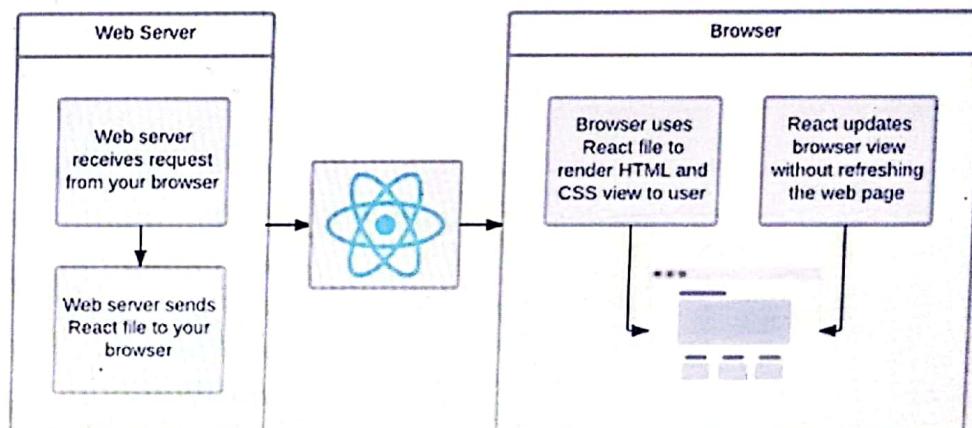


What is React  
History of React,  
When to use React,  
React vs Angular vs Vue

# What is React JS?



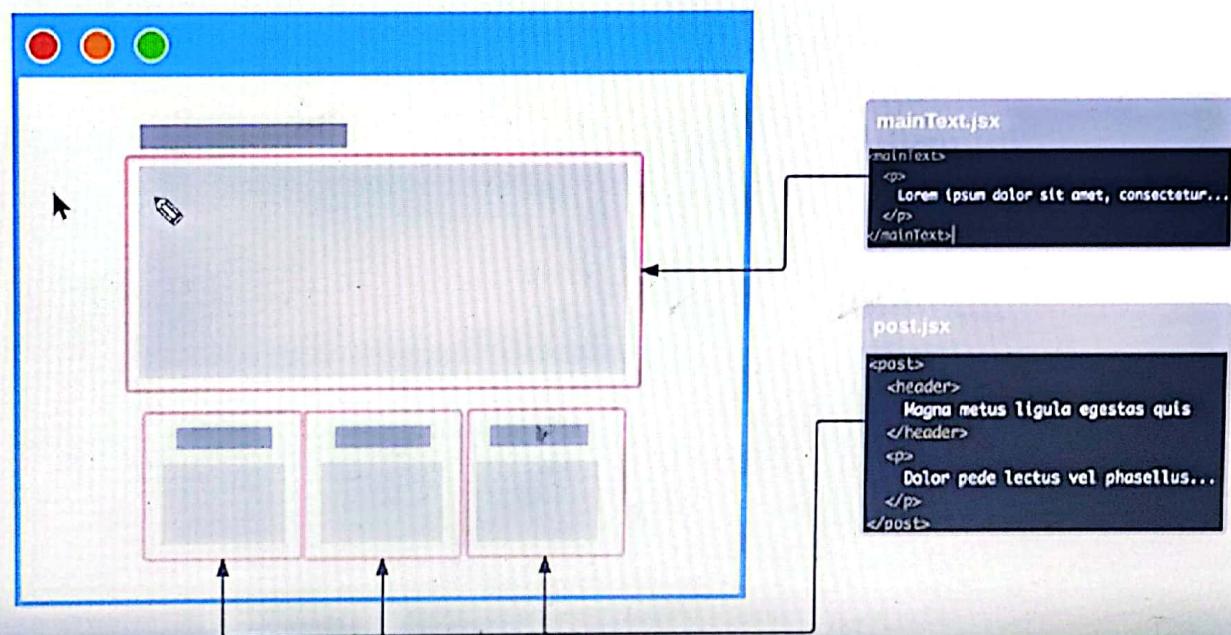
- ReactJS is a JavaScript library for building user interfaces
- ReactJS is declarative, efficient, and flexible
- It is fast and component-based
- It was initially developed and maintained by Facebook



# More about ReactJS

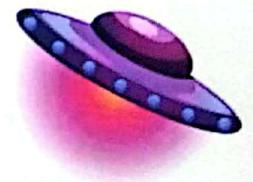
PAGE 03

React breaks web elements down into reusable components making it easy to manage complex web interfaces.



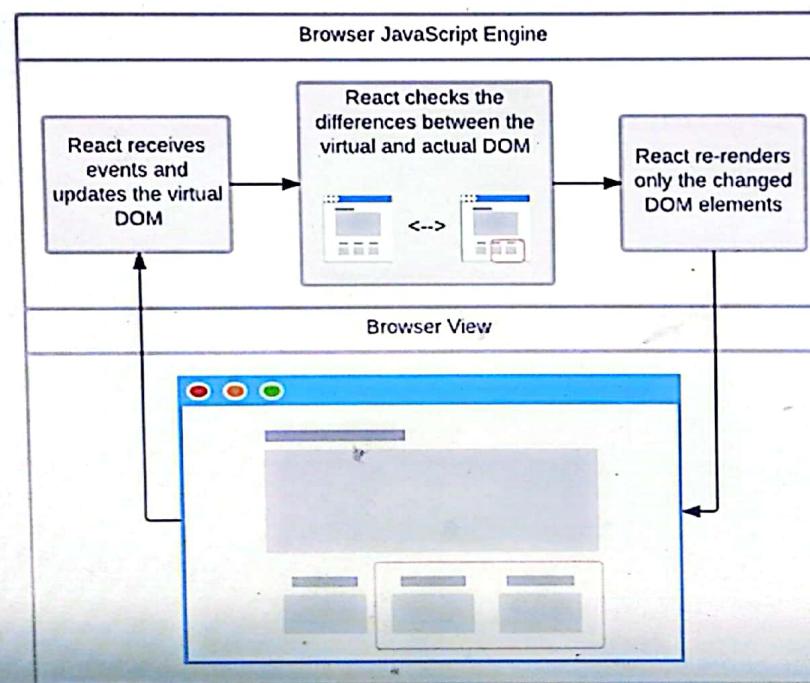
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# More about ReactJS



React's Virtual DOM is a JavaScript representation of the actual DOM. When updates are made React compares the current DOM to the virtual DOM and only updates the differences between the two.

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# History of React

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## 2010 - The first signs of React

Facebook introduced xhp into its php stack and open sourced it. Xhp allowed creating composite components. They introduced this syntax later in React.

## 2011 - An early prototype of React

Jordan Walke, a software engineer at facebook, created FaxJS, the early prototype of React - shipped a search element on Facebook.

## 2012 - Something new had started at Facebook

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Facebook Ads became hard to manage, so Facebook needed to come up with a good solution for it. Jordan Walke worked on the prototype and created React. Then, Instagram was acquired by Facebook.



# History of React

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## 2013 - The year of the Big Launch

- Jordan Walke introduced React. React gets open sourced.
- React (by Facebook) is available on JSFiddle.
- Open sourced React in the: JS Conf
- Pete Hunt: Rethink Best Practices

# History of React

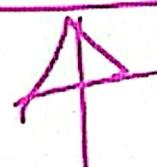
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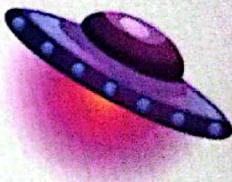


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# History of React



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## 2014 - The year of Expansion

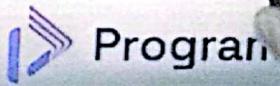
- React gradually gained its reputation, started to go through to 'early majority' of its potential users
- React Developer Tools becomes an extension of the Chrome Developer Tools
- Atom was introduced - A hackable text editor for the 21st Century
-  ReactiveX.io emerged
- The Release of React Hot Loader. React Hot Loader is a plugin that allows React components to be live reloaded without the loss of state
- PlanOut 0.5 (A language for online experiments), which includes a React-based PlanOut language editor was released

 Programming

# History of React

## 2015 – React is Stable

- Flipboard releases React Canvas
- Netflix likes React
- Airbnb uses React
- Facebook released the first version of React Native
- Facebook announced that React Native for iOS is open
- Redux was released by Dan Abramov and Andrew Clark
- The first stable version of the new React Developer Tools launched
- React Native for Android was released



# History of React

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## 2016 – React gets mainstream

- The introduction of Mobx
- Draft.js was introduced at React.js
- The introduction of React Storybook 
- Introducing React's Error Code System
- The introduction of Blueprint - A React UI toolkit for the web

# History of React

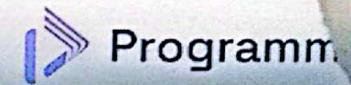
## 2017 - The year of further improvements

- Airbnb introduces their new open source library React Sketch.app
- React Fiber gets open sourced
- React 16: error boundaries, portals, fragments and the Fiber architecture
- React v16.2.0: Improved Support for Fragments

What's next?

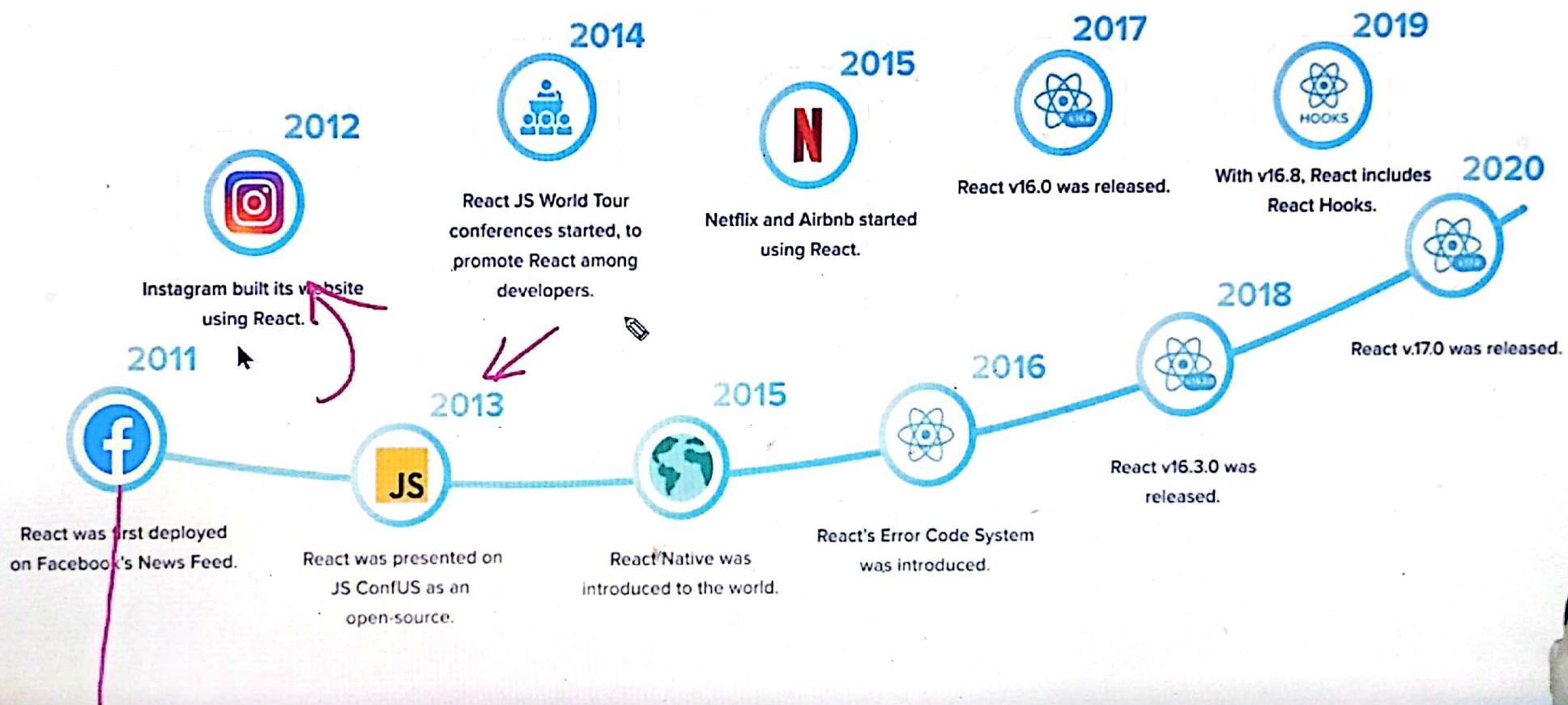
2018 - running

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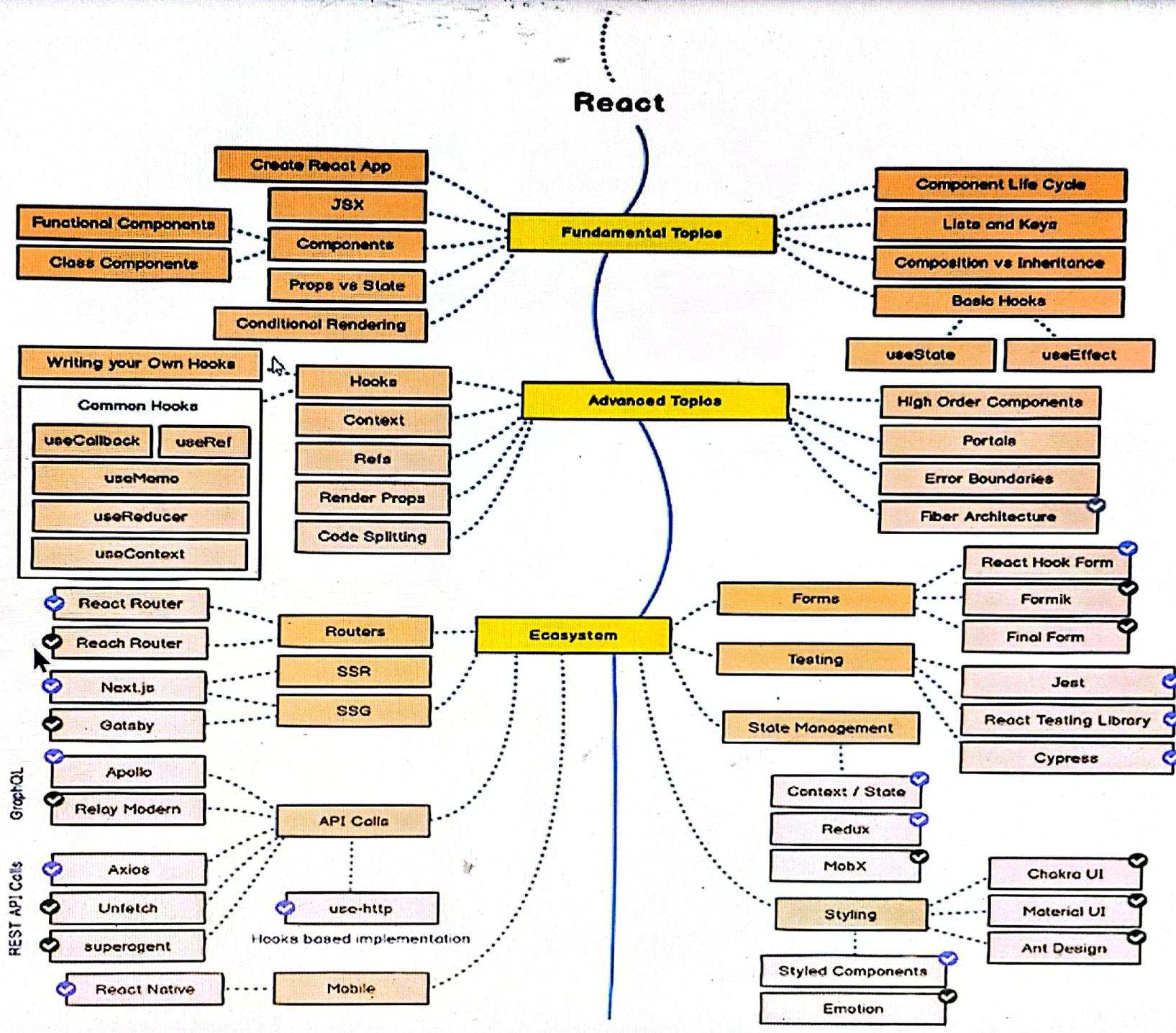


ref: risingstack.com/the-his

# History of React (at a glance)

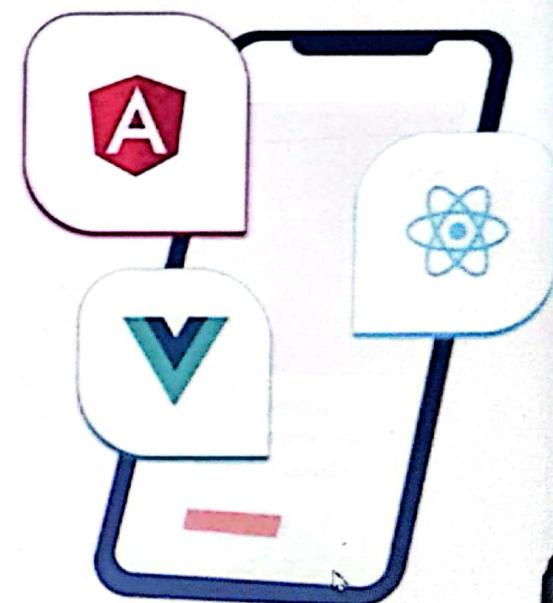


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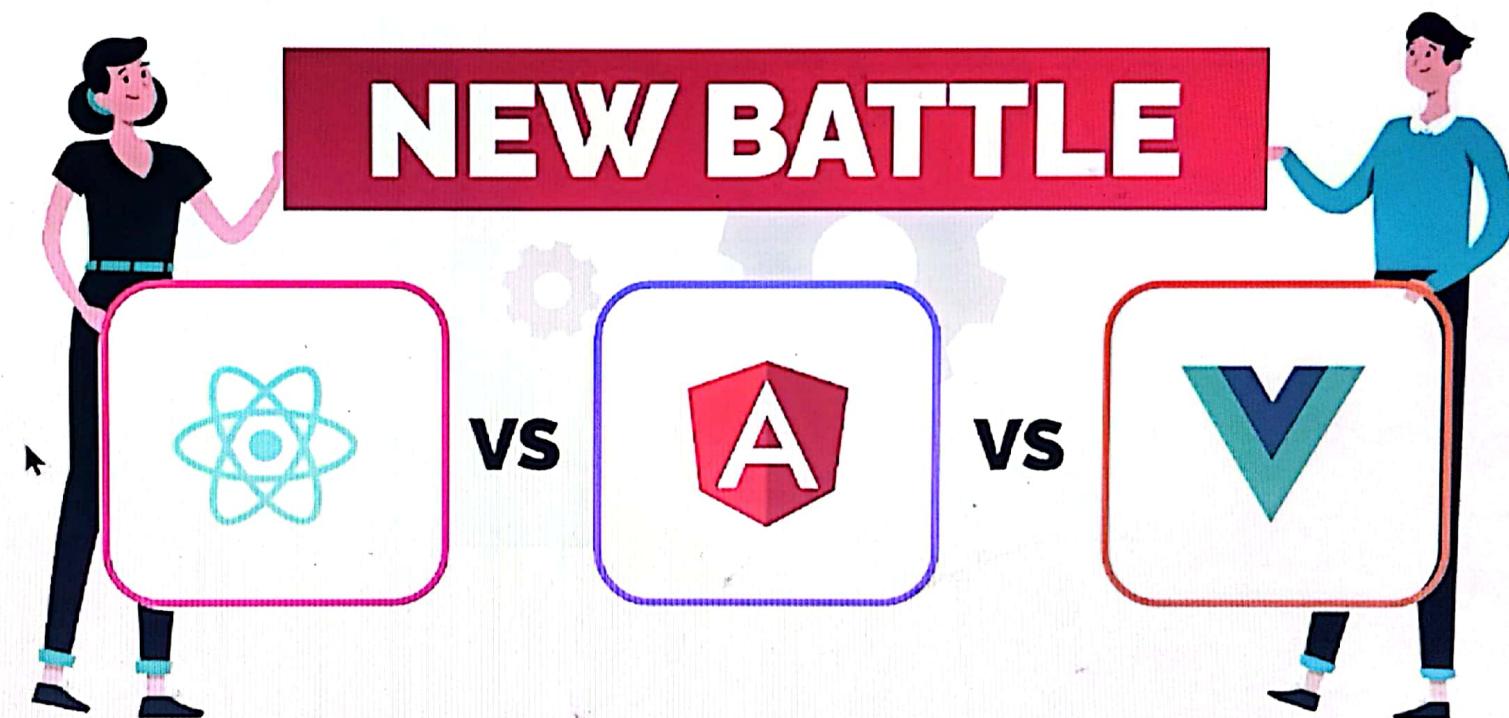


# React VS Angular VS Vue

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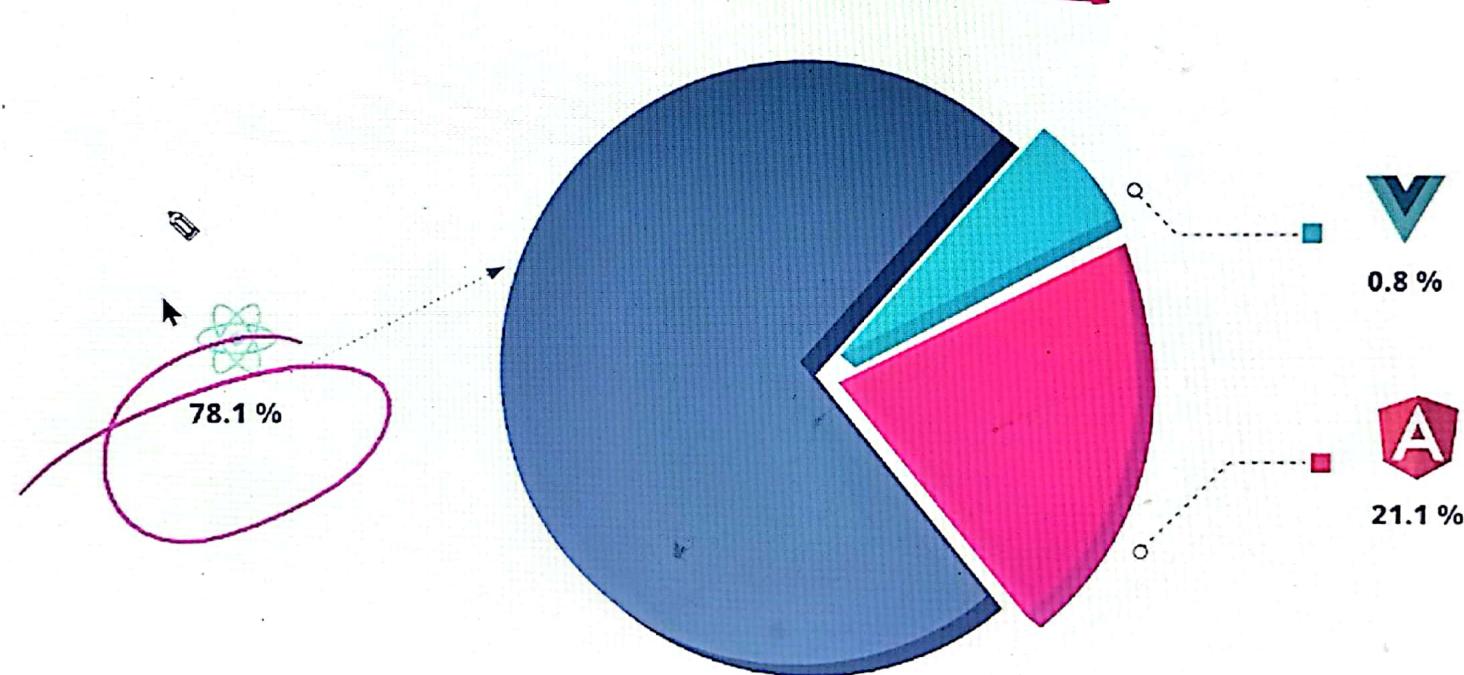


# React VS Angular VS Vue



# React VS Angular VS Vue

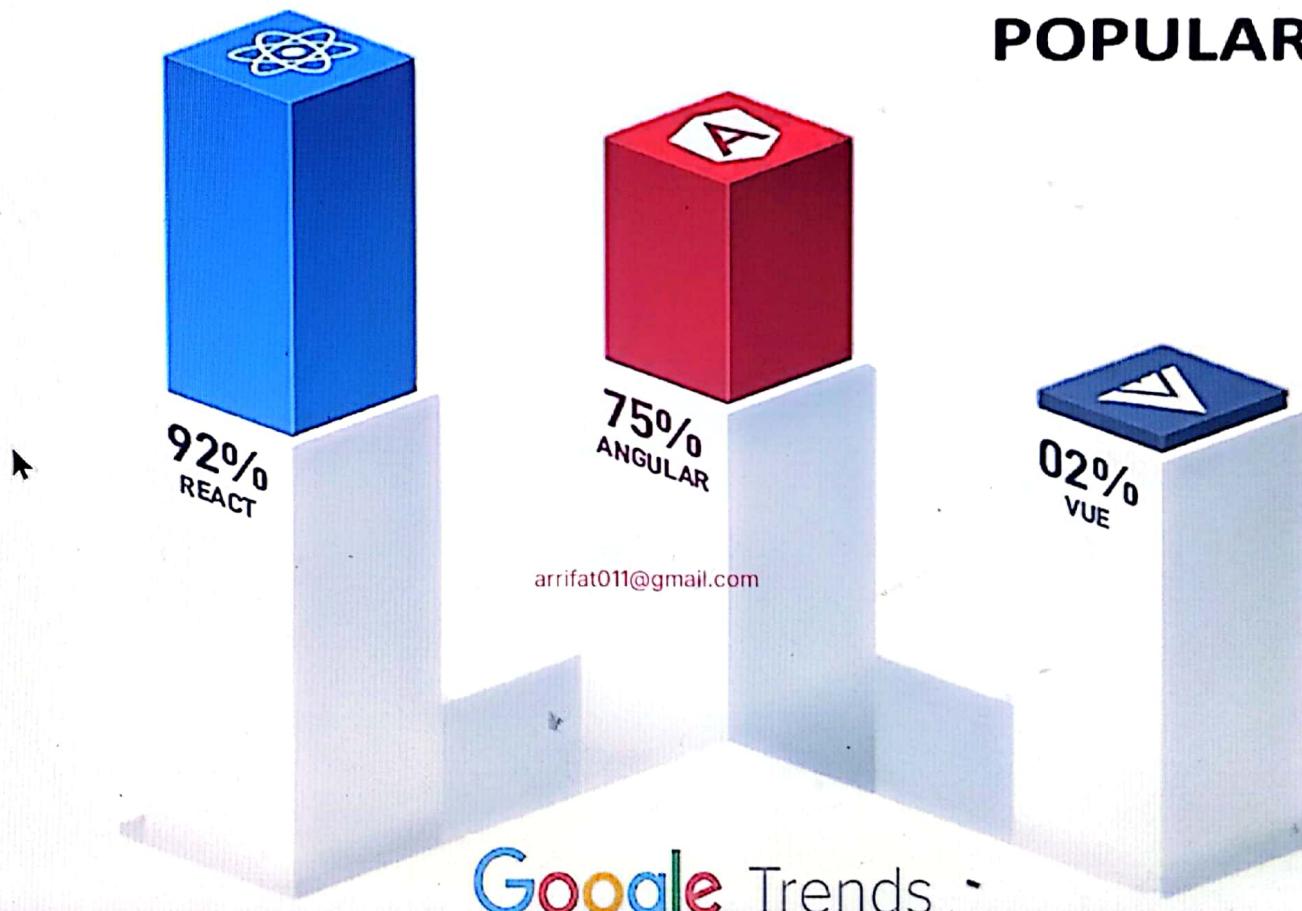
Based on: Number of open positions worldwide requiring specific knowledge of a certain framework for frontend. Analyzed on more than 60,000 job offers at Indeed.com.



ref: [techmagic.co/blog/reactjs-vs-angular-vs-vuejs/](http://techmagic.co/blog/reactjs-vs-angular-vs-vuejs/)

# React VS Angular VS Vue

POPULARITY



# React is in everywhere



Q and A Website

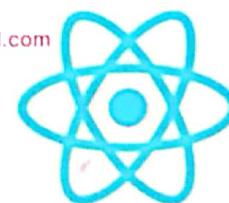


Ecommerce



Social Network

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React



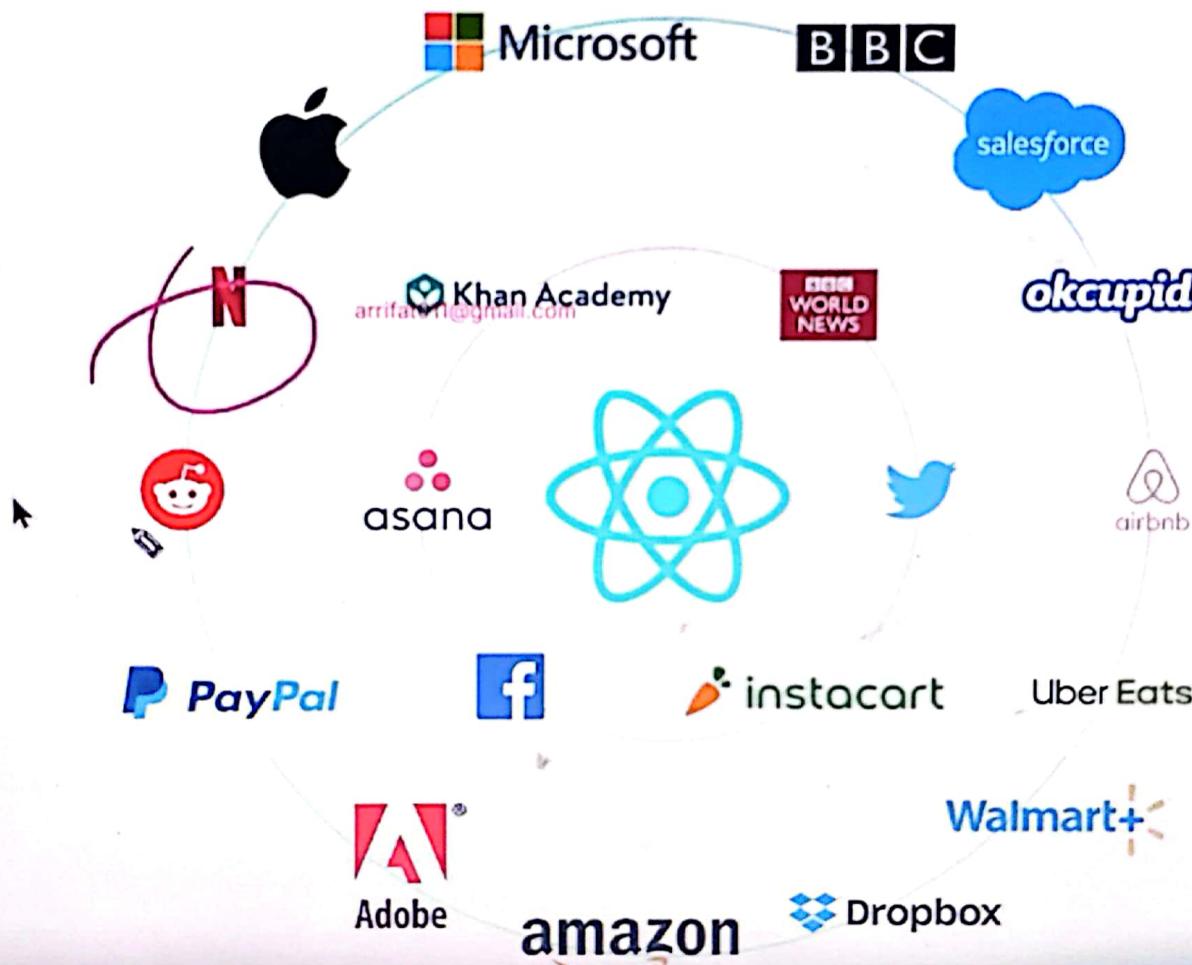
Business websites



Dashboards



# Companies using React



# React VS Angular VS Vue



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# ReactJS VS AngularJS

## Library vs framework =>

- React is a Javascript library, Angular is a complete framework built on TypeScript - a superset of Javascript.
- ReactJS is a smaller piece of the overall puzzle, whereas Angular is a collection of all different puzzle pieces.

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## Architecture =>

- ReactJS is responsible for the 'view' element of application development in a Model-View-Controller (MVC) framework.
- Angular is a complete MVC framework for front-end development.

# ReactJS VS AngularJS

## Templates =>

- The template used by ReactJS is called 'JSX (JavaScript XML)' which combines the JavaScript code and markup in one line of code to create user interfaces efficiently.
- Angular uses templates based on advanced HTML, means you will need to learn the proper HTML syntax in order to be able to write code in Angular.

## Document Object Model =>

- ReactJS maintains a virtual DOM which allows it to be lightning fast.
- Angular has a regular DOM which updates the entire HTML structure every time a new change is made.

# ReactJS VS AngularJS

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## Components =>

- ReactJS is a library for building and rendering components.
- Angular is not only about components, it offers more solutions that simply create components such as ~~routing~~, state management, form validations, and other tools that you need to develop large applications.



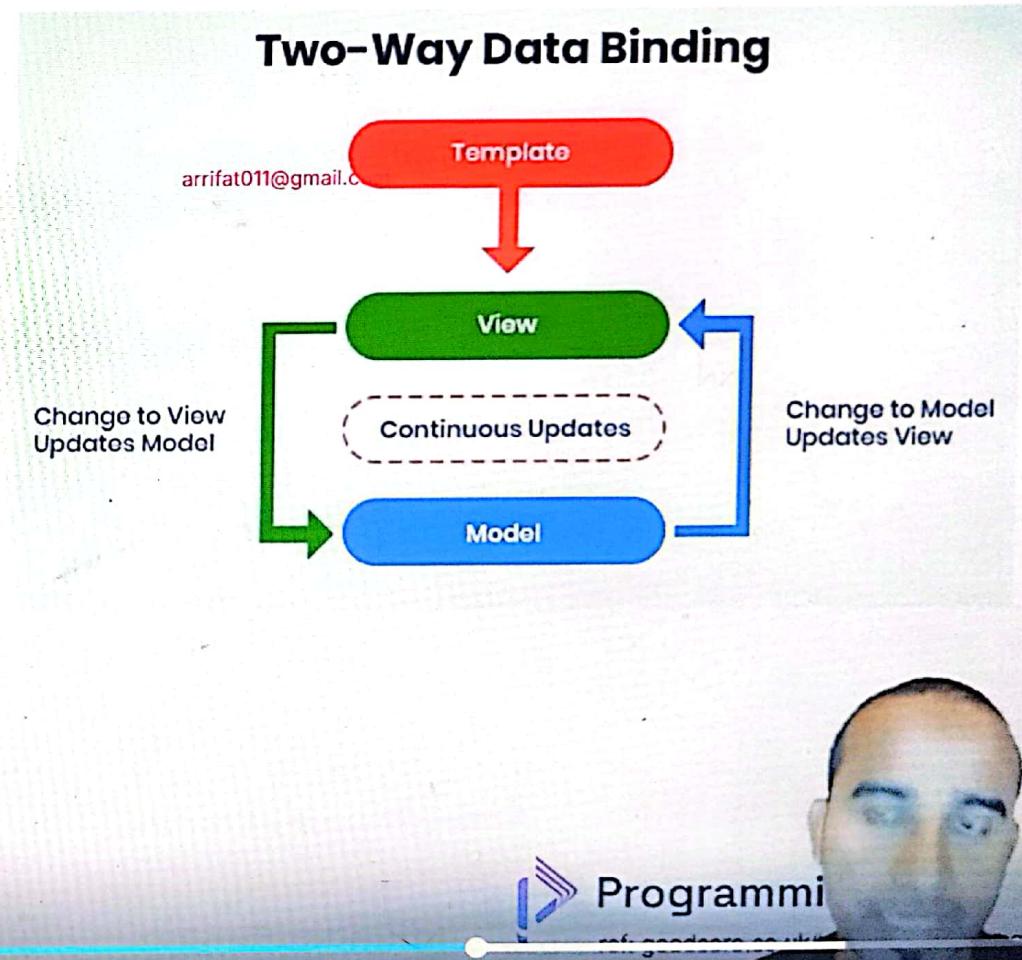
## Performance =>

- The virtual DOM feature of ReactJS allows its application to virtually update the changes without rewriting the entire HTML document; this renders updates much quicker.
- The regular DOM feature of Angular makes the application slow in performance, especially when compared to applications built using ReactJS.

# ReactJS VS AngularJS

## Data binding =>

- ReactJS supports unidirectional data binding, or what is commonly known as one-way data binding, means that data flows one way while synchronising the Model and View.
- Angular data binding model is bi-directional, meaning that there is a two-way flow of data between the Model and the View.



# ReactJS VS AngularJS

## Scalability =>

- React applications requires you to rely on third-party tools and supporting integrations external to ReactJS.
- Angular includes additional tools like routing, state management, HTTPS, etc. which help you build large-scale apps, means it comes packed with all the core features that you may require.

## Learning curve =>

- ReactJS uses JSX (Javascript XML), which is fairly easy to learn if you have prior experience with writing code in Javascript.
- A beginner need to familiarise with the Typescript language that Angular uses. He will also need to learn about all the rich topics that Angular comprises of, from components, templates, modules, and other basic concepts to the more complex ones like dependency injections, change detection, and RxJS.

# React VS Angular VS Vue (at a glance)

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ATTRIBUTES	ANGULAR	REACT	VUE.JS
Type	JavaScript framework	Open Source JS Library	Progressive JavaScript Framework
Documentation	✓	✓	✓
Size	167 KB production 1.2 MB development	109.7 KB production 774.7 KB development	30.67 KB production 279 KB development
Easy to learn	Steep (Learn TypeScript)	Moderate	Easy
Coding speed	Slow	Normal	Fast

# React VS Angular VS Vue (at a glance)

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ATTRIBUTES	ANGULAR	REACT	VUE.JS
Performance	✓	✓	✓
Startup time	Longer due to its large codebase	Quick	Quick
Complete web apps	Can be used on standalone basis	Needs to be integrated with many other tools	Requires third party tools
Data binding	Bi-directional	Uni-directional	Bi-directional

# React VS Angular VS Vue (at a glance)

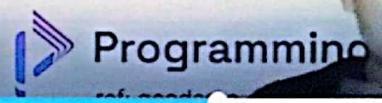
ATTRIBUTES	ANGULAR	REACT	VUE.JS
Rendering	Client side	Server side	Server side
Model	MVC	Virtual	Virtual
Code reusability	Yes	No, only CSS	Yes, CSS & HTML
When to use	Production, esp. enterprise apps with Material UI	Production, custom UI apps	Startups, production

# When to use ReactJS

## Pros

- # ReactJS has a simple design and uses JSX which makes it easy to learn and use, even for beginners.
- # Owing to its virtual DOM, ReactJS offers fast performance for applications.
- # Being a view library, React does not force on the specific architecture of your application.
- # React allows you to tailor your stack as per your own project requirements by giving you the freedom to choose additional libraries.
- # It is a more mature and older tool than Angular. Therefore, it has a larger user base along with wider community support.
- # React is backed and supported by Facebook, which makes it a top choice for many leading businesses. See a list of popular companies that use ReactJS below.

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# When to use ReactJS

## Cons

# React is not a full-scale framework. Using React means you will have to use third-party community-managed modules for routing, state management, form validation, etc. when developing applications.

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# React rolls out frequent updates, making it difficult to maintain the code and keep the documentation up-to-date.



# When to use **AngularJS**

## Pros

- # It offers all the features within its platform. Therefore, you do not need to use third-party community-managed modules.
- # Angular CLI is a helpful feature to get you started with projects. It automates the development process, making every step easier for you.
- # Bi-directional data-binding used by Angular keeps the data flow simple and easy.
- # Angular offers extensive documentation and support  to help you with all the necessary information.
- # Angular is supported by Google, which makes it a trustworthy framework with potential for growth and innovation. A number of leading companies rely\* on Angular for their front-end development need, check out the list below.

▶ Programmi

# When to use AngularJS

## Cons

- # You need to learn TypeScript and have a thorough knowledge of template syntax to be able to use Angular.
- # Some of the Angular features such as dependency injections and RxJS are sophisticated and require a more professional approach to be implemented. Therefore, it has a steeper learning curve.
- # Applications built using Angular offer a comparatively slower performance due to the regular DOM used by Angular.

# ReactJS popular features

