React

 $\mathsf{A}\mathsf{J}$

Create React App

<u>Create React App</u> is a comfortable environment for **learning React**, and is the best way to start building **a new <u>single-page</u> application** in React.

It sets up your development environment so that you can use the latest JavaScript features, provides a nice developer experience, and optimizes your app for production. You'll need to have Node >= 8.10 and npm >= 5.6 on your machine. To create a project, run:

```
npx create-react-app my-app
cd my-app
npm start
```

Create-react-app

npx

npx create-react-app roject_name>
npm package runner

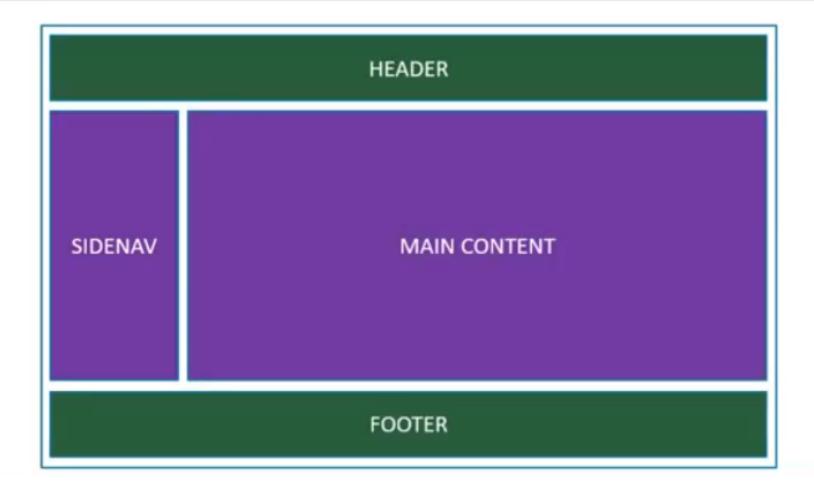
npm

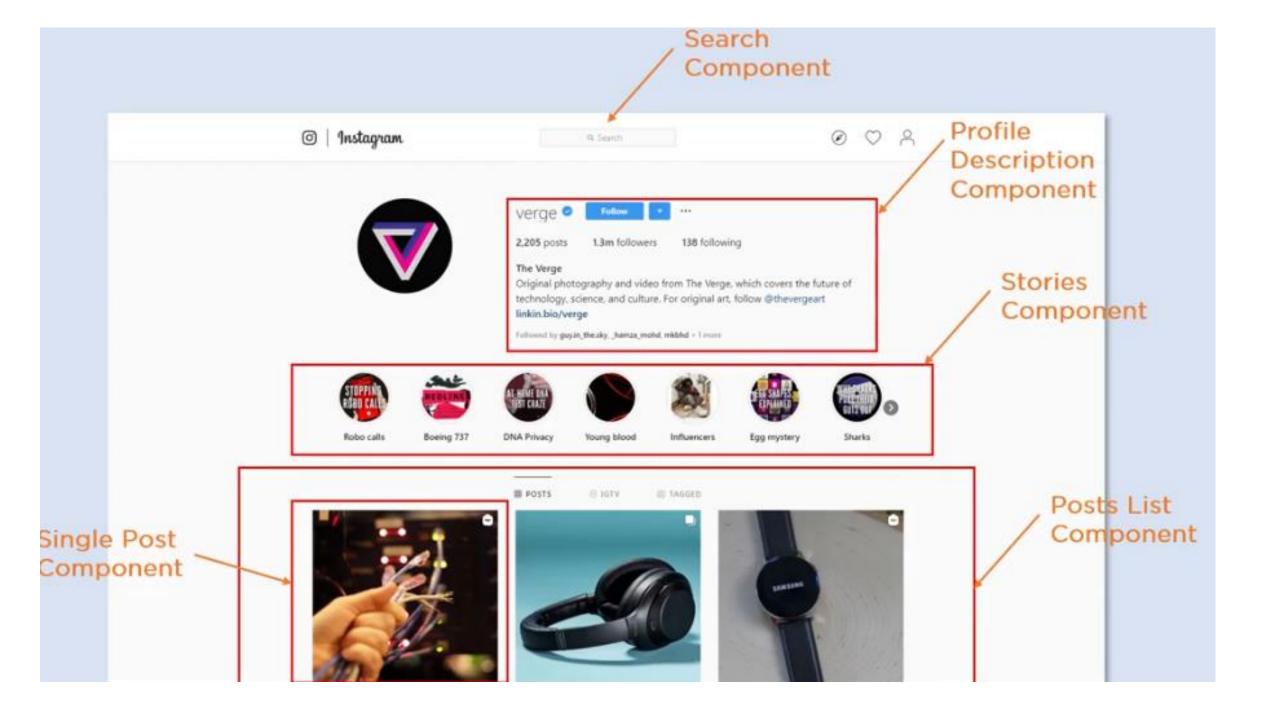
npm install create-react-app -g
create-react-appproject_name>

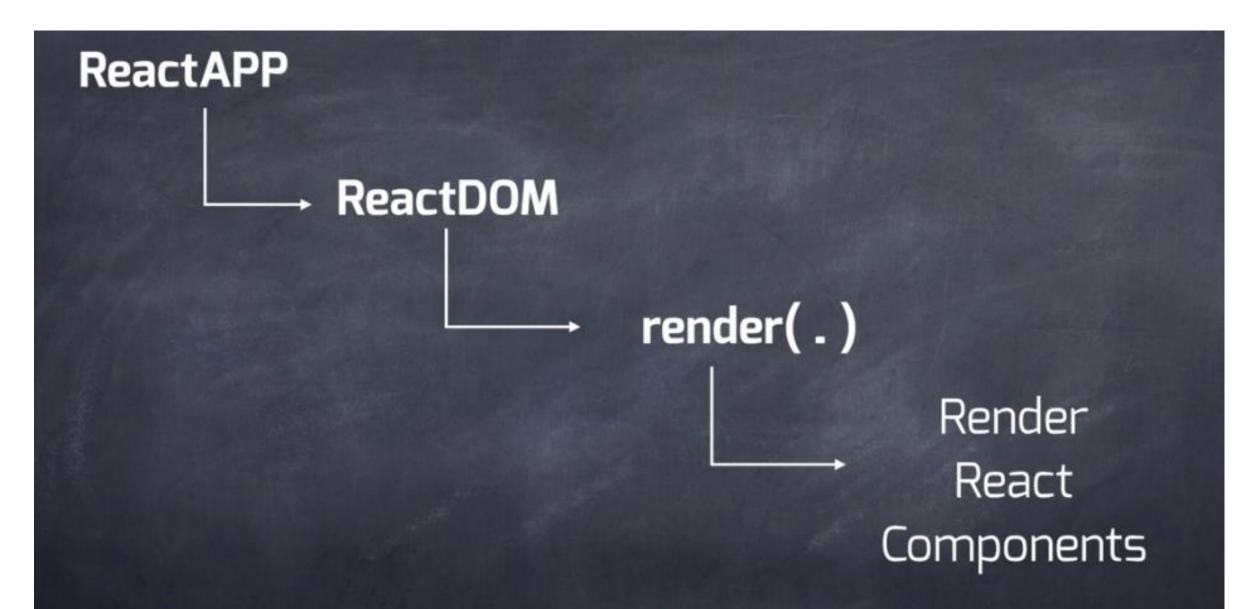
m	y-app
-	— build
ŀ	node modules
ŀ	— public
İ	— favicon.ico
İ	— index.html
İ	└─ manifest.json
ŀ	— src
İ	— App.css
	— App.js
j	— App.test.js
İ	— index.css
İ	— index.js
İ	— logo.svg
İ	L serviceWorker.js
ŀ	— .gitignore
ŀ	— package.json

- build is the location of your final, production-ready build. This directory won't exist until you run npm build or yarn build. The contents of this folder should be ready-to-ship without any interaction on your part.
- node_modules is where packages installed by NPM or Yarn will reside.
- public is where your static files reside. If the file is not imported by your JavaScript application and must maintain its file name, put it here. Files in the public directory will maintain the same file name in production, which typically means that they will be cached by your client and never downloaded again. If your file does not have a filename that matters such as index.html, manifest.json, or robots.txt you should put it in src instead.
- src is where your dynamic files reside. If the file is imported by your JavaScript application or changes contents, put it here. In order to make sure the client downloads the most up-to-date version of your file instead of relying on a cached copy, Webpack will give changed files a unique file name in the production build. This allows you to use simple, intuitive file names during development, such as banner.png instead of banner-2019-03-01-final.png. You never have to worry about your client using the outdated cached copy, because Webpack will automatically rename banner.png to banner.unique-hash.png, where the unique hash changes only when banner.png changes.

Component Based Architecture







Component Types

Stateless Functional Component

```
JavaScript Functions
function Welcome(props) {
  return <h1>Hello, {props.name}</h1>;
```

Stateful Class Component

```
Class extending Component class
Render method returning HTML
class Welcome extends React.Component {
  render() {
   return <h1>Hello, {this.props.name}</h1>;
```