

# Let's make a todo list app with React Native!

First workshop!

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## Streaming

- <https://umn.zoom.us/my/adc.workshop>
- Recordings will be posted as unlisted YouTube videos as linked at <https://adcumn.org/meetings>

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## In-person

- Tuesdays 6-7pm
- Tate Hall 120

# Officer openings!

- Workshop instructors

DM us on the discord!

<https://z.umn.edu/ADCdiscord>

We will be following this guide:

<https://github.com/ADC-UMN/todotutorial>. Feel free to go ahead of the workshops at your own pace.

# What is React?

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React is a *web application framework*.

It is *declarative*. The building blocks are *components*, which may be *functional* or *class components*.

# React class components

JS Greeting.js X

JS Greeting.js > ...

```
1 // in Greeting.js
2
3 class Greeting extends React.Component {
4   render() {
5     return (
6       <h1>Hello, {this.props.name}</h1>
7     );
8   }
9 }
```

JS Letter.js X

JS Letter.js > Letter

```
1 // in Letter.js
2 import Greeting from './Greeting'
3
4 class Letter extends React.Component {
5   renderGreeting(name) {
6     return <Greeting name={name} />;
7   }
8
9 }
```



# State

```
JS Birthday.js X
JS Birthday.js > Birthday
1  class Birthday extends React.Component {
2      constructor(props) {
3          super(props);
4          this.state = {
5              age: 0,
6          };
7      }
8
9      render() {
10         return (
11             <h2 onClick={function(){ this.setState({age: this.state.age+1}) }}>
12                 "Yay, birthday #" + this.state.age + "!"
13             </h2>
14         );
15     }
16 }
```

# What is React Native?

React Native allows you to write *cross-platform* React code instead of a *native* codebase for each platform. However, you cannot use HTML. Instead, there are native component libraries for you to use.

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# Built-in components

React Native	Android	iOS	HTML
<code>&lt;View&gt;</code>	<code>&lt;ViewGroup&gt;</code>	<code>&lt;UIView&gt;</code>	<code>&lt;div&gt;</code>
<code>&lt;Text&gt;</code>	<code>&lt;TextView&gt;</code>	<code>&lt;UITextView&gt;</code>	<code>&lt;p&gt;</code>
<code>&lt;Image&gt;</code>	<code>&lt;ImageView&gt;</code>	<code>&lt;UIImageView&gt;</code>	<code>&lt;img&gt;</code>

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See <https://reactnative.dev> for more.

# Getting started

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You should instead use the Expo command line interface (CLI) so that you can build your app locally and upload it for distribution.

# Installing Node.js

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Confirm your installation and Node version with `node -v`.

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Run `npm install -g expo-cli`. You can now create a template for a new project with `expo init` and test it with `expo start`.