React.js Basics

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2011-2016: CTO @ Shareville (acquired by Nordnet Bank)
2012 - Present: Co-Founder @ Will & Skill (Digital Agency)

WILL & SKILL

10+ years developing digital products
5+ years developing fintech products
Built Shareville and integrated it with Nordnet
Real portfolios, real money and real risk
Approx 60 billion SEK and 180K users in 4 countries

VS Code
code.visualstudio.com

Node / NPM
nodejs.org

Yarn
yarnpkg.com

The evolution of the modern web

1

The appetite for well _designed_ and _interactive_ apps caused the emergence of new expectations...

2

With better user experiences comes larger code bases and more complexity!

3

In order to handle complexity we need better tools that are easy to learn and understand while keeping complexity in check

Static Pages
Dynamic Pages (CGI, PHP, ASP)
Ajax
Gmail (First SPA?)
Facebook
Spotify
Netflix

The Browser is the new Operating System

Every major OS provider (Apple, Google, Microsoft) has their own browser.

HTML

jQuery

Backbone

Angular.js

React.js

Angular

Web Components

Core Concepts of a Modern Frontend

Data + **Template** + **Logic**
=
View

Data

Represents the state of the world

```
const data = {name: "Faisal", age: 31}
const carData = {speed: 75, unit: "km/h"}
```

Template

Often the structure of a document where data is inserted or interpolated.

```
const name = "Faisal";
let phrase = `Hello ${name}!`
    // output: Hello Faisal
```

Logic

Actions that are carried out when user interacts with elements on screen.

```
// Add item to cart and calculate total cost
<Button onClick="addToCart(item)">Buy</Button>
```

Data + **Template** + **Logic**
=
View

React solves this problem by introducing the concept of a **Component**
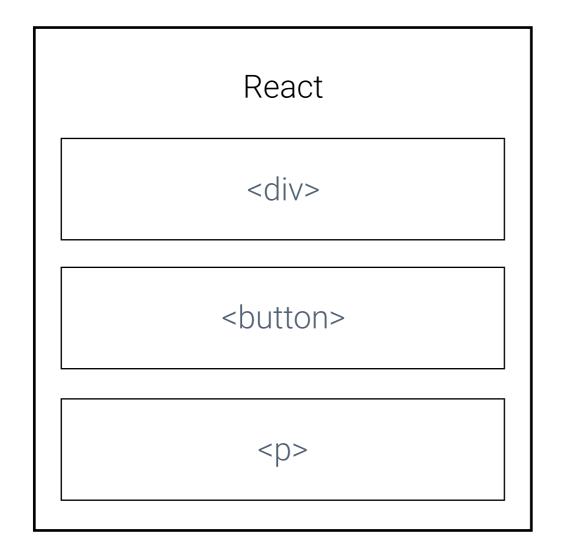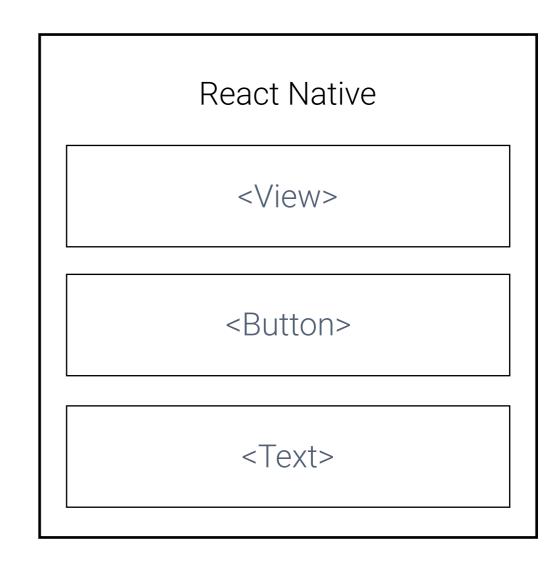
Component

Logic

Template

Data

Every **Component** has to know how to render itself to a screen. So the minimum amount of logic that a **Component** should consist of is a `render()` function

```js
import React from "react";   7.9K (gzipped: 3.3K)

export default props => {
  return <div>Hello World</div>;
};
```

The beautiful thing about this way of constructing your app with **Components** is that You can translate this way of thought across platforms as long as Your **Component** knows how to render itself.
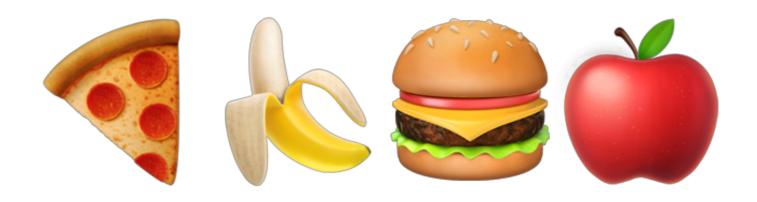
React	React Native
<div>	<View>
<button>	<Button>
<p>	<Text>

Break

1
Joint Coding Session
Our first Component

Review & Feedback

The render() method

Props

State

Our first third party lib
Axios

Axios simplifies the process of communicating between APIs on the web and Your application

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"A great developer knows how to read and understand other people's code"

2
Joint Coding Session
Integrating a third party lib

Review & Feedback

Composition & Best Practices

Smart Components
also known as
Containers

Container

ListComponent

ListItemComponent

ListItemComponent

ListItemComponent

ListItemComponent

The **Container/Component** pattern is used to separate data handling and presentation.

The purpose of a **Container** is to know what data it needs and how to pass the data to its children in a meaningful way

Break

3
Joint Coding Session
Routing & User Input

Review & Feedback

Break

Debugging & Deployment

4
Joint Coding Session
Styling & Optimisation

6
React Basics
Common Mistakes

Why does
`this.setState({...})`
break from time to time?

Why is it not possible to return 2 HTML elements in a render method?

What is the difference between
`functionCall` and `functionCall()`?

Import paths are tricky. How can I understand them better?

Thanks!

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