React
Part 1

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1. Agenda

1. Introduction
2. Hallo World
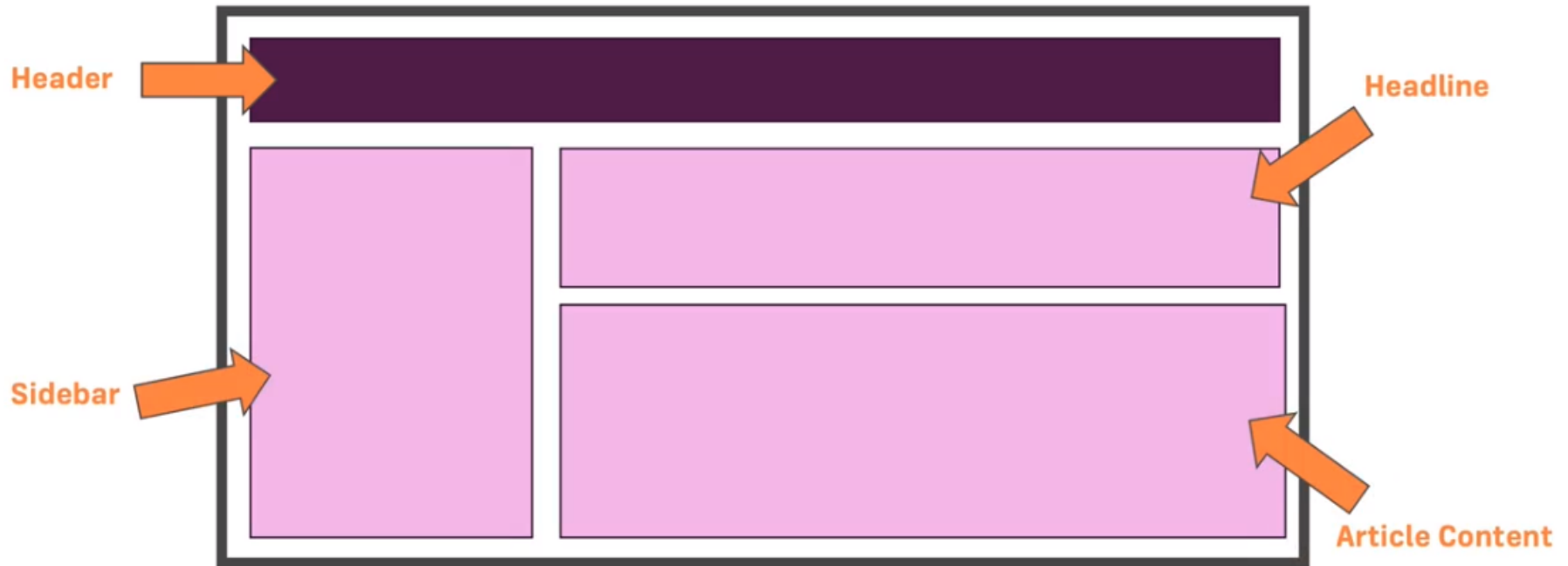3. Reasons to use React
4. Core Concepts

1. Introduction

React is a JS library for building user interfaces.

- React Apps run on the **browser**

- User interfaces are split into **components**

1. Introduction

Components:

1. Introduction

Components:

- Each component contains its separate container of code

- We **do not build** our web app as one bigger picture

- Why?

1. Introduction

Components:

- Each component contains its separate container of code

- We **do not build** our web app as one bigger picture

- Why? – It makes our code **more manageable**, **more maintanable** and **more reusable**

- A react component is like a custom HTML element

2. Hallo World

[coding]

3. Reasons for using React

Why React?

UI State becomes difficult to handle with Vanilla JavaScript

Focus on Business Logic, not on preventing your App from exploding

Plus →

Framework Creators probably write better Code

Huge Ecosystem, Active Community, High Performance

3. Reasons for using React

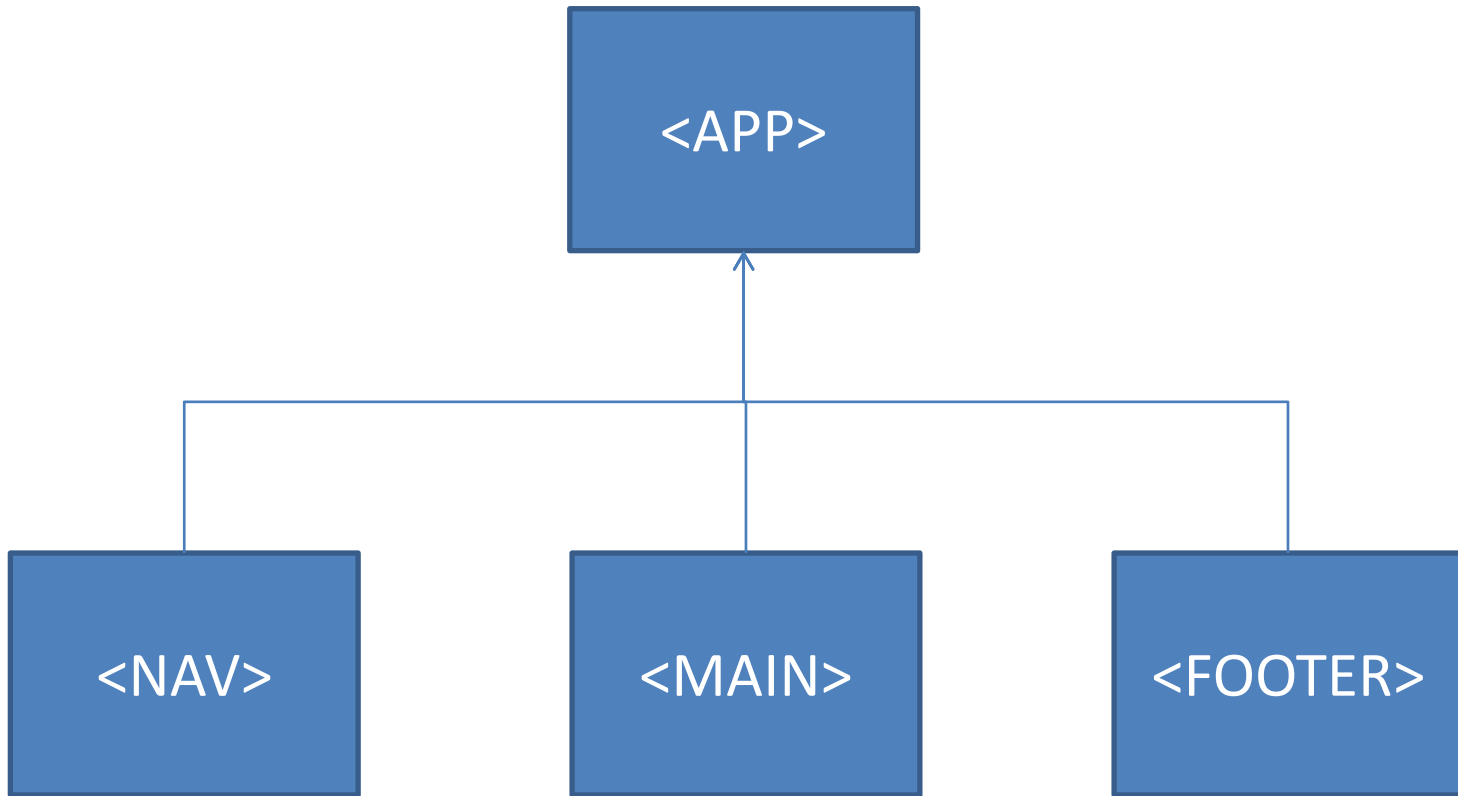**React Alternatives**

Angular

React

Vue

jQuery

Not so much
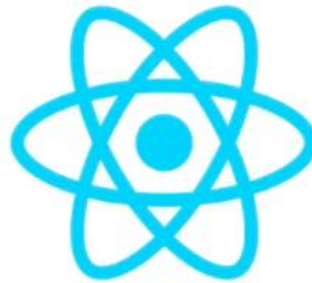
4. Components

- Best Practice, one component will be rendered -> the **App-component**

- All other components are part of the App-component

- Every component has one job: **return JSX** that can be rendered

- JSX is a mixture between HTML and JS

4. Components

5. Arrow Function VS Function

Big Difference:

The „this"-keyword will always
keep its context.

```
function myFnc() {
   ...
}
```

```
const myFnc = () => {
   ...
}
```

6. Props and States

- Props and States are core concepts of React
- Changes in props and states trigger React to re-render components and update the DOM
- Props
  - Allow you to pass data from a parent component to a child component
- States
  - Allow you to change the component from within

7. Events

- https://reactjs.org/docs/events.html#supported-events
- Similar to Jquery

8. Stateful VS Stateless Components

Components defined by **Arrow functions**	Components defined by **class extends Component**

Use as often as possible

They do not manipulate the application state

Purpose: Only render to DOM

Only a few selected components

i.e. App, and components which are allowed to change the application state

Purpose: Render and change the state

9. Passing Method References between Components

App

changeName()

<Person click="changeName">

Person

onClick=click