TW-008 TEAM LEAD VERSION (Sprint-6 Week-1)

TEAMWORK

CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

▶ Icebreaking

▶ Questions

▶ Interview Questions

▶ Coding Challenge

▶ Video of the week

▶ Retro meeting

▶ Case study / project

Teamwork Schedule

Ice-breaking 5m

- Personal Questions (Study Environment, Kids etc.)
- Any challenges (Classes, Coding, studying, etc.)
- Ask how they're studying, give personal advice.
- Remind that practice makes perfect.

Team work 5m

- Ask what exactly each student does for the team, if they know each other, if they care for each other, if they follow and talk with each other etc.

Ask Questions 15m

1. What's one difference between the async and defer attributes of the HTML script tag?

A. The defer attribute can work synchronously.
B. The defer attribute works only with generators.
C. The defer attribute works only with promises.
D. The defer attribute will asynchronously load the scripts in order.

Answer: D

2. Why might you choose to make your code asynchronous?

A. to start tasks that might take some time without blocking subsequent tasks from executing immediately
B. to ensure that tasks further down in your code are not initiated until earlier tasks have completed
C. to make your code faster
D. to ensure that the call stack maintains a LIFO (Last in, First Out) structure

Answer: A

3. Which method cancels event default behavior?

A. cancel()
B. stop()
C. preventDefault()
D. prevent()

Answer: C

4. Which method do you use to attach one DOM node to another?

A. JattachNode()
B. getNode()
C. querySelector()
D. appendChild()

Answer: D

5. If you attempt to call a value as a function but the value is not a function, what kind of error would you get?

A. TypeError
B. SystemError
C. SyntaxError
D. ELogicError

Answer: A

6. Which method is called automatically when an object is initialized?

A. create()
B. new()
C. constructor()
D. init()

Answer: C

7. You've written the event listener shown below for a form button, but each time you click the button, the page reloads. Which statement would stop this from happening?

```
button.addEventListener(
  'click',
  function (e) {
    button.className = 'clicked';
  },
  false,
);
```

A. e.blockReload();
B. button.preventDefault();
C. button.blockReload();
D. e.preventDefault();

Answer: D

8. Which class-based component is equivalent to this function component?

```
const Greeting = ({ name }) => <h1>Hello {name}!</h1>;
```

A. `class Greeting extends React.Component { render() { return <h1>Hello {this.props.name}!</h1>; } }`
B. `class Greeting extends React.Component { constructor() { return <h1>Hello {this.props.name}!</h1>; } }`
C. `class Greeting extends React.Component { <h>Hello {this.props.name}!</h>; } }`
D. `class Greeting extends React.Component { render({ name }) { return <h1>Hello {name}!</h1>; } }`

Answer:A

9. What is wrong with this code?

```
const foo = {
  bar() {
    console.log('Hello, world!');
  },
  name: 'Ryan',
  age: 26,
};
```

A. The function bar needs to be defined as a key/value pair.
B. Trailing commas are not allowed in JavaScript.
C. Functions cannot be declared as properties of objects
D. Nothing, there are no errors.

Answer:D

10. What is the difference between the map() and the forEach() methods on the Array prototype?

A. There is no difference.
B. The `forEach()` method returns a single output value, wheras the `map()` method performs operation on each value in the array.
C. The map() methods returns a new array with a transformation applied on each item in the original array, wheras the `forEach()` method iterates through an array with noreturn value.
D. The `forEach()` methods returns a new array with a transformation applied on each item in the original array, wheras the `map()` method iterates through an array with noreturn value.

Answer: C

Interview Questions 15m

1. What is Twitter Bootstrap?

Answer: Bootstrap is a sleek, intuitive, and powerful, mobile first front-end framework for faster and easier web development. It uses HTML, CSS and Javascript.

Bootstrap was developed by Mark Otto and Jacob Thornton at Twitter. It was released as an open source product in August 2011 on GitHub.

2. What Bootstrap Package Includes?

Answer: Scaffolding − Bootstrap provides a basic structure with Grid System, link styles, and background. This is is covered in detail in the section Bootstrap Basic Structure

CSS − Bootstrap comes with the feature of global CSS settings, fundamental HTML elements styled and enhanced with extensible classes, and an advanced grid system. This is covered in detail in the section Bootstrap with CSS.

Components − Bootstrap contains over a dozen reusable components built to provide iconography, dropdowns, navigation, alerts, pop-overs, and much more. This is covered in detail in the section Layout Components.

JavaScript Plugins − Bootstrap contains over a dozen custom jQuery plugins. You can easily include them all, or one by one. This is covered in details in the section Bootstrap Plugins.

Customize − You can customize Bootstrap's components, LESS variables, and jQuery plugins to get your very own version.

3. How React works? How Virtual-DOM works in React?

Answer: React creates a virtual DOM. When state changes in a component it firstly runs a “diffing” algorithm, which identifies what has changed in the virtual DOM. The second step is reconciliation, where it updates the DOM with the results of diff. The HTML DOM is always tree-structured — which is allowed by the structure of HTML document. The DOM trees are huge nowadays because of large apps. Since we are more and more pushed towards dynamic web apps (Single Page Applications — SPAs), we need to modify the DOM tree incessantly and a lot. And this is a real performance and development pain. The Virtual DOM is an abstraction of the HTML DOM. It is lightweight and detached from the browser-specific implementation details. It is not invented by React but it uses it and provides it for free. ReactElements lives in the virtual DOM. They make the basic nodes here. Once we defined the elements, ReactElements can be render into the "real" DOM. Whenever a ReactComponent is changing the state, diff algorithm in React runs and identifies what has changed. And then it updates the DOM with the results of diff. The point is - it’s done faster than it would be in the regular DOM.

4. What is JSX?

Answer: JSX is a syntax extension to JavaScript and comes with the full power of JavaScript. JSX produces React “elements”. You can embed any JavaScript expression in JSX by wrapping it in curly braces. After compilation, JSX expressions become regular JavaScript objects. This means that you can use JSX inside of if statements and for loops, assign it to variables, accept it as arguments, and return it from functions. Eventhough React does not require JSX, it is the recommended way of describing our UI in React app. For example, below is the syntax for a basic element in React with JSX and its equivalent without it.

```
const element = (
    <h1 className="greeting">
    Hello world!
    </h1>
);
```

Equivalent of the above using React.createElement

```
const element = React.createElement (
    'h1',
    {"className":"greeting"},
    'Hello world!'
);
```

5. What is ReactDOM and what is the difference between ReactDOM and React?

Answer: Prior to v0.14, all ReactDOM functionality was part of React. But later, React and ReactDOM were split into two different libraries. As the name implies, ReactDOM is the glue between React and the DOM. Often, we will only use it for one single thing: mounting with ReactDOM. Another useful feature of ReactDOM is ReactDOM.findDOMNode() which we can use to gain direct access to a DOM element. For everything else, there’s React. We use React to define and create our elements, for lifecycle hooks, etc. i.e. the guts of a React application.

Coding Challenge 20m

- Coding Challenge: JS-CC-014 Bracket Validator

☕

Coffee Break 10m

☕

Video of the Week 5m

- What is React?

Retro Meeting on a personal and team level 5m

Ask the questions below:

- What went well?
- What went wrong?
- What is the improvement areas?

Case study/Project 15m

Case study should be explained to the students during the weekly meeting and has to be completed in one week by the students. Students should work in small teams to complete the case study.

- React Project-001 Tour-Places(RC-01)

Closing 5m

-Next week's plan

-QA Session
