TEAM LEAD VERSION (Week-12)

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 (Stay at home & Corona, 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 should the console read when the following code is run?

```
const [, , animal] = ["Horse", "Mouse", "Cat"]
console.log(animal)
```

A. Horse
B. Cat
C. Mouse
D. undefined

Answer:B

2. What is the name of the tool used to take JSX and turn it into createElement calls?

A. JSX Editor
B. ReactDOM
C. Browser Buddy
D. Babel

Answer:D

3.Why might you use useReducer over useState in a React component?

A. when you want to replace Redux
B. when you need to manage more complex state in an app
C. when you want to improve performance
D. when you want to break your production app

Answer: B

4. Which props from the props object is available to the component with the following syntax?

```
<Message {...props}/>
```

A. any that have not changed
B. all of them
C. child props
D. any that have changed

Answer: B

5. Consider the following code from React Router. What do you call :id in the path prop?

```
<Route path="/:id" />
```

A. This is a route modal
B. This is a route parameter
C. This is a route splitter
D. This is a route link

Answer: B

6. What property do you need to add to the Suspense component in order to display a spinner or loading state?

```
function MyComponent() {
  return (
    <Suspense>
        <div>
            <Message />
        </div>
    </Suspense>
    );
}
```

A. lazy
B. loading
C. fallback
D. spinner

Answer: C

7. If you created a component called Dish and rendered it to the DOM, what type of element would be rendered?

```
function Dish() {
  return <h1> Mac and Cheese</h1>;
}

ReactDOM.render(
    <Dish />,
    document.getElementById('root')
)
```

A. div
B. section
C. component
D. h1

Answer:D

8. What does this React element look like given the following function?

```
React.createElement(
    "h1",
    null,
    "What's happening?"
);
```

A.

```
<h1 props={null}>What's happening?</h1>
```

B.

```
<h1>What's happening?</h1>
```

C.

```
<h1 id="component">What's happening?</h1>
```

D.

```
<h1 id="element">What's happening?</h1>
```

Answer:B

Interview Questions 15m

1. What are controlled components?

Answer: In HTML, form elements such as "input", "textarea", and "select" typically maintain their own state and update it based on user input. When a user submits a form the values from the aforementioned elements are sent with the form. With React it works differently. The component containing the form will keep track of the value of the input in it's state and will re-render the component each time the callback function e.g. onChange is fired as the state will be updated. A form element whose value is controlled by React in this way is called a "controlled component". With a controlled component, every state mutation will have an associated handler function. This makes it straightforward to modify or validate user input.

2. What is a higher order component?

Answer: A higher-order component (HOC) is an advanced technique in React for reusing component logic. HOCs are not part of the React API. They are a pattern that emerges from React's compositional nature. A higher-order component is a function that takes a component and returns a new component. HOC's allow you to reuse code, logic and bootstrap abstraction. HOCs are common in third-party React libraries. The most common is probably Redux's connect function. Beyond simply sharing utility libraries and simple composition, HOCs are the best way to share behavior between React Components. If you find yourself writing a lot of code in different places that does the same thing, you may be able to refactor that code into a reusable HOC.

3. How Virtual-DOM is more efficient than Dirty checking?

Answer: In React, each of our components have a state. This state is like an observable. Essentially, React knows when to re-render the scene because it is able to observe when this data changes. Dirty checking is slower than

observables because we must poll the data at a regular interval and check all of the values in the data structure recursively. By comparison, setting a value on the state will signal to a listener that some state has changed, so React can simply listen for change events on the state and queue up re-rendering. The virtual DOM is used for efficient re-rendering of the DOM. This isn't really related to dirty checking your data. We could re-render using a virtual DOM with or without dirty checking. In fact, the diff algorithm is a dirty checker itself. We aim to re-render the virtual tree only when the state changes. So using an observable to check if the state has changed is an efficient way to prevent unnecessary re-renders, which would cause lots of unnecessary tree diffs. If nothing has changed, we do nothing.

Coding Challenge 20m

- Coding Challenge: JS-CC-007 : Check Triangle

Video of the Week 5m

- What to do in an interview

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.

- Project-013

Closing 5m

-Next week's plan

-QA Session