TW-09 TEAM LEAD VERSION

TEAMWORK

CLARUSWAY
WAY TO REINVENT YOURSELF

Meeting Agenda

- Icebreaking
- Questions
- Interview Questions
- Coffee Break
- Coding Challenge
- Video of the week
- Retro meeting
- Case study / project

Teamwork Schedule

Ice-breaking 10m

- 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.

Ask Questions 15m

1. If you see the following import in a file, what is being used for state management in the component?

```
import React, { useState } from "react";
```

A. React Hooks
B. stateful components
C. math
D. class components

Answer: A

2. What is `[e.target.id]` called in the following code snippet?

```
handleChange(e) {
  this.setState({ [e.target.id]: e.target.value })
}
```

A.a computed property name
B.a set value
C.a dynamic key
D.a JSX code string

Answer: C

3. You have created a new method in a class component called handleClick, but it is not working. Which code is missing?

```
class Button extends React.Component{

  constructor(props) {
    super(props);
    // Missing line
  }

  handleClick() {...}
}
```

A. `this.handleClick.bind(this);`
B. `props.bind(handleClick);`
C. `this.handleClick.bind();`
D. `this.handleClick = this.handleClick.bind(this);`

Answer: D

4. What is `setCount`?

```
const [count, setCount] = useState(0);
```

A. the initial state value
B. a variable
C. a state object
D. a function to update the state

Answer: D

5. You are rendering a list with React when this warning appears in the console: "Warning: Each child in a list should have a unique 'key' prop." How do you fix this issue?

A. Pass the name of each item as its key.
B. Add a key prop with the same value to each item the list.
C. Clear the console warnings.
D. When iterating over the list items, add a unique property to each list item.

Answer: D

6. Filter Map and Reduce operation is way to:

A. Un-compress and expand data.
B. Create new immutable dataset.
C. Crunch and analyze the data
D. All of them

Answer: C

7. What is the first file loaded by the browser in a basic React project?

A. src/App.js
B. src/index.js
C. public/manifest.json
D. public/index.html

Answer: D

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

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

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

Answer: D

9. What is wrong with this code?

```
const MyComponent = ({ names }) => (
  <h1>Hello</h1>
  <p>Hello again</p>
);
```

A. React does not allow components to return more than one element.
B. React components cannot be defined using functions.
C. The component needs to use the return keyword.
D. String literals must be surrounded by quotes.

Answer: A

10. In MVC, what does React.js act as?

A. Model
B. View
C. Controller
D. all of them

Answer: B

11. Identify the smallest building block of React.JS.

A. Props
B. States
C. Components
D. Elements

Answer: D

12. What is ReactJS mainly used for building?

A. Database
B. Application
C. User Interface
D. Design Platform

Answer: C

Interview Questions 15m

1. How often does the React useState update? Why?

Answer: Since developers use `useState` to enhance performance by creating queues, React doesn't update changes immediately. Candidates should know that useState doesn't implement changes to the state object directly; instead, the updates occur asynchronously.

2. What is the difference between the ES6 and ES5 standards for React?

Answer:

Note: You may not remember all of these. You can mention some of them.

I) Components and Function:
Class structure was introduced to JS with ES6.

```
// ES5
var MyComponent = React.createClass({
  render: function () {
    return <h1>Hello World!</h1>;
  },
});

// ES6
class MyComponent extends React.Component {
  render() {
    return <h1>Hello World!</h1>;
  }
}
```

II) Data types supported
ES5: number, string, null, Boolean and undefined
ES6: number, string, null, Boolean, undefined, and Symbol.

III) Variable declaration
ES5: ES5 uses var to declare a variable.
ES6: ES6 has an additional feature called let and const for defining a variable.

IV) JSX Import
ES5: In ES5 we cannot import a JSX file to another file.
ES6: In ES6 we can import a .jsx file to another file

V) Import Module
ES5: ES5 uses the Require js module to include a react module or a component.
ES6: ES6 uses the import module to include a react module or a component.

VI) Arrow Function
ES5: ES5 uses the function keyword along with the return keyword to define a function.
ES6: In ES6 we don’t need to use a function keyword to define a function. The use of the Arrow function in ES6 makes it more compact.

VII) Bind This
ES5: Props are implicitly defined in ES5 and we implicitly bind “this” to functions.
ES6: In ES6 we pass the props explicitly through the constructor() and we explicitly bind “this” to functions inside the constructor.
VIII) Transpiler
ES5: ES5 don’t need the use of transpiler like babel
ES6: ES6 needs the use of transpiler like babel

IX) Commas between methods
ES5: In ES5 we need to use commas to separate functions or methods within classes.
In ES6 we don’t need to use commas to separate functions or methods within classes.

X) Object Manuplation
ES5: Object manipulation is slow for processing.
ES6: Object manipulation is fast because of object Destructuring.

XI) Performance
ES5: ES5 lacks new features for its performance so it is comparatively low.
ES6: ES6 provides high performance due to advanced features added to it and code optimization.

3. Why is there a need for using keys in Lists?

Answer :

Keys are very important in lists for the following reasons:

- A key is a unique identifier and it is used to identify which items have changed, been updated or deleted from the lists.
- It also helps to determine which components need to be re-rendered instead of re-rendering all the components every time. Therefore, it increases performance, as only the updated components are re-rendered

4. What are the components in React?

Answer :
Components are the building blocks of any React application, and a single app usually consists of multiple components. A component is essentially a piece of the user interface. It splits the user interface into independent, reusable parts that can be processed separately.

There are two types of components in React:

Functional Components : These types of components have no state of their own and only contain render methods, and therefore are also called stateless components. They may derive data from other components as props (properties).

```
function Greeting(props) {
  return <h1>Welcome to {props.name}</h1>;
}
```

Class Components : These types of components can hold and manage their own state and have a separate render method to return JSX on the screen. They are also called Stateful components as they can have a state.

```
class Greeting extends React.Component {
  render() {
    return <h1>Welcome to {this.props.name}</h1>;
  }
}
```

5. What is an event in React?

Answer :

An event is an action that a user or system may trigger, such as pressing a key, a mouse click, etc.

React events are named using camelCase, rather than lowercase in HTML. With JSX, you pass a function as the event handler, rather than a string in HTML.

Coding Challenge 15m

- RC-CC-01 Image Gallery

Coffee Break 10m

Video of the Week 10m

- React State Vs Props

Case study/Project 15m

- RP-02 NBA Legends
- NBA Legends is a self study project and live solution will be provided on Monday. Try to finish before live session.

Retro Meeting on a personal and team level 10m

Ask the questions below:

- What went well?
- What could be improved?
- What will we commit to do better in the next week?

Closing 5m

- Next week's plan
- QA Session
