

React JS Training

(Intermediate to Advanced)



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Schedule for React JS Training

| Day# | Date | Topic |
|--------------|--------------------|--|
| Day-1 | 23-Nov-2023 | State Management : Class Components |
| Day-2 | 24-Nov-2023 | State Management : Functional Components, Hooks |
| Day-3 | 27-Nov-2023 | Http Client Programming – AJAX Calls to APIs (Node JS) |
| Day-4 | 28-Nov-2023 | Working with Forms, Validations, Services |
| Day-5 | 29-Nov-2023 | Redux – State Management Library |
| Day-6 | 30-Nov-2023 | Unit Testing React Application |
| Day-7 | 01-Dec-2023 | Routing – SPA in React JS |

Duration : 7 days (2hours per day) ; 9:30 am to 11:30 pm; 23th Nov – 1st Dec

Day4

Working with Forms



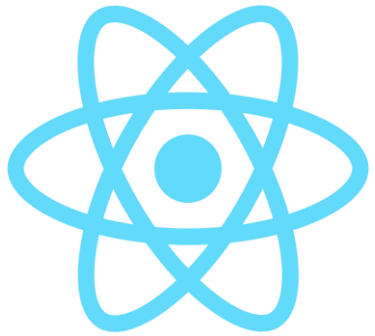
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Index – Day4

1. Recap : Reusable Services objects in React
2. Controlled and Uncontrolled components
3. React Forms
4. Custom Validations using React Forms

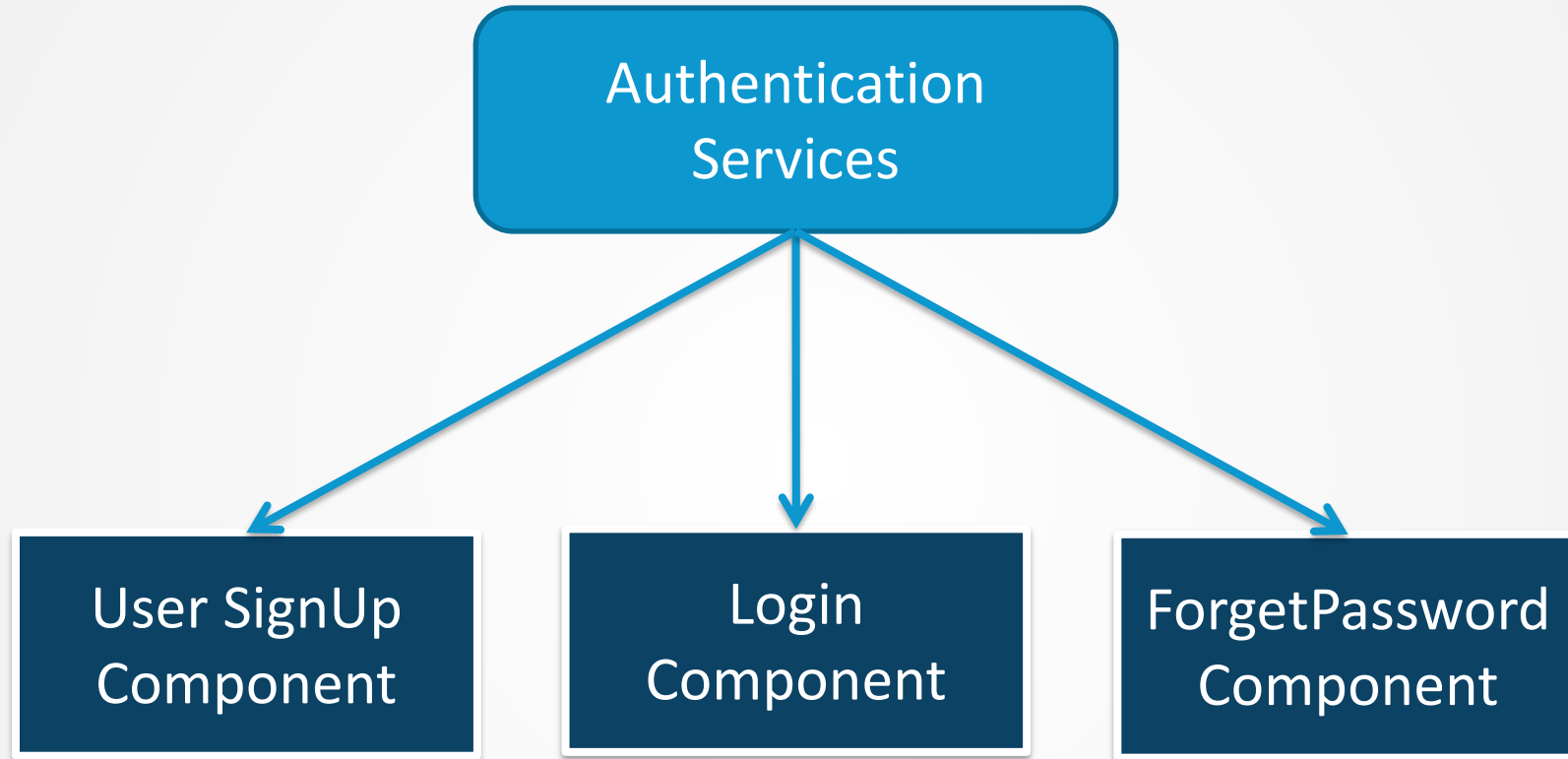


Reusable Services objects in React

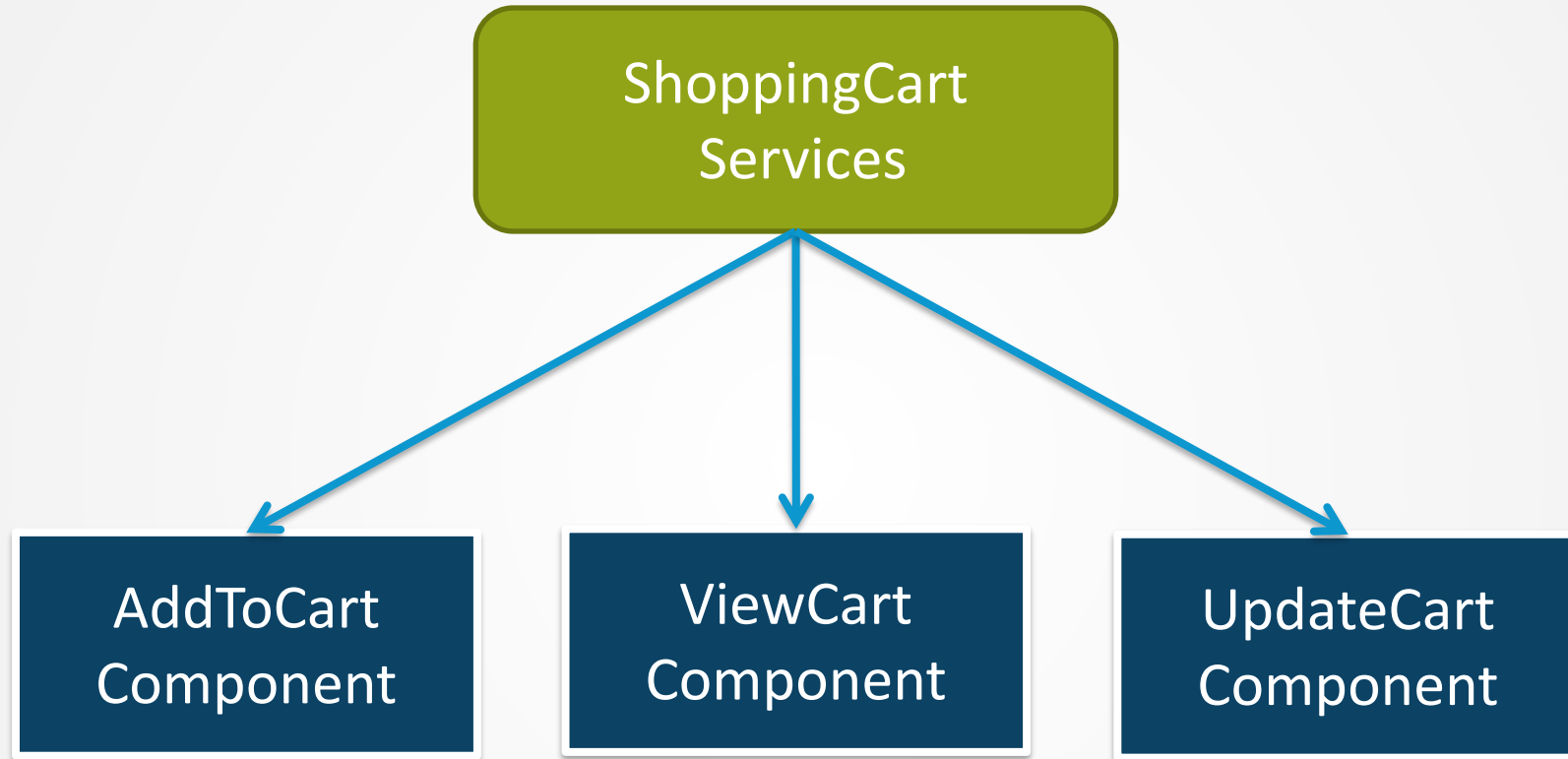
Services in React JS

- Service is just a group of helper functions that handle some operations particularly and can be reused across application.
- Eg:
 - Data Service that includes getData, updateData, deleteData, createData.....
 - Authentication Service that includes signing in, signing out, getting user info ...

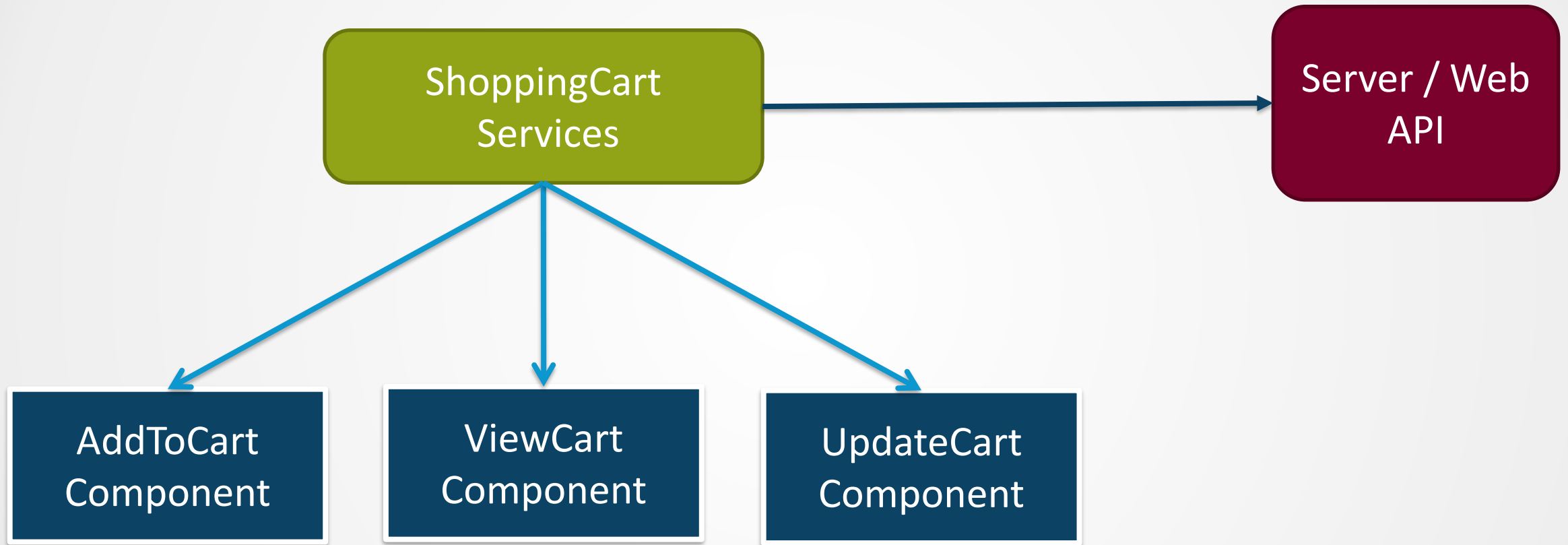
Services in React JS



Services in React JS



Services in React JS



Services in React JS

```
let dataSericeObj = {};
```

DataService.js

```
dataSericeObj.getAllDepts = function()  
{  
    // code to perform the operation  
};  
  
....  
export default dataSericeObj;
```

App.js

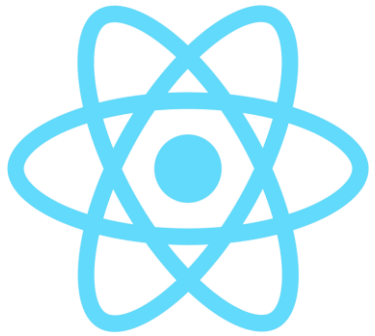
```
import dataSericeObj from "./DataService";  
  
function App() {  
    dataSericeObj .getAllDepts();  
    ....  
}  
  
export default App;
```

Practice Hands-On : CRUD on JSON-Server

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Controlled vs Uncontrolled Components

Controlled vs Uncontrolled Components

- A Controlled Component is one that takes its current value through props and notifies changes through callbacks like `onChange`.
 - A parent component "controls" it by handling the callback and managing its own state and passing the new values as props to the controlled component.
-
- A Uncontrolled Component is one that stores its own state internally, and you query the DOM using a `ref` to find its current value when you need it. This is a bit more like traditional HTML.

Controlled vs Uncontrolled Components

- In most cases, we recommend using controlled components to implement forms.
- In a controlled component, form data is handled by a React component.
- The alternative is uncontrolled components, where form data is handled by the DOM itself.
- To write an uncontrolled component, instead of writing an event handler for every state update, you can use a ref to get form values from the DOM.

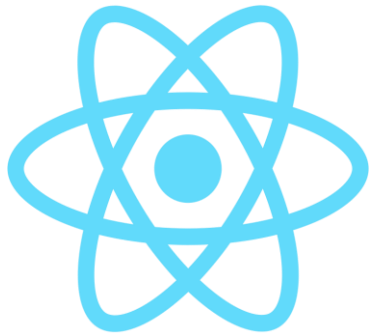
Controlled vs Uncontrolled Components

```
import {useRef} from 'react';
```

```
const inputRef = useRef(null);
```

```
<input ref={inputRef} type="text" value={uname} />
```

```
inputRef.current.focus();
```



React Forms

Working with Forms in React

- Just like in HTML, React uses forms to allow users to interact with the web page.
- You can add a form with React like any other html element
- This will work as normal, the form will submit and the page will refresh. But this is generally not what we want to happen in React.
- We want to prevent this default behavior and let React control the form.

onSubmit event

```
const handleSubmit = (event) =>
{
  event.preventDefault();
  alert(`Form is submitted by user`);
}
```

```
<form onSubmit={handleSubmit}>
  .....
  <input type="submit" />
</form>
```

Code Snippets

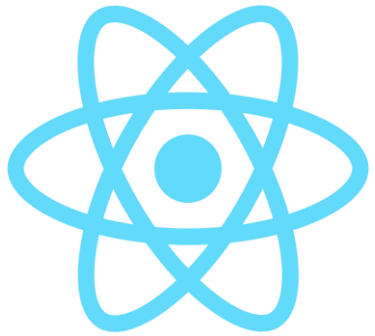
```
let tempErrorObj = Object.assign({}, errorsObj);  
  
let valuesArray = Object.values(tempErrorObj);  
  
let index = valuesArray.findIndex( item => item.length !== 0 );
```

Practice Hands-Ons

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React Forms Validations using 3rd Party Library



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