

Module 44-Modern Front-end core concepts

React Install:

```
npx create-react-app my-app
```

```
cd my-app
```

```
npm start
```

44-0 Milestone overview

MODERN FRONT-END CORE CONCEPTS

1. Web component
2. Dynamic create HTML elements
3. Single Page Application(SPA)
4. Routing, Route parameter
5. Destructuring and props
6. Website state
7. Folder structure

React Core Concept:

1. Core concepts Discussion
2. Working with JSX, Dynamic content, Dynamic Style
3. Pass Dynamic data to components, props
4. Create multiple components
5. State, component state hook and set state
6. Load dynamic data , API call useEffect integrate state

HOW REACT WORKS

1. What is JSX, React Component, babel transpiler
2. Components and how props works

3. Unidirectional data flow
4. How states works, asynchronous
5. How React Hook works
6. Props vs state
7. Properties vs attributes
8. What Is React, when to use it
9. Render, virtual dom, diff algorithm
10. React component lifecycle

YOU WILL ALSO LEARN

1. ES6 Modules
2. Import, Export, Default
3. Relative Path
4. Create and Load Fake data
5. Array reduce
6. Local storage functionality
7. Good UI vs bad UI
8. Themeforest, free, flaticon, unsplash
9. Add or remove key to an object
10. Wrap event handler with arrow function
11. Local storage with more functionalities

44-1 Module overview and modern application core parts

Important topic list:

- Component
- Template
- State

- Routing

44-2 Web component, 4 types of component, identify component

4 types of component:

- Similer in look, different in data
- Container Component=. যখন এক বা একাধিক Component একসাথে বা একটা borderborder বা Container এর মধ্যে থাকে রাখবে তখন তাকে Container Component বলে।
- No pattern, But Brekdown For working purpose=কোন একটা বড় জিনিসকে কাজের সুবিধার জন্য breakdown breakdown করে রাখাকে component বলে।
- Stone alone(header , footer)

44-3 Template, dynamically create HTML elements based on data

44-4 Single Page Application (SPA), Performance benefit

A single-page application is a web application or website that interacts with the user by dynamically rewriting the current web page with new data from the web server, instead of the default method of a web browser loading entire new pages.

What is a single page application example?

Some examples of Single Page Applications are **Gmail, Google Maps, AirBNB, Netflix, Pinterest, Paypal**, and many more. Companies are using SPAs to build a fluid, scalable experience.

44-5 Routing, Route parameter, Routing in React

44-6 Explore destructuring and send data to html elements using props

What props mean in React?

Props are **arguments passed into React components**. Props are passed to components via HTML attributes. props stands for properties.

44-7 Website state, state management, purpose of state

What is state management in web?

State management refers to **the management of the state of one or more user interface controls such as text fields**, OK buttons, radio buttons, etc. in a graphical user interface.

44-8 Install React App and explore folder structure and edit

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44-9 Module Summary and concept recap