**React – Advance React – Styling, Routing React-Styling**

**Question 1: How do you apply inline styles dynamically in React based on props or state?**

**Ans.**

inline styles dynamically by using the style attribute and providing an object where the keys are camelCase versions of the CSS properties.

const style = { backgroundColor: isActive ? 'green' : 'red', };

**Question 2 : Can you use both inline and external styles together in a React component?**

**Ans:**

Yes, you can use both inline and external styles together in a React component. import './App.css';

const style = { color: 'blue' };

**React – routing**

**Question 1 : What is React Router? How does it handle routing in single-page applications?**

**Ans.**

React Router is a library for managing navigation and routing in React applications. It allows you to define routes to map URLs to specific components, enabling seamless transitions between pages without reloading the browser. Handle routing in single-page applications In single-page applications (SPAs), React Router handles routing by using the History API and JavaScript to dynamically update the URL and render the corresponding component without reloading the page.

Example: import { BrowserRouter as Router, Routes, Route, Link } from 'react-router-dom'; function App() { return ( Home About } /> } /> ); } function Home() { return

Welcome to Home!

; } function About() { return

About Us

; } export default App;

**Question 1 : Explain the difference between BrowserRouter, Route, Link, and Switch components in React Router.**

**Ans.**

Here's a simple explanation of the BrowserRouter, Route, Link, and Switch components in React Router:

1. BrowserRouter

* Acts as the main container for React Router functionality.
* It manages the URL in the browser and ensures the correct component is shown based on the current URL.
* Think of it as the "parent" that sets up routing for your app.

Example:

import { BrowserRouter } from "react-router-dom";

<BrowserRouter>

{/\* All routing-related components go here \*/}

</BrowserRouter>

2. Route

* Decides which component to show based on the URL.
* Each Route is like a rule: "If the URL matches this, show that component."

Example:

import { Route } from "react-router-dom";

<Route path="/home" component={Home} />

<Route path="/about" component={About} />

* /home → Shows the Home component.
* /about → Shows the About component.

3. Link

* Used to navigate between pages without refreshing the browser.
* It replaces the traditional <a> tag for internal navigation.
* Automatically updates the URL.

Example:

import { Link } from "react-router-dom";

<Link to="/home">Go to Home</Link>

<Link to="/about">Go to About</Link>

4. Switch (deprecated in React Router v6+)

* Ensures that only one Route is rendered at a time.
* Without Switch, multiple Route components might match and render simultaneously.
* Now replaced by the Routes component in newer versions.

Example:

import { Switch, Route } from "react-router-dom";

<Switch>

<Route path="/home" component={Home} />

<Route path="/about" component={About} />

</Switch>