**React.js Recap: Professional Development in Kinyarwanda & English**

**Muraho…….!**   
Uyu munsi tugiye gusubiramo uburyo bwo gukoresha React.js mu buryo bw'umwuga, tukoresheje ibintu by'ingenzi by'ingenzi mu gukora applications zikora neza. Tuzareba **useState**, **event handling**, **props**, **routes**, **components**, n'ibindi byinshi hamwe n'ibyo ushobora kwifashisha mu buzima busanzwe.

**1. Components & Props - Uburyo bwo kubaka App iteye neza**

**👉 Components:**

* **English:** Components are like building blocks. You break down your UI into smaller, reusable parts.
* **Kinyarwanda:** Components ni ibice byoroheje, bikoreshwa kenshi mu gukora intera.

**Urugero rw’ubuzima busanzwe:**  
Tekereza ko uri kubaka urugo. **Rooms** ni components zitandukanye:

* **Kitchen** (Igikoni)
* **Living Room** (Salon)
* **Bedroom** (Icyumba cyo kuraramo)

**Props:**

* Props ni uburyo bwo guha amakuru components zitandukanye.
* **Example:**
* function Welcome(props) {
* return <h1>Hello, {props.name}!</h1>;
* }
* function App() {
* return <Welcome name="Titans" />;
* }

**Ubuzima busanzwe:**  
Ni nko kuba ufite urugi rutuma igikoni kimenyekana ko ari igikoni. Iyo urugi rwitwa "Igikoni", icyo ni prop!

**2. State Management - Kugenzura amakuru muri Components**

**👉 useState:**

* **English:** Keeps track of changes in your application.
* **Kinyarwanda:** Ni uburyo bwo kugumana no guhindura amakuru.

**Example: To-Do List App (Urutonde rw’ibikorwa):**

import React, { useState } from "react";

function TodoApp() {

const [tasks, setTasks] = useState([]);

const [newTask, setNewTask] = useState("");

const addTask = () => {

setTasks([...tasks, newTask]);

setNewTask("");

};

return (

<div>

<input

value={newTask}

onChange={(e) => setNewTask(e.target.value)}

placeholder="Add a task"

/>

<button onClick={addTask}>Add</button>

<ul>

{tasks.map((task, index) => (

<li key={index}>{task}</li>

))}

</ul>

</div>

);

}

**3. Event Handling - Guhuza ibikorwa na React**

**👉 Kuki bikenewe?**

* **English:** It allows users to interact with your app (e.g., clicks, typing).
* **Kinyarwanda:** Bituma abakoresha bashobora gukorana n'application yawe (nko gukanda cyangwa kwandika).

**Urugero rw’ubuzima busanzwe:**  
Iyo ukanda **button** mu muryango w’umuryango kugira ngo ufungure, ibyo ni Event Handling.

**Example:**

function Counter() {

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

return (

<div>

<p>Count: {count}</p>

<button onClick={() => setCount(count + 1)}>Increase</button>

</div>

);

}

**4. Routing - Gutwara abakoresha aho bashaka muri App**

**👉 React Router:**

* **English:** Helps you navigate between pages in a single-page application (SPA).
* **Kinyarwanda:** Ifasha kugenda hagati y’amapeji muri app imwe.

**Urugero:**  
Tekereza nk’umuhanda (Route) uhuza **Home**, **About**, na **Contact Us**.

**Example:**

import { BrowserRouter, Route, Routes, Link } from "react-router-dom";

function App() {

return (

<BrowserRouter>

<nav>

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

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

</nav>

<Routes>

<Route path="/" element={<Home />} />

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

</Routes>

</BrowserRouter>

);

}

function Home() {

return <h2>Welcome to the Home Page</h2>;

}

function About() {

return <h2>About Us</h2>;

}

**5. Resources You Can Use - Ibikoresho byagufasha kubaka apps nziza**

1. **React.js Documentation:**
   * [React Official Docs](https://reactjs.org/docs)
   * Kuri buri component cyangwa hook, React Docs iguha ibisobanuro n’ingero.
2. **YouTube Channels:**
   * Traversy Media, Codevolution, na Fireship.
3. **Coding Practice Platforms:**
   * [CodeSandbox](https://codesandbox.io/)
   * [CodePen](https://codepen.io/)
4. **UI Libraries:**
   * **Tailwind CSS:** For easy and fast styling.
   * **Material-UI:** Pre-built components for a professional UI.
5. **GitHub Repositories:**
   * Explore codebases of popular projects to learn advanced concepts.

**Motivation Tip of the Day:**  
"*Every great developer was once a beginner. Keep coding, keep growing!*"  
"*Umukozi mwiza wese watangiye ari umwiga. Komeza gukora, ukure mu bumenyi!*"

**Happy Coding! 🎉**