**Language notes:**

// hold snipet + loading/error

*const* [snippet, setSnippet] = useState(null);

*const* [loading, setLoading] = useState(true);

*const* [err, setErr] = useState(null);

// use the fetched content

*const* targetText = snippet?.content ?? (loading ? "Loading..." : "No snippet");

*const* chars = useMemo(

() *=>* targetText.split(""), // splits targetText into an array of characters

[targetText] // chars only recalculates if targetText changes

);

The useState() lines: **useState is a React Hook** (hooks are special functions in react that lets you add features (like state, effects, context) to functional components

* Each line is creating a state variable and a function to update it
  + Snippet 🡪 holds the object returned form the backend (like id, language, content) and starts at null
  + setSnippet 🡪 is a function to update snippet later
  + loading 🡪 is a true/false flag to show if you’re currently fetching a snippet
  + setLoading 🡪 is a function to flip that flag
  + err 🡪 holds any error message (or null if no error)
  + setErr 🡪 is a function to update err
* so the overall structure is const [value, setValue] = useState(initialValue); and that specific to React.

React has child and parent elements:

<div className="parent">

<p className="child">I'm a child paragraph</p>

<button className="child">I'm a child button</button>

</div>

Reacts return must have one parent container at the very top. That’s because React needs. A single root to attack to the DOM tree

**How im learning and understanding the structure and syntax of the language along with creating, populating, and querying databases.**

* I’m studying/by completing mini project/milestones.
  + this is a snapshot of my project. Two terminals are on the left side of the page with the top being for running React (npm run dev) and the bottom being for my virtual server (Python FastAPI backend) that is querying an SQL database. Running both together allows the React app (what you are seeing on the right side of the screen) to display code snippets coming from a database of different sentences (the strings a user can iterate through for test their speed).
  + A screenshot of a computer

    AI-generated content may be incorrect.Eventually I will replace my cumptuer which is doing the work to work to run my files (React frontend) and act as a server for my beckend (Fast API) with a cloud service such as Amazon (AWS).
* After that’s completed, I plan to go through Amazons documents to study AWS and take an exam