Persistent Input

INTERVIEW QUESTIONS-112

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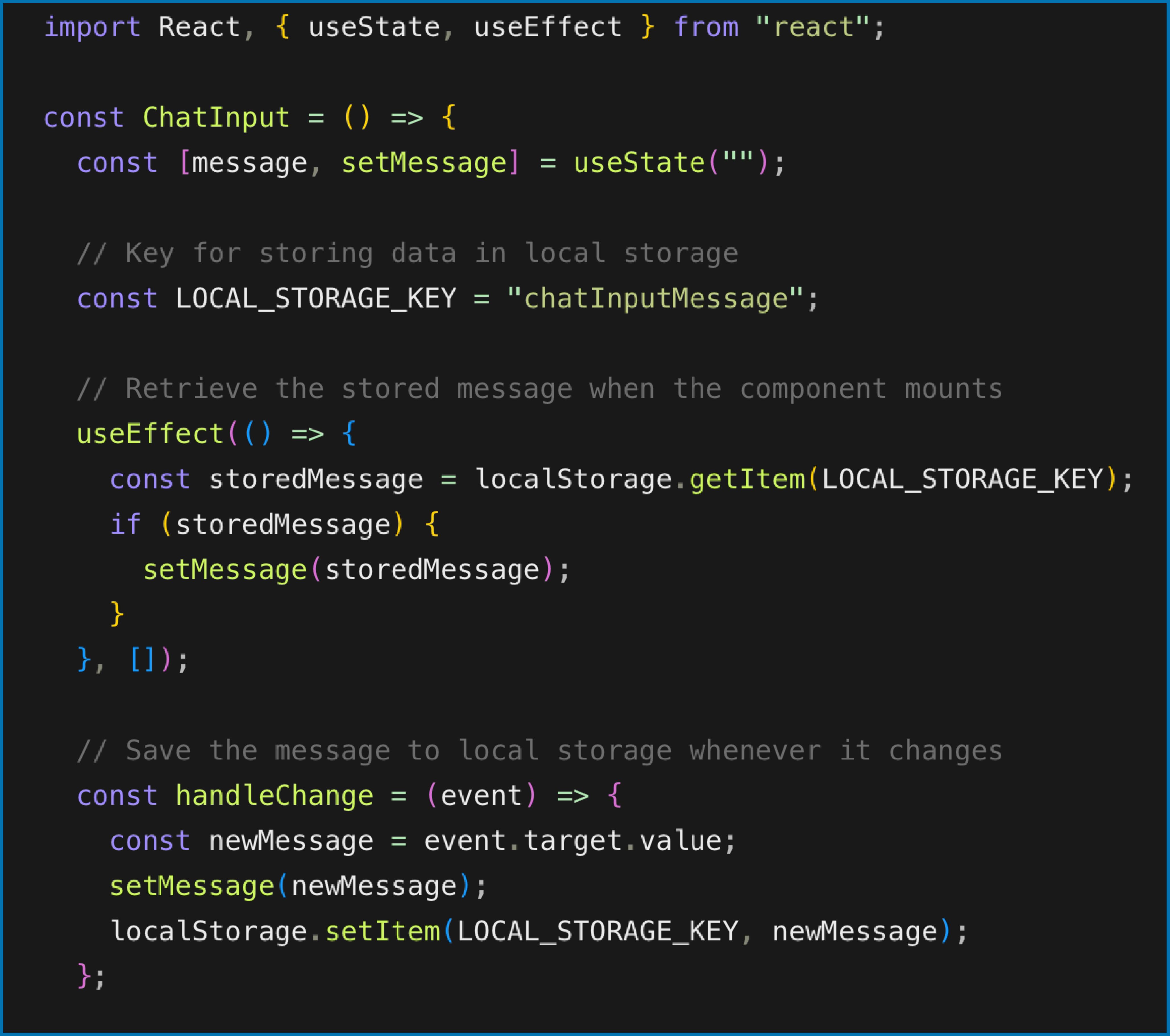
Interviewer

In applications like WhatsApp or Jira, when a user types a message or comment and then navigates away from the page, the input is still present when they return or on refresh. How can you develop this feature in a React application? What mechanisms ensure that the data persists even after closing the chat or the browser?

Answer

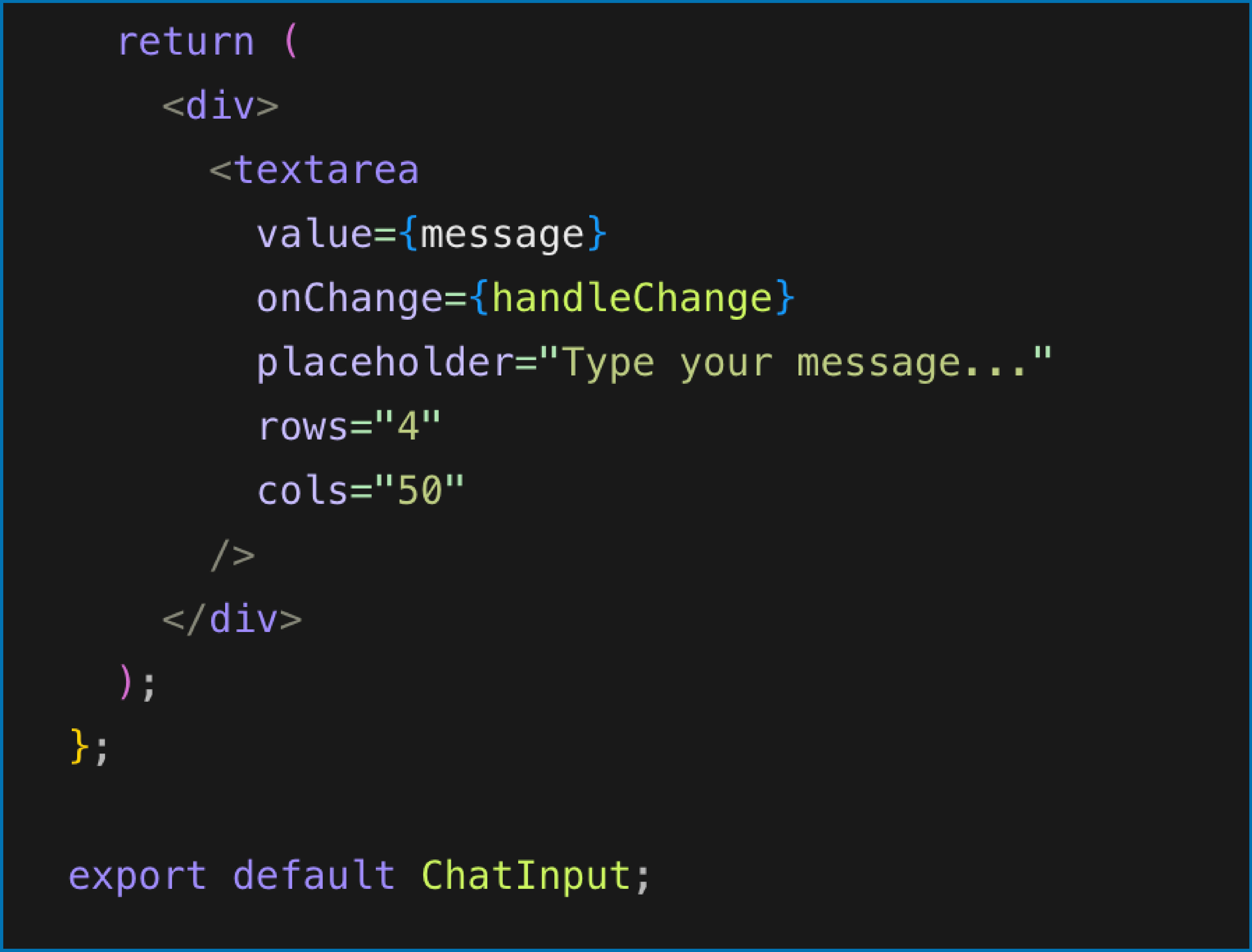
To develop a feature where the typed message or comment persists even after navigating away or closing the chat application, you can use browser storage options such as localStorage or sessionStorage

Implementation



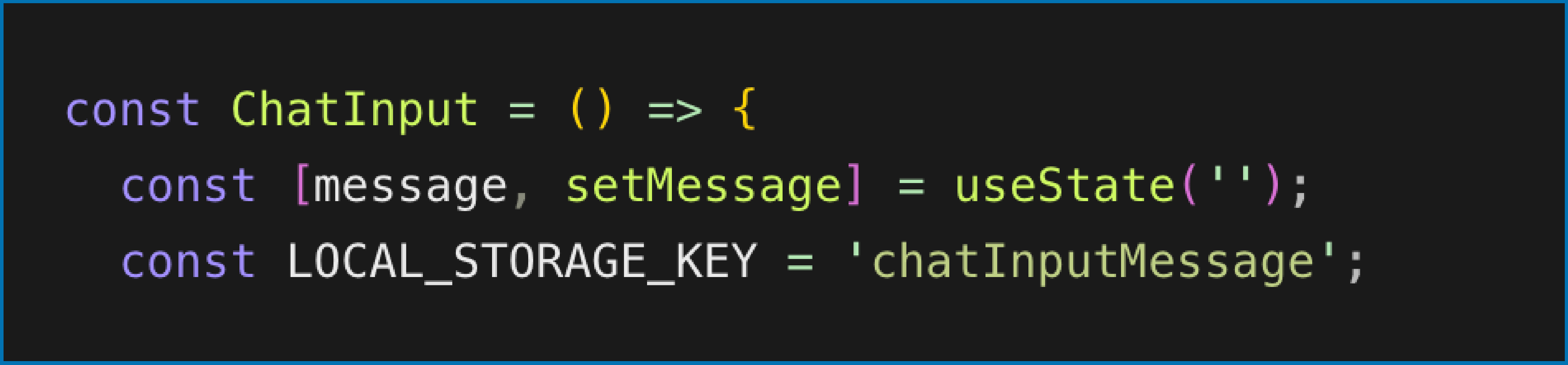
```
import React, { useState, useEffect } from "react";

const ChatInput = () => {
  const [message, setMessage] = useState("");

  // Key for storing data in local storage
  const LOCAL_STORAGE_KEY = "chatInputMessage";

  // Retrieve the stored message when the component mounts
  useEffect(() => {
    const storedMessage = localStorage.getItem(LOCAL_STORAGE_KEY);
    if (storedMessage) {
      setMessage(storedMessage);
    }
  }, []);

  // Save the message to local storage whenever it changes
  const handleChange = (event) => {
    const newMessage = event.target.value;
    setMessage(newMessage);
    localStorage.setItem(LOCAL_STORAGE_KEY, newMessage);
  };
```

explanation for the code



```
  return (
    <div>
      <textarea
        value={message}
        onChange={handleChange}
        placeholder="Type your message..."
        rows="4"
        cols="50"
      />
    </div>
  );
};

export default ChatInput;
```

Explanation

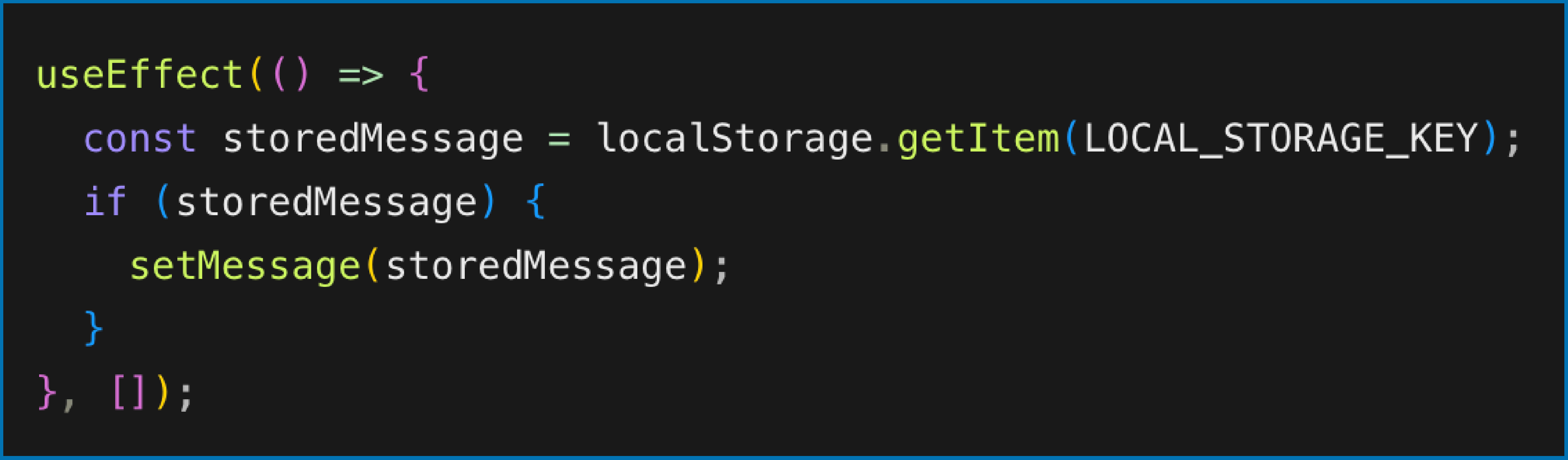


```
const ChatInput = () => {
  const [message, setMessage] = useState('');
  const LOCAL_STORAGE_KEY = 'chatInputMessage';
```

- **ChatInput** is a functional React component.

- message is a state variable initialized with an empty string. **setMessage** is the function to update message.

- **LOCAL_STORAGE_KEY** is a constant string key used to store and retrieve the message in/from local storage.

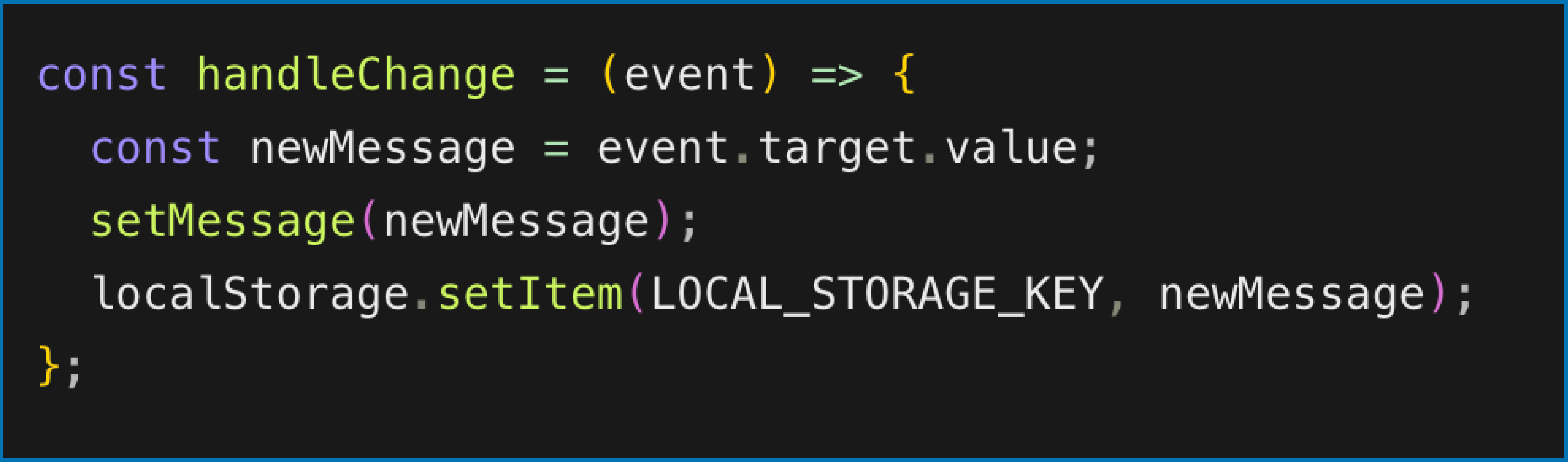


```
useEffect(() => {
  const storedMessage = localStorage.getItem(LOCAL_STORAGE_KEY);
  if (storedMessage) {
    setMessage(storedMessage);
  }
}, []);
```

- This useEffect hook runs once when the component mounts (due to the empty dependency array []).

- It attempts to retrieve a stored message from localStorage using the key LOCAL_STORAGE_KEY.

- If a stored message is found, it updates the message state with this value using setMessage.



```
const handleChange = (event) => {
  const newMessage = event.target.value;
  setMessage(newMessage);
  localStorage.setItem(LOCAL_STORAGE_KEY, newMessage);
};
```

- **handleChange** is a function that gets called whenever the user types in the textarea.

- It receives an **event** object, event, which contains the new value of the **textarea** (event.target.value).

- The function updates the **message** state with the new value and also saves this value to **localStorage** using the same key, **LOCAL_STORAGE_KEY**.

By using this approach, the message will be saved locally on the user's device, ensuring persistence between sessions unless the user clears their browser data or specifically removes the stored item.

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