React Assessment

Aim:

To create an app using React with Components, Rendering, and Data Sharing.

Program:

App.jsx

```jsx
import { useEffect, useState } from "react"
import { NewTodoForm } from "./NewTodoForm"
import "./styles.css"
import { TodoList } from "./TodoList"

export default function App() {

  const [todos, setTodos] = useState(() => {
    const localValue = localStorage.getItem("ITEMS")
    if(localValue == null) return []
    return JSON.parse(localValue)
  })

  useEffect(() => {
    localStorage.setItem("ITEMS", JSON.stringify(todos))
  }, [todos])

  function addTodo(title) {
    setTodos(currentTodos => {
      return [
        ...currentTodos,
        { id: crypto.randomUUID(), title, completed: false },
      ]
    })
  }

  function toggleTodo(id, completed) {
    setTodos(currentTodos => {
      return currentTodos.map(todo => {
        if (todo.id === id) {
          return { ...todo, completed }
        }
        return todo
      })
    })
  }

  function deleteTodo(id, completed) {
    setTodos(currentTodos => {
      return currentTodos.filter(todo => todo.id !== id)
```

```
    })
  }

  return (
    <>
      <NewTodoForm onSubmit={addTodo}/>
      <h1 className="header">Todo List</h1>
      <TodoList todos={todos} toggleTodo={toggleTodo} deleteTodo={deleteTodo}/>
    </>
  )
}
```

NewTodoForm.jsx

```
import { useState } from "react"

export function NewTodoForm({onSubmit}) {

    const [newItem, setNewItem] = useState("")

    function handleSubmit(e){
        e.preventDefault()
        if (newItem === "") return
        onSubmit(newItem)

        setNewItem("")
    }
    return (
        <form onSubmit={handleSubmit} className="new-item-form">
            <div className="form-row">
              <label htmlFor="item">New Item</label>
              <input
                value={newItem}
                onChange={e => setNewItem(e.target.value)}
                type="text"
                id="item"
              />
            </div>
            <button className="btn">Add</button>
        </form>
    )
}
```

TodoList.jsx

```
import { TodoItem } from "./TodoItem"

export function TodoList({todos, toggleTodo, deleteTodo}) {
    return (
```

```
    <ul className="list">
        {todos.length === 0 && "No Todos"}
        {todos.map(todo => {
          return (
            <TodoItem
                {...todo}
                key = {todo.id}
                toggleTodo={toggleTodo}
                deleteTodo={deleteTodo}
            />
          )
        })}
      </ul>)
}
```

TodoItem.jsx

```
export function TodoItem ({completed, id, title, toggleTodo, deleteTodo}) {
    return (
        <li>
          <label>
            <input
              type="checkbox"
              checked={completed}
              onChange={e => toggleTodo(id, e.target.checked)}
            />
            {title}
          </label>
          <button
            onClick={() => deleteTodo(id)}
            className="btn btn-danger">
                Delete
            </button>
        </li>
      )
}
```

Styles.css

```
* {
    font-family: Arial, Helvetica, sans-serif;
    box-sizing: border-box;
  }

  body {
    background: #333;
    color: hsl(200, 100%, 90%);
    max-width: 400px;
    padding: 1rem;
    margin: 0 auto;
```

```
}

.new-item-form {
  display: flex;
  flex-direction: column;
  gap: 0.5rem;
}

.form-row {
  display: flex;
  flex-direction: column;
  gap: 0.1rem;
}

.btn {
  background: hsl(200, 100%, 50%, 0.1);
  border: 1px solid hsl(200, 100%, 50%);
  color: hsl(200, 100%, 50%);
  padding: 0.25em 0.5em;
  border-radius: 0.25em;
  cursor: pointer;
  outline: none;
}

.btn:hover,
.btn:focus-visible {
  background: hsl(200, 100%, 50%, 0.2);
}

.btn.btn-danger {
  background: hsl(0, 100%, 40%, 0.1);
  border: 1px solid hsl(0, 100%, 40%);
  color: hsl(0, 100%, 40%);
}

.btn.btn-danger:hover,
.btn.btn-danger:focus-visible {
  background: hsl(0, 100%, 40%, 0.2);
}

.new-item-form input {
  outline: none;
  border: 1px solid hsl(200, 100%, 40%);
  background: hsl(200, 100%, 30%);
  border-radius: 0.25em;
  padding: 0.25em 0.5em;
  color: hsl(200, 100%, 90%);
}

.new-item-form input:focus {
  border: 1px solid hsl(200, 100%, 70%);
```

```css
}

.header {
  font-size: 1.5rem;
  margin-top: 1.5rem;
  margin-bottom: 0.5rem;
}

.list {
  margin: 0;
  padding: 0;
  margin-left: 1rem;
  list-style: none;
}

.list li:has(input:checked) label {
  color: hsl(200, 20%, 40%);
}

.list  {
  display: flex;
  flex-direction: column;
  gap: 0.3rem;
}

.list li {
  display: flex;
  gap: 0.5rem;
  align-items: center;
}

.list li label {
  display: flex;
  gap: 0.25rem;
  cursor: pointer;
  align-items: center;
}

.list li:has(input:focus-visible) label {
  outline: 1px solid hsl(200, 100%, 50%);
}

.list li input {
  outline: none;
  width: 0;
  height: 0;
  appearance: none;
  pointer-events: none;
  position: absolute;
}
```

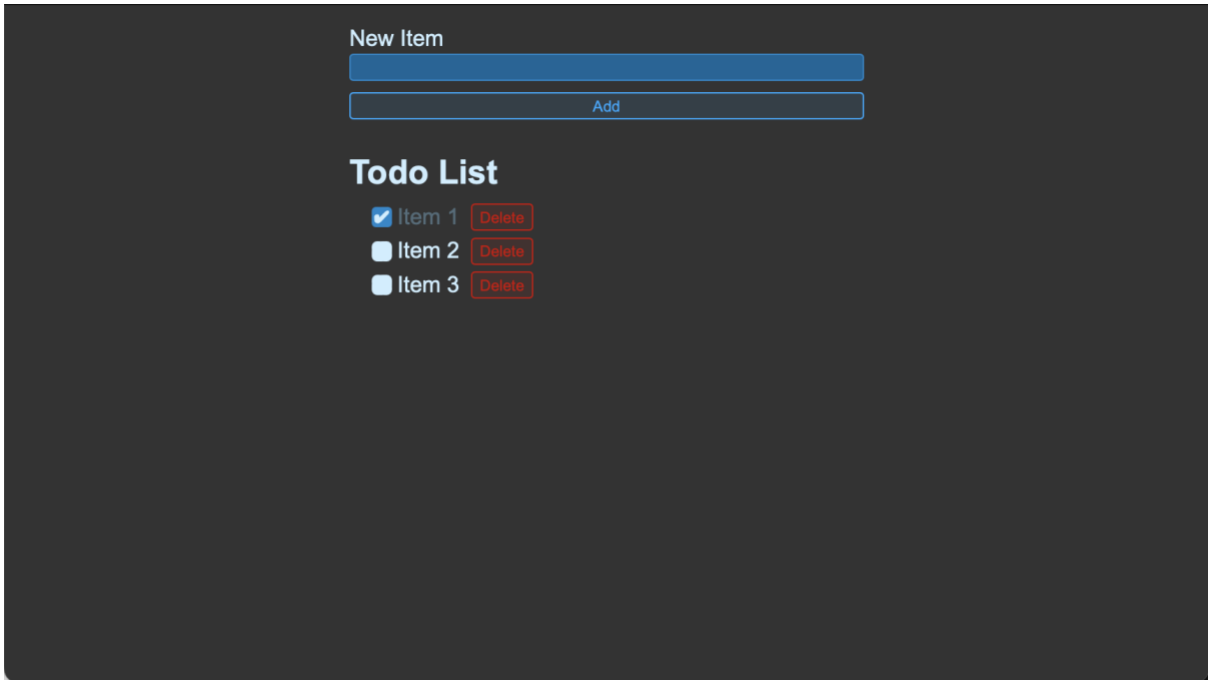
```css
.list li label::before {
  content: "";
  display: block;
  width: 0.9rem;
  height: 0.9rem;
  background: hsl(200, 100%, 90%);
  border-radius: 0.25em;
  display: flex;
  justify-content: center;
  align-items: center;
}

.list li label:hover::before {
  background: hsl(200, 100%, 80%);
}

.list li:has(input:checked) label::before {
  content: "✓";
  background: hsl(200, 100%, 40%);
  color: hsl(200, 100%, 90%);
  font-size: 0.75rem;
  font-weight: bold;
}

.list li:has(input:checked) label:hover::before {
  background: hsl(200, 100%, 30%);
}
```

Output



Result:

Therefore, we've successfully an app using React with Components, Rendering, and Data Sharing.