Step 1: Set Up Monorepo with Lerna

1. Install Lerna globally:

Bash:

```
npm install -g lerna
```

2. Initialize a Lerna monorepo:

Bash:

```
mkdir your-ui-library
cd your-ui-library
lerna init
```

Step 2: Create UI Library

- Create a package for the UI library:
  ```
  lerna create ui-library
  ```

- Install Snabbdom:
  ```
  lerna add snabbdom --scope=ui-library
  ```

- Implement the UI library functionality:

```js
// packages/ui-library/src/index.js
import { init } from 'snabbdom/build/package/init';
import { h } from 'snabbdom/build/package/h';

let patch = init([]);

let state = { count: 0 };

const updateState = (newState) => {
  state = { ...state, ...newState };
  render();
};

const onAddClick = () => {
  updateState({ count: state.count + 1 });
};

const render = () => {
  const newVNode = view(state);
```

```
  patch(oldVNode, newVNode);
  oldVNode = newVNode;
};

const view = (state) => {
  return h('div', [
    h('h1', state.count),
    h('button', { on: { click: onAddClick } }, 'Add'),
  ]);
};

let oldVNode = view(state);
document.getElementById('app').appendChild(patch(oldVNode, h('div')));
// Initial render
```

Step 3: Create a Sample Web Page

Create an HTML file (e.g., **index.html**):

```html
<!-- index.html -->
<!DOCTYPE html>
<html lang="en">
<head>
  <meta charset="UTF-8">
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
  <title>UI Library Example</title>
</head>
<body>
  <div id="app"></div>
</body>
</html>
```

Include the generated script:

```html
<!-- index.html -->
<script src="./packages/ui-library/dist/index.js"></script>
```

Step 4: Run and Test

● Build the UI library:

```
lerna run build --scope=ui-library
```

● Open **index.html** in a browser to test the UI library.