

## Chapter 07 - Finding the Path

### Assignment

- What are various ways to add images into our App? Explain with code examples

There are 4 main ways:

#### 1. Import image (ES6 Modules)

Put the image in src/ folder and import:

```
import myImage from './my_image.jpg';  
<img src={myImage} alt="My Image" />
```

#### 2. Use image from public/ folder

Place in public and use:

```
<img src={process.env.PUBLIC_URL + '/my_image.jpg'} alt="My Image" />
```

#### 3. Use remote image (external URL):

```

```

#### 4. Use image in CSS: In styles.css:

```
.image-container {  
  background-image: url('/my_image.jpg');  
}
```

- What would happen if we do `console.log(useState())`?
  - You'll get an array like `[initialValue, updateFunction]`.
  - Example:

```
const [count, setCount] = useState(0);  
console.log(useState(0)); // [0, f]
```

It logs the value and the function to update that value.
- How will `useEffect` behave if we don't add a dependency array ?
  - It will run **on every render** of the component.
  - Can be **bad for performance** if it fetches data or runs heavy logic.
  - Example:

```
useEffect(() => {  
  console.log("Runs every time");  
});
```
- What is SPA?
  - A web app that loads a single HTML file and updates content using **JavaScript**.
  - No full page reloads.
  - Example: Apps built with React, Angular, Vue.

- What is difference between Client Side Routing and Server Side Routing?

<b>Feature</b>	<b>Client-Side Routing</b>	<b>Server-Side Routing</b>
Handled By	Browser (React Router, etc.)	Server
Speed	Fast, no page reload	Slower, reloads page
Used In	SPAs (React apps)	Traditional websites
SEO	Needs extra work for SEO	SEO-friendly
CodeExample	React Router ( <code>&lt;RouterProvider /&gt;</code> )	Express.js routes, or pages on server

#### Coding Assignment:

- Add Shimmer Effect without installing a library
- Install react-router-dom
- Create a appRouter and Provide it to the app
- Create a Home, About, Contact Page with Link (use child routes)
- Make a Error page for routing errors
- Create a Restaurant Page with dynamic restaurant ID
- (Extra) - Create a login Page using Formik Library

#### Resources:

- React Router DOM - <https://reactrouter.com/en/main>
- Client Side Routing - <https://reactrouter.com/en/main/start/overview>
- Formik - <https://formik.org/>