Assignment 9

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1. When and why do we need lazy()?

- lazy lets you defer loading component's code until it is rendered for the first time.
- So, lazy is used when that component might not be used by all users, instead of loaded in the beginning, only when the user really needs it, it's loaded.

2. What is suspense?

- Suspense is a component that allows us to show some fallback content (such as a loading indicator/ Shimmer component) while we're waiting for the lazy component to load or the component is not yet rendered.
- <Suspense> lets you display a fallback until its children have finished loading.

3. Why we got this error: A component suspended while responding to synchronous input. This will cause the UI to be replaced with a loading indicator. To fix, updates that suspend should be wrapped with startTransition? How does suspense fix this error?

- This error is thrown as Exception by React when the promise to dynamically import the lazy component is not yet resolved and the Component is expected to render in the meantime.
- If only the dynamic import is done and there is no <Suspense /> component, then this error is shown.
- React expects a Suspense boundary to be in place for showing a fallback prop until the promise is resolved.
- If showing the shimmer (loading indicator) is not desirable in some situations, then startTransistion API can used to show the old UI while new UI is being prepared.
- React does this without having to delete or remove the Suspense component or its props from your code.

4. When do we and why do we need suspense?

- Suspense is useful when the components are waiting (React.lazy components are getting dynamically loaded) before rendering.
- As it displays a fallback until its children have finished loading.

4. Advantages and disadvantages of using this code splitting pattern?

Advantages	Disadvantages
• Reduces the page load time by bundling the large code into smaller bundles and loading dynamically only when the component is loaded	• Though the initial page load time is reduced, this increases the load time of each component that's loaded dynamically
• Only the components that the user needs are loaded initially	• There will be many http requests as the components are loaded dynamically
• Can improve the user experience while loading by showing suspense fallback/ loading indicator	• But this suspense boundary needs a new chunk of code to be written for showing the shimmer component