Chapter 09 Assignment Theory

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

Lazy() is a new function in react that lets you load react components lazily through code splitting without help from any additional libraries. Lazy loading is the technique of rendering only-needed or critical user interface items first, then quietly unrolling the non-critical items later.
With Code splitting, the bundle can be split to smaller chunks where the most important chunk can be loaded first and then every other secondary one lazily loaded.

2. What is suspense?

React Suspense is a React component that suspends a component('s) being render until a certain condition has been met, and will display a fallback option. This fallback option is required, and it may be a string or another React component such as a spinner.
As a user is navigating through the JavaScript application, and the code is being loaded on runtime, the user has to experience a delay until the network has finished loading and executing the next chunk of JavaScript code. This is where Suspense comes in handy, and displays a graceful loading state to the user.

3. Advantages or disadvantages of code splitting?

Pros	Cons
Drastic reduction of the data which you need to download and parse in order to make the application interactive (achieving much better Time-to-Interactive). Physical separation of different parts of the application and being able to decide when a browser should load them. The ability to exclude administrative code for regular users to optimise file size and hide potentially sensitive data. Client-side caching improvements achieved by updating only those parts of the application which have actually changed.	You actually need to design and implement an app that can be code split. i.e. whether you are using a build tool like webpack or calling `import` dynamically, you will need to actually think through how the user would interact with your app and slice it appropriately. Implicit dependencies and added complexity. If the project is sufficiently large and poorly designed, you might sometimes make mistakes like calling a dependency when it is not loaded yet. This can happen if u do the code splitting yourself. If your app is sufficiently small, code splitting might not provide any benefit especially if the overhead of making these requests might be more than the bytes saved.