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

**Ans:** Lazy loading is one of the important functionality in react to improve the performance normally all bundlers minifies and bundle the whole react code in file at the time of compilation but the disadvantage of that is the size of the file consider the large production scale application as obvious it will contain lot of components and lot’s hooks etc so the size of the main file is the important factor for the performance of the application during initial rendering . it consists code of the components which are not rendering in the present page like other route component so it consist unnecessary code to prevent this we can use lazy loading where we dynamically import the code of the component when something is triggered like Link for the component routing it makes the initial loading more faster it only request to the server whenever it is needed to render the component.

1. **What is suspense?**

**Ans:** Suspense is the way to provide fall back UI at the time of rendering whenever request goes to server to load the component specific file it takes some time to finish the network call at that time the react is not able to render the component so it throws the suspended error to prevent that we must provide suspense UI like loading spinner/Shimmer UI for time to finish the network call and then it renders the requested component after the network call.

1. **What are the advantages and disadvantages of the code splitting?**

**Ans:** Code splitting refers to lazy loading the advantages

* It reduces the main file size which improves the initial loading of the application
* Code Modularity

Disadvantages

* We are taking a little more time each time we load a new page that is actually lazy loaded.
* it actually hits the performance negatively if we lazy load components less than 30 KB in size.
* Using third party libraries that are large in size, say lodash or momentjs. If we are loading them into our component and then lazily loading the component, the third party library also gets loaded, therefore increasing the bundle size for that lazily loaded component.