

Chapter 06 - Exploring the world

- What is a Microservice?
- Monolithic architecture is a traditional approach where all software components (UI, backend, and database) are written in a single code base.
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- What is Monolith architecture?
Microservice architecture is an approach where software components are written in different repositories or code bases and communicate with each other through APIs.
- What is the difference between Monolith and Microservice?
Development Process
 - Monolithic: Easier to start but becomes complex as the application grows and more modules are added.
 - Microservices: Initially requires planning and design for the entire system, but as the application grows, it remains simple and offers high code reusability.
Deployment
 - Monolithic: If something fails, it can bring down the entire application.
 - Microservices: The deployment process is efficient and reliable. For example, even if a single service is down, other services will continue to work perfectly.
Debugging & Modifications
 - Monolithic: Debugging is easier as you know the exact source of data.
 - Microservices: Debugging can be complex due to the distributed nature of the services.
Scaling
 - Monolithic: Scaling is costlier as the whole application needs to be scaled.
 - Microservices: Scaling is more efficient as only the services with higher load need to be scaled.

- Why do we need a useEffect Hook?
we need useEffect to update the UI asynchronously after API response.
- What is Optional Chaining?
It is feature of JS which we can use an optional chain syntax to access a key of an object if that is present , even if the key is not present the code will not break;
- What is Shimmer UI?
- Shimmer UI is a skeleton type UI used in loading state to show user the fake UI
- What is the difference between JS expression and JS statement
- JS expression produces some value and js statement does not produces any value
- What is Conditional Rendering, explain with a code example
 - Conditional rendering are those rendering in which we use conditions to check if to render those

we can use && ,|| and ternary operation in JSX to do conditional render

```
...
    {check_If_to_Render() && <RenderElement/> }
  ...
```
- What is CORS?
- CORS (Cross-Origin Resource Sharing) is a system, consisting of transmitting [HTTP headers](#), that determines whether browsers block frontend JavaScript code from accessing responses for cross-origin requests.
- What is async and await?
- async and await are used for handling promise on UI
- What is the use of `const json = await data.json();` in getRestaurants()
- This method reads the **Response** stream to completion and returns a promise that resolves with the result of parsing the body text as JSON.

Coding Assignment :

- Play with the useEffect Hook to see when it is called?(before or after render)
- Play with dependency array in useEffect Hook
- Play with the developer console by putting a debugger in render and useEffect
- Call an actual API to get data
- Handle Error in your API call
- Build Shimmer UI when data in not loaded
- Render your UI with actual API data
- Make Search functionality work
- Make a Login Logout button which toggles with a state
- coding assignment
<https://github.com/shubham12346/foodOrderingApp.github.io>