Redux

1) Redux is an open-source JavaScript library for managing and centralizing application state.
2) Redux can be used for the client side (frontend) with user interfaces.

Project Working :-

1) For this project we have used two layer Sprig Boot (Backend) and React (fronted) . and all data store in DATA BASE .
2) Spring Boot application is Web server application repository layer (controller, Service, Dao) communicate with Data base for the CRUD operation .
3) For Sending the client request we use swagger or postman (It's Pre-define program client)
4) Instead of the Swagger or Postman we use React (it's Web application) for sending the request (It's component base application .
5) User (Client) send the Request Using the Browser and browser that request to the react application using (API CALL) and react application is send to the Spring Boot application and it's communicate to the Data base.
6) Data base return the output to the Spring boot application and Spring boot return to the react , and display the result on the browser.

React is Web Application (client is Browser)

 Spring boot is Web Service (client is Another Program) (i.e. sReact-App)

Why do we use Hooks?

Hooks make React so much better because you have simpler code that implements similar functionalities faster and more effectively. You can also implement React state and lifecycle methods without writing classes.

What is Axios and how do you use it?

Axios is **a promise based HTTP client for the browser and Node. js**. Axios makes it easy to send HTTP requests to REST API and perform CRUD operations.

Hooks are a new addition in React 16.8

Fetch: The Fetch API provides a **fetch() method** defined on the window object.

Axios: Axios is a Javascript library used to make HTTP requests from node.js or XMLHttpRequests from the browser and it supports the Promise API

What is the difference between class component and functional component?

A functional component is just a plain JavaScript function that accepts props as an argument and returns a React element. A class component requires you to extend from React. Component and create a render function which returns a React element. There is no render method used in functional components.

When we use the useState ? (Insted of Constructor)

the useState hook for an object we are using to initialize it to an empty object useState({}) .

useEffect

What does **useEffect** do? By using this Hook, we tell React that your component needs to do something after render. React will remember the function you passed.

What is the use of ResponseEntity?

ResponseEntity **represents an HTTP response, including headers, body, and status**. when @ResponseBody puts the return value into the body of the response, ResponseEntity also allows us to add headers and status code.

@ResponseBody is a marker for the HTTP response body and @ResponseStatus declares the status code of the HTTP response.

What is Autowired annotation in Spring MVC?

The @Autowired annotation in spring **automatically injects the dependent beans into the associated references of a POJO class**.