REACT :

1. Create a webpage to demonstrate the use of Class and function components
2. Suppose you are developing a web application for an online library management system. Describe the role of each component (MongoDB, Express, React and Nodejs) in implementing a feature where users can search for books, view book details, and place requests to borrow books. (10 marks)
3. How to render components from an array using JavaScript's map()
4. Explain with an example how to read props inside the child component and how props change over time
5. Interactivity in Webpages using React -update objects in an array
6. Create a webpage to implement Create and read Operations in a list of items in an array using eventhandling
7. Create a webpage to demonstrate conditional rendering
8. Create a project using React Router with two pages, Home and Films containing list of directors anf the films
9. Explain React lifecylce with an example.
10. Create a webage to demonstrate the use of rect hooks
11. Explain VIRTUAL DOM

1.Component-Based Item Display and Filtering:

Task: Create a React component called GroceryItem that displays the name, price, and quantity of a grocery item. Create another component called GroceryList that renders a list of GroceryItem components. Implement a filtering mechanism using a search input field. When the user types in the search input, the GroceryList should only display items whose names contain the search term.
Concepts: Component creation, props, state management (using useState), list rendering (.map()), filtering arrays (.filter()).

2.Cart Management with State and Event Handling:

Task: Extend the GroceryItem component to include an "Add to Cart" button. Create a Cart component that displays the items added to the cart and their total price. Implement functionality to add items to the cart when the button is clicked and update the cart display. Allow users to increase or decrease the quantity of items in the cart.
Concepts: State management (using useState and potentially useReducer for more complex state), event handling (onClick, onChange), managing arrays of objects in state, calculating totals.

3.Data Fetching and Asynchronous Operations:

Task: Simulate fetching grocery item data from an API (you can use a local JSON file or a mock API). Display the fetched data in the GroceryList component. Implement a loading state while the data is being fetched and handle potential errors.
Concepts: Asynchronous operations (fetch or axios), useEffect hook for side effects, handling loading states, error handling.

4.Form Input and Validation for Adding New Items:

Task: Create a form component that allows users to add new grocery items. The form should include input fields for the item name, price, and quantity. Implement input validation to

ensure that all fields are filled and that the price and quantity are valid numbers. Upon form submission, add the new item to the GroceryList.
Concepts: Form handling, input validation, state management for form inputs, event handling (onSubmit), adding items to an array in state.

5.Routing and Navigation for Different Views:

Task: Use React Router to create different views for the application. Implement routes for the grocery list, the cart, and a "New Item" form. Create navigation links to switch between these views.
Concepts: React Router (installation and usage), route definition, navigation using Link components, organizing application views.

Angular

1. Create an angular webpage using builtin and custom Pipes
2. Createa page to illustrate
3. Event Binding
4. Data Binding
5. Style binding ‘
6. Property Binding
7. Two -way binding
8. Explain three types of directives with examples
9. Programs related to structural directives,attribute directives
10. Programs related to component and custom directive
11. Explain Injection Directives with an example

Unit V

1. Single page Application
2. API
3. Web Services
4. MicroServices Architecture
5. Different types of Architecture =Pros and Cons of Microservices