Dharmsinh Desai University
MCA Semester – 3 (2024-25)
23MCA3001 – Advanced Web Development

<u>Practical – 10</u>

Prerequisite: <u>**Perform the programs given in the Lab. manual provided during the**</u>
<u>**regular classroom sessions.**</u>

Topic: React Js

1. Create a basic counter application.
2. Implement following requirements using class component:
   - Create two 'text' input elements (say txtOperand1 and txtOperand2 for taking numbering input) with respective labels: "Operand-1" and "Operand-2" respectively.
   - Create a button with text "+" when clicked, should show sum of the numbers available in txtOperand1 and txtOperand2 in a bordered label element.
3. In the above program no.: 1,
   - Implement necessary validations.
   - Implement few more operations such as "-", "*", "/",
4. Implement a basic mathematical calculator with appropriate GUI.
5. Print first 20 prime numbers in a list.
6. Render a text box element and a blank drop down (select) element.
   - At every keystroke, change text box color on random basis.
   - Also render two more buttons "Add item" and "Remove item".
   - When the "Add item" button is clicked,
     - add the content of text box element into the drop down
     - Show appropriate blinking error message for 5 seconds in case of empty text box.
     - After adding element into drop down, clear text box.
   - When the "Remove item" button is clicked,
     - Remove relevant (matching value of text box) existing item from the drop down.
     - Keep the button initially disabled.
     - Keep it enabled iff the dropdown contains items.
7. Using suitable real world example, demonstrate use of React states.
8. Using suitable real world example, demonstrate use of React props.
9. Using suitable real world example, demonstrate use of useState and useContext.
10. create a simple multi-page app using React Router. The app should have at least two pages, and the user should be able to navigate between them using links.

Case study

11. Develop a component that shows a list of student names and a search bar.
    - When a user types into the search bar,
      - the list should update to only display items that match the search term.
12. Implement an 'in memory' e-commerce SPA.
    - Implement an 'in memory' shopping cart.
13. Implement TicTacToe.