Name: Afreen Ahmed

Enrolment Number: Mern@003

Assignment: React Form Handling with useState Hooks

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1. Program Statement:

This React program creates a simple user input form that captures and displays a user's name, email, and phone number. It uses React hooks such as useState for managing form input states. Upon submission, it triggers an alert showing the collected information. It includes basic form validation and styling using an external CSS file.

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2. Algorithm:

1. Start
2. Create a functional component Forms
3. Initialize three state variables: name, email, and phone
4. Create handler functions for each input field to update state on change
5. Define a handleSubmit function that shows an alert with the input data
6. Return a form layout with labels, input fields, and a submit button
7. Use onSubmit to trigger handleSubmit
8. Export the component
9. End

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3. Pseudocode:

Component: Forms

- Initialize:
    - name = ""
    - email = ""
    - phone = ""
- handleName(e): update name with e.target.value
- handleEmail(e): update email with e.target.value
- handlePhone(e): update phone with e.target.value
- handleSubmit():
    - Trigger alert: "My name is {name}, my email is {email}, and phone number is {phone}"

- Render:
  - Heading: "Table Form"
  - Form with input fields and submit button
  - Bind input fields to corresponding states and handlers

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4. Program Code (React):

Forms.js

jsx

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```jsx
import React, { useState } from 'react'
import './Forms.css'

const Forms = () => {
  const [name, setName] = useState("")
  const [email, setEmail] = useState("")
  const [phone, setPhone] = useState("")

  const handleName = (e) => {
    setName(e.target.value)
  }

  const handleEmail = (e) => {
    setEmail(e.target.value)
  }

  const handlePhone = (e) => {
    setPhone(e.target.value)
  }

  const handleSubmit = (e) => {
    e.preventDefault()
    alert(`My name is ${name}, my email is ${email} and phone number ${phone}`)
  }
```

```
    return (
        <div>
            <h1>Table Form</h1>
            <div className='a'>
                <form onSubmit={handleSubmit}>
                    <label className='b'>Name </label>
                    <input type='text' onChange={handleName} value={name} /><br /><br />
                    <label className='c'>Email </label>
                    <input type='email' onChange={handleEmail} value={email} /><br /><br />
                    <label className='d'>Phone </label>
                    <input type='text' onChange={handlePhone} value={phone} /><br /><br />
                    <button type='submit' className='e'>submit</button>
                </form>
            </div>
        </div>
    )
}


export default Forms
```

6. Screenshot of Output:

7. Observation / Reflection:

This activity helped me understand the core concept of handling forms in React using useState. It taught me how to update and manage form inputs and how to prevent default form behavior using e.prevent.Default(). Creating controlled components gave me better control over form behavior. I also practiced basic CSS styling and component structuring.