

Industrial Training Daily Diary

MERN Stack Training

Company: Sensation Software Solutions

Student Name: Tajinder Kaur

Training Duration: 6 Months

Day: 20

Day 20 – React Form Handling, Validation & Controlled Components

Objective of the Day

The objective of Day 20 was to learn **React form handling**, implementing **controlled components**, and adding **form validation** to ensure data integrity in React applications.

Introduction to React Forms

The trainer explained that forms are essential for taking user input. In React, forms can be handled using:

- **Controlled Components** – form data is handled by React state
- **Uncontrolled Components** – form data is handled by the DOM (less common)

We focused on controlled components as they provide better control over form data.

Controlled Components

Key points learned:

- Input values are controlled by React state
- `onChange` handler updates state
- Form submission uses `onSubmit` event
- Ensures single source of truth for form data

Example: Text input and checkbox controlled using state.

Form Validation in React

Trainer explained importance of validating form inputs:

- Required fields
- Email and password formats
- Minimum and maximum lengths

We implemented simple client-side validation using state and conditional rendering to display error messages.

Practical Work Done

During the lab session, we:

- Created a registration form with name, email, and password fields
- Implemented controlled components using `useState`
- Added validation for required fields and proper formats
- Displayed real-time error messages when input was invalid
- Submitted form data to the console as proof of working

This practical helped understand real-world form handling in React.

Weekly Task – Week 5 (Extended)

Assigned tasks included:

- Build a user registration form using controlled components
 - Implement client-side validation
 - Update diary and push code to GitHub Pages
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Importance in MERN Stack Development

Forms are essential in almost every web application. Controlled components and validation ensure reliable data entry and prevent errors when sending data to backend APIs.

Conclusion of Day 20

Day 20 gave me practical knowledge of React forms, controlled components, and validation, which are crucial for building interactive and reliable frontend forms.

Outcome of the Day:

- Understanding of controlled vs uncontrolled components
- Ability to handle form inputs using state
- Implemented client-side validation
- Completion of Week 5 extended task