# Lesson 06 Demo 04
# Using React Libraries

**Objective:** To develop a React application that demonstrates React libraries

**Tools Required:** Node Terminal, React App, and Visual Studio Code

**Prerequisites:** Knowledge of creating a React app and understanding of the folder structure

**Steps to be followed:**

1. Create a new **React** app
2. Install the React libraries and import them into **App.js**
3. Run the app

## Step 1: Create a new React app

1.1 Open the terminal and run the command **npx create-react-app react-libraries-demo**


This command will create a new React app with the name **react-libraries-demo.**

1.2 Move to the newly created directory by running the command **cd react-libraries-demo** in the terminal

## Step 2: Install the React libraries and import them into App.js

These libraries are **axios** for remote data fetching and **formik** for building performant forms.

2.1 In the terminal, inside the project directory, run the command **npm install axios formik** to install the **axios** and **formik** libraries

```
shreemayeebhatt@ip-172-31-22-250:~$ cd react-libraries-demo/
shreemayeebhatt@ip-172-31-22-250:~/react-libraries-demo$ npm install axios formik
```

You can create a simple form that uses **formik** to manage its state and validation and **axios** to submit data to a remote server.

2.2 Open your React project with Visual Studio Code, navigate into the **src** folder, and open the **App.js** file

2.3 Import **React**, **Formik**, **Form**, **Field**, **ErrorMessage** from **formik** and **axios**

```
import React from 'react';
import { Formik, Form, Field, ErrorMessage } from 'formik';
import axios from 'axios';
```

2.4 Inside the **App** component, define the **handleSubmit** function that will be called when the form is submitted

2.5 Use **axios.post** to send a **POST** request to the specified URL, **https://jsonplaceholder.typicode.com/posts** with the form values as the data payload

2.6 Use **.then** and **.catch** to handle the response and error, respectively

2.7 Within the **handleSubmit** function, **setSubmitting** to false to indicate that the submission process is complete

```
function App() {
const handleSubmit = (values, { setSubmitting }) => {
axios.post('https://jsonplaceholder.typicode.com/posts', values)
.then(response => {
console.log(response);
setSubmitting(false);
})
.catch(error => {
console.log(error);
setSubmitting(false);
});
};
```

2.8 Return a **JSX** expression that represents the structure and content of the app. Use the **div** element as the root container and inside it, use the **Formik** component to wrap the form and provide state management and validation capabilities

2.9 Set the **initialValues** prop to an object with empty values for the **title** and **body**

2.10 Define the **validate** function to check if the **title** and **body** are empty and return an object with the corresponding error messages if validation fails

2.11 Inside the **Formik** component, use the **Form** element to define the form structure, and use the **label** element and the **Field** component for each form input, specifying the type and name attributes

2.12 Use the **ErrorMessage** component to display any validation errors

2.13 Include a **button** element with the type **submit** to submit the form, and disable it when **isSubmitting** is true

2.14 Export the **App** component as the default export of the file

```
return (
<div>
<h1>React Libraries Demo</h1>
<Formik
initialValues={{ title: '', body: '' }}
validate={values => {
const errors = {};
if (!values.title) {
errors.title = 'Title is required';
}
if (!values.body) {
errors.body = 'Body is required';
}
return errors;
}}
onSubmit={handleSubmit}
>
{({ isSubmitting }) => (
<Form>
<label htmlFor="title">Title</label>
<Field type="text" name="title" />
<ErrorMessage name="title" component="div" />

<label htmlFor="body">Body</label>
<Field as="textarea" name="body" />
<ErrorMessage name="body" component="div" />

<button type="submit" disabled={isSubmitting}>
Submit
</button>
</Form>
)}
</Formik>
</div>
);
}

export default App;
```

Refer to the following code to configure the **App.js** file:

```
import React from 'react';
import { Formik, Form, Field, ErrorMessage } from 'formik';
import axios from 'axios';

function App() {
        const handleSubmit = (values, { setSubmitting }) => {
```

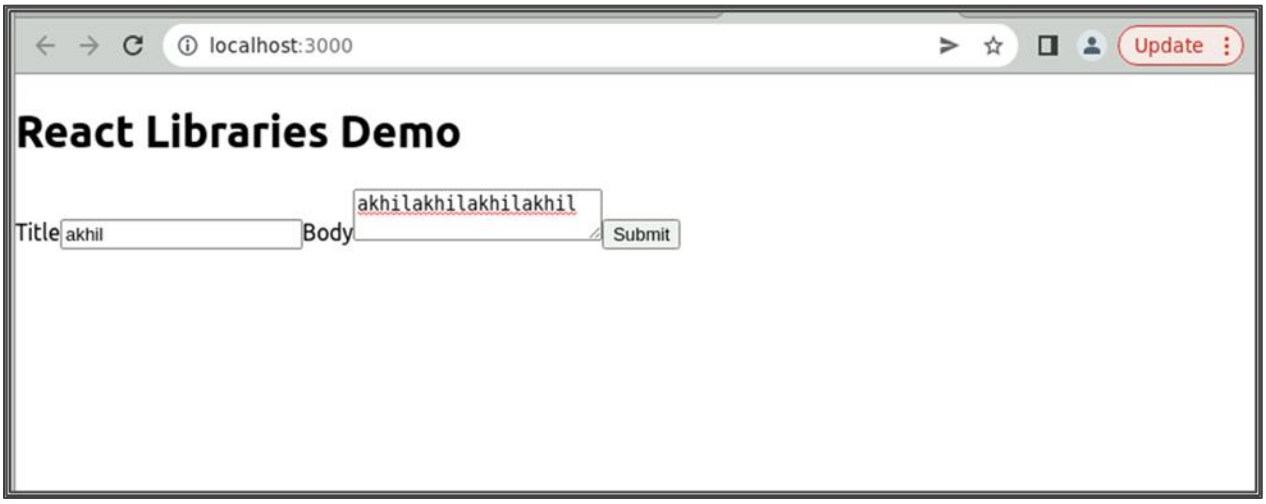
```
        axios.post('https://jsonplaceholder.typicode.com/posts', values)

        .then(response => {
                console.log(response);
                setSubmitting(false);
        })
        .catch(error => {
                console.log(error);
                setSubmitting(false);
        });
};

return (
        <div>
        <h1>React Libraries Demo</h1>
        <Formik
                initialValues={{ title: '', body: '' }}
                validate={values => {
                const errors = {};
                if (!values.title) {
                errors.title = 'Title is required';
                }
                if (!values.body) {
                errors.body = 'Body is required';
                }
                return errors;
                }}
                onSubmit={handleSubmit}
        >
                {({ isSubmitting }) => (
                <Form>
                <label htmlFor="title">Title</label>

                <Field type="text" name="title" />
                <ErrorMessage name="title" component="div" />

                <label htmlFor="body">Body</label>
```

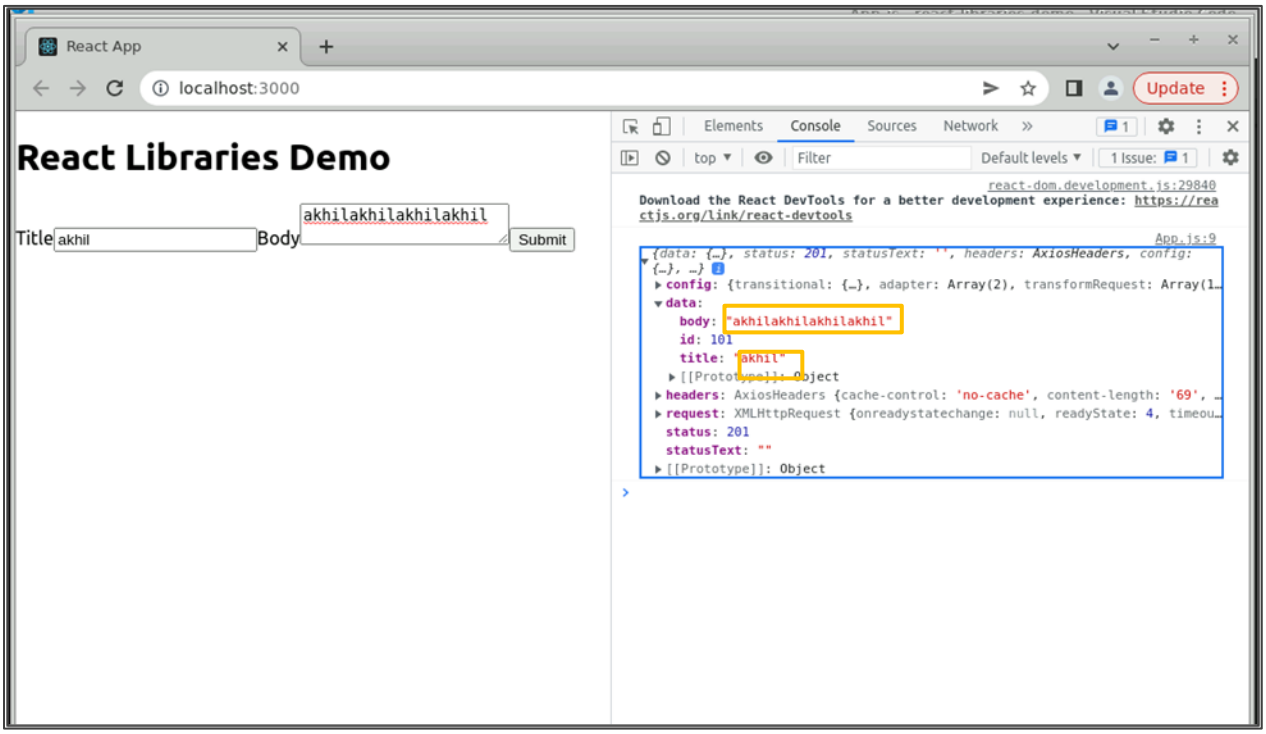
```
                    <Field as="textarea" name="body" />
                    <ErrorMessage name="body" component="div" />

                    <button type="submit" disabled={isSubmitting}>
                    Submit
                    </button>
                    </Form>
                    )}
                </Formik>
                </div>
    );
    }

    export default App;
```

## Step 3: Run the app

3.1 In the terminal, navigate to the project directory and run the command **npm start** to start the development server

3.2 Open your browser and navigate to **http://localhost:3000**






You should see a simple form that allows you to submit a new post to a remote server using **axios**, with form validation and state management provided by **formik**.

With this, you have successfully created a React application that demonstrates the working of the React libraries – **axios** and **formik**.