

```
import React, { useState } from "react";
```

```
interface FormData {  
  username: string;  
  password: string;  
  gender: string;  
  country: string;  
  agreement: boolean;  
}
```

```
interface ErrorMsg {  
  username: string;  
  password: string;  
  gender: string;  
  country: string;  
  agreement: string;  
}
```

```
const App = () => {  
  const initialFormData: FormData = {  
    username: "",  
    password: "",  
    gender: "",  
    country: "",  
    agreement: false,  
  };  
}
```

```
const initialErrorData: ErrorMsg = {  
  username: "",  
  password: "",  
  gender: "",  
  country: "",  
  agreement: "",  
};
```

```
const [formData, setFormData] = useState<FormData>(initialFormData);  
const [errorMsg, setErrorMsg] = useState<ErrorMsg>(initialErrorData);
```

```
const [formSubmitted, setFormSubmitted] = useState(false);
```

```
const handleInputChange = (event: React.ChangeEvent<HTMLInputElement |  
HTMLSelectElement>) => {  
  const { name, value, type, checked } = event.target;
```

```
setFormData((prevFormData) => {  
  if (type === "checkbox") {  
    return {  
      ...prevFormData,  
      [name]: checked,  
    };  
  } else {  
    return {  
      ...prevFormData,  
      [name]: value,  
    };  
  }  
});
```

```
if (formSubmitted) {  
  setErrorMsg({  
    ...errorMsg,  
    [name]: "",  
  });  
}  
};
```

```
const handleLogin = (event: React.FormEvent<HTMLFormElement>) => {  
  event.preventDefault();
```

```
// Reset all error messages  
setErrorMsg({  
  username: "",  
  password: "",  
  gender: "",  
  country: "",  
  agreement: "",  
});
```

```

// Check for empty fields and update error messages
(Object.keys(formData) as (keyof FormData)[]).forEach((item) => {
  if (!formData[item]) {
    setErrorMsg((prevErrorMsg) => ({
      ...prevErrorMsg,
      [item]: `${item.charAt(0).toUpperCase() + item.slice(1)} is required`,
    }));
  }
});

// If there are no errors, proceed with the login
if (!Object.values(errorMsg).some((msg) => msg !== "")) {
  console.log('Login successful!');
  // Perform login logic here
  // For example, redirect to a dashboard or show a success message to the user
}

// Set the formSubmitted flag to true after the form is submitted
setFormSubmitted(true);
};

return (
  <div>
    <h1>Login</h1>
    <form onSubmit={handleLogin}>
      <div>
        <label htmlFor="username">Username</label>
        <input type="text" id="username" name="username" value={formData.username}
onChange={handleInputChange}/>
        <p className="error">{formSubmitted && errorMsg.username}</p>
      </div>
      <div>
        <label htmlFor="password">Password</label>
        <input type="password" id="password" name="password" value={formData.password}
onChange={handleInputChange}/>
        <p className="error">{formSubmitted && errorMsg.password}</p>
      </div>
      <div>
        <label>Gender</label>

```

```

    <div>
      <input type="radio" id="male" name="gender" value="male" checked={formData.gender
=== "male"} onChange={handleInputChange}/>
      <label htmlFor="male">Male</label>

      <input type="radio" id="female" name="gender" value="female"
checked={formData.gender === "female"} onChange={handleInputChange}/>
      <label htmlFor="female">Female</label>
    </div>
    <p className="error">{formSubmitted && errorMsg.gender}</p>
  </div>
  <div>
    <label htmlFor="country">Country</label>
    <select id="country" name="country" value={formData.country}
onChange={handleInputChange}>
      <option value="">Select Country</option>
      <option value="usa">USA</option>
      <option value="canada">Canada</option>
      { /* Add more options as needed */ }
    </select>
    <p className="error">{formSubmitted && errorMsg.country}</p>
  </div>
  <div>
    <input type="checkbox" id="agreement" name="agreement"
checked={formData.agreement} onChange={handleInputChange}/>
    <label htmlFor="agreement">I agree to the terms and conditions</label>
    <p className="error">{formSubmitted && errorMsg.agreement}</p>
  </div>
  <div>
    <button type="submit">Login</button>
  </div>
</form>
</div>
);
};

```

```
export default App;
```