

Lesson 10

REACT FORMS AND ROUTING

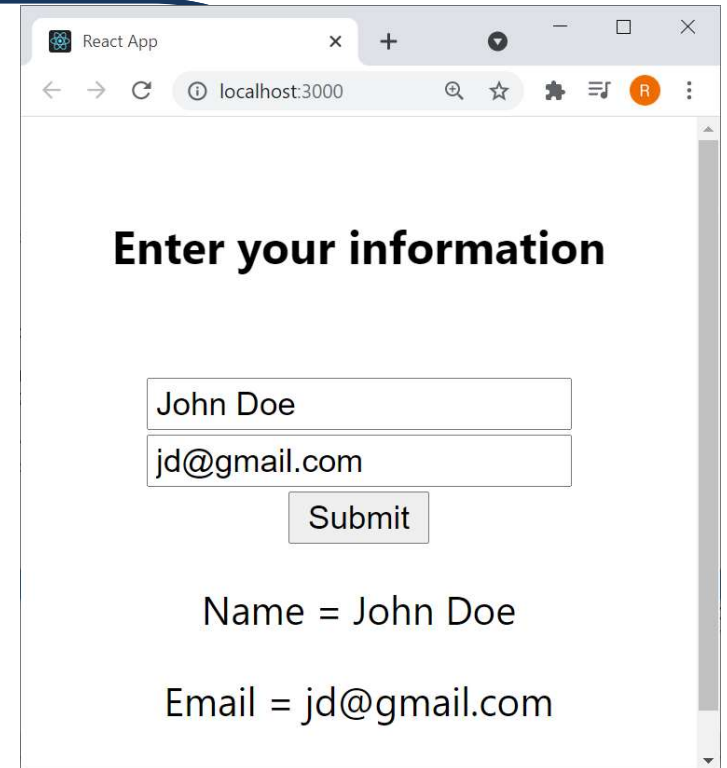
FORMS

Simple entry form

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

export const FormPage = () =>{
  const [name, setName] = useState('');
  const [email, setEmail] = useState('');

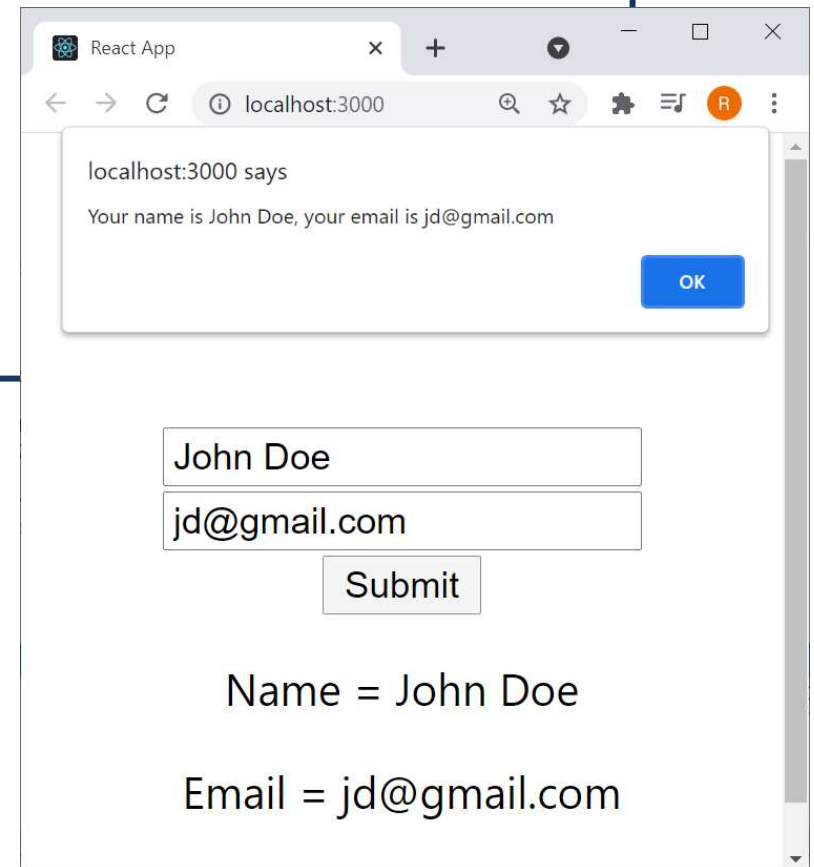
  let formpage = (
    <form>
      <h3>Enter your information</h3>
      <div>
        <input
          type="text"
          placeholder="Name"
          value={name}
          onChange={e => setName(e.target.value)} />
      </div>
      <div>
        <input
          type="text"
          placeholder="Email"
          value={email}
          onChange={e => setEmail(e.target.value)} />
      </div>
    </form>
  );
}
```



The screenshot shows a web browser window titled "React App" at the address "localhost:3000". The page displays a form titled "Enter your information". The form contains two text input fields: the first is labeled "Name" and contains the text "John Doe"; the second is labeled "Email" and contains the text "jd@gmail.com". Below the input fields is a "Submit" button. Below the button, the form displays the entered values: "Name = John Doe" and "Email = jd@gmail.com".

Simple entry form

```
    <button onClick={e => {  
      alert(`Your name is ${name}, your email is ${email}`);  
      e.preventDefault();  
    }}>Submit</button>  
  
    <p>Name = {name}</p>  
    <p>Email = {email}</p>  
  </form>  
);  
return formpage;  
}
```

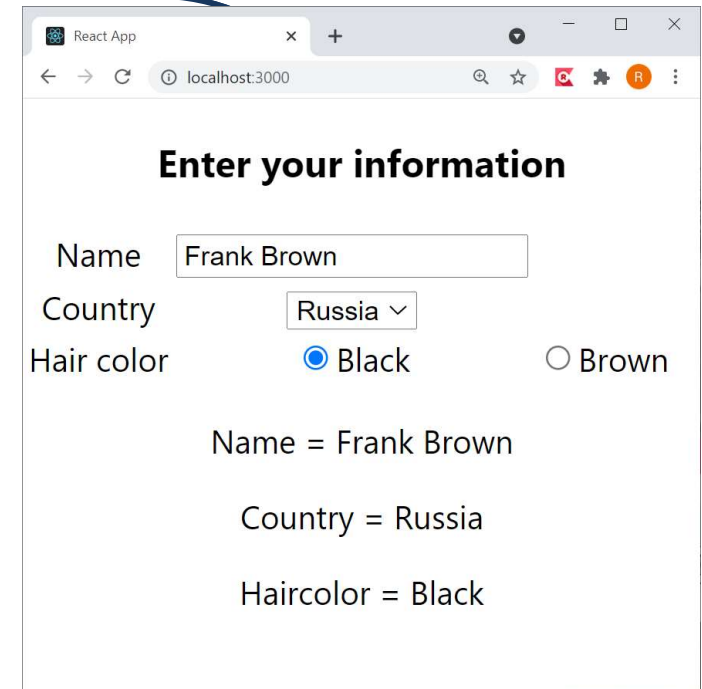


Complex entry form

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

export const FormPage = () => {
  const [name, setName] = useState('');
  const [country, setCountry] = useState('');
  const [haircolor, setHaircolor] = useState('');

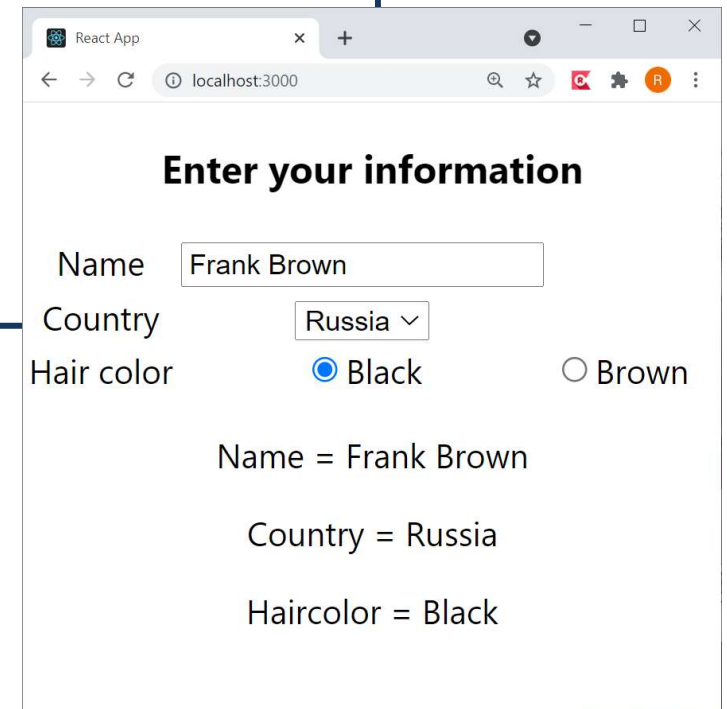
  let formpage = (
    <div>
      <form>
        <h3>Enter your information</h3>
        <table>
          <tr>
            <td>Name</td>
            <td><input
              type="text"
              value={name}
              onChange={e => setName(e.target.value)} />
            </td>
          </tr>
        </table>
      </div>
    )
}
```



The screenshot shows a web browser window with the title 'React App' and the address 'localhost:3000'. The page displays a form titled 'Enter your information'. The form contains three input fields: 'Name' with the value 'Frank Brown', 'Country' with a dropdown menu showing 'Russia', and 'Hair color' with two radio buttons, 'Black' (selected) and 'Brown'. Below the input fields, the form displays the values: 'Name = Frank Brown', 'Country = Russia', and 'Haircolor = Black'.

Complex entry form

```
<tr>
  <td>Country</td>
  <td><select
    type="text"
    value={country}
    onChange={e => setCountry(e.target.value)} >
    <option>USA</option>
    <option>India</option>
    <option>China</option>
    <option>Russia</option>
  </select>
</td>
</tr>
```



React App

localhost:3000

Enter your information

Name

Country

Hair color ☒ Black ☐ Brown

Name = Frank Brown

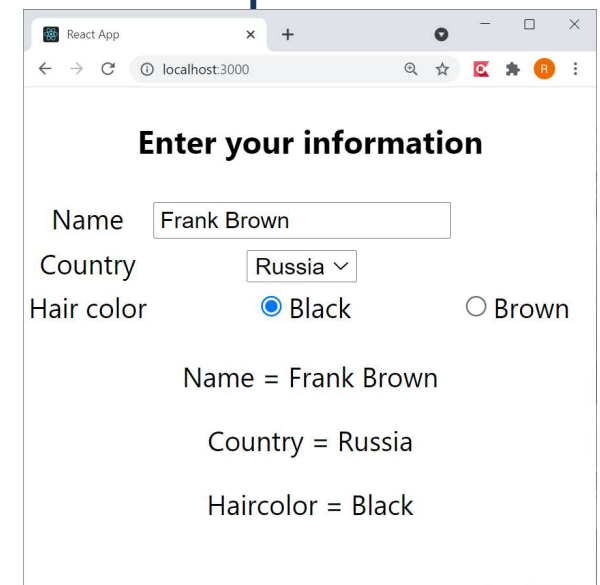
Country = Russia

Haircolor = Black

Complex entry form

```
<tr>
  <td>Hair color</td>
  <td><input
    type="radio"
    value="Black"
    checked={haircolor === "Black"}
    onChange={e => setHaircolor(e.target.value)}
  />Black</td>
  <td><input
    type="radio"
    value="Brown"
    checked={haircolor === "Brown"}
    onChange={e => setHaircolor(e.target.value)}
  />Brown</td>
</tr>
</table>
</form>

<p>Name = {name}</p>
<p>Country = {country}</p>
<p>Haircolor = {haircolor}</p>
</div>
);
return formpage;
}
```



React App

localhost:3000

Enter your information

Name

Country

Hair color ☒ Black ☐ Brown

Name = Frank Brown

Country = Russia

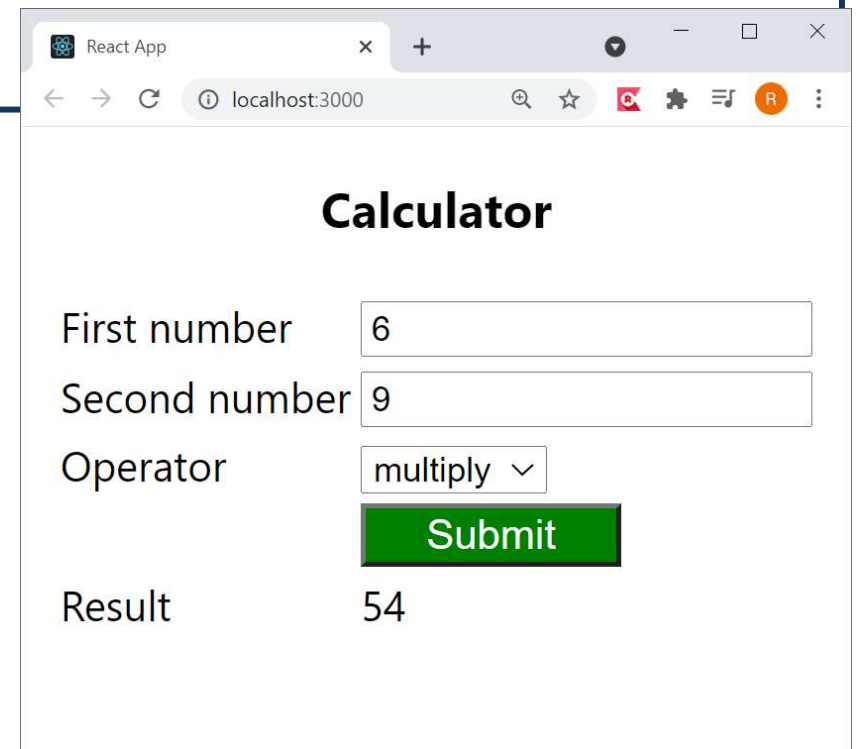
Haircolor = Black

Calculator

```
import React, { useState } from 'react';
import './Calculator.css'

export const Calculator = () => {
  const [first, setFirst] = useState(0);
  const [second, setSecond] = useState(0);
  const [operator, setOperator] = useState('');
  const [result, setResult] = useState(0);
  ...
}
```

State of the calculator



React App

localhost:3000

Calculator

First number

Second number

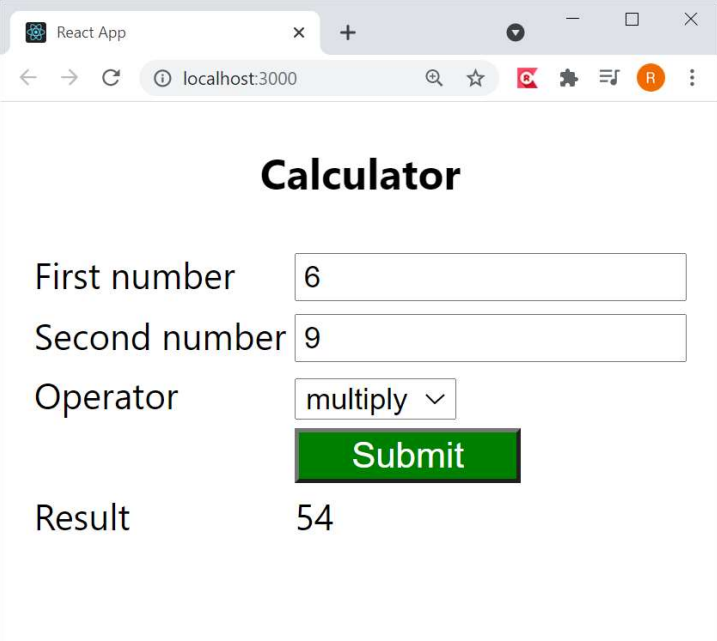
Operator

Result 54

Calculator

```
const [first, setFirst] = useState(0);
const [second, setSecond] = useState(0);

let calcpage = (
  <form>
    <h3>Calculator</h3>
    <table class="center">
      <tr>
        <td>First number</td>
        <td><input
          type="text"
          name="first"
          value={first}
          onChange={e => setFirst(e.target.value)} /></td>
      </tr>
      <tr>
        <td>Second number</td>
        <td><input
          type="text"
          name="second"
          value={second}
          onChange={e => setSecond(e.target.value)} /></td>
      </tr>
    </table>
    <div>
      Operator
      <select>
        <option>multiply</option>
      </select>
      <button>Submit</button>
    </div>
    <div>
      Result
      54
    </div>
  </form>
)
```



React App

localhost:3000

Calculator

First number

Second number

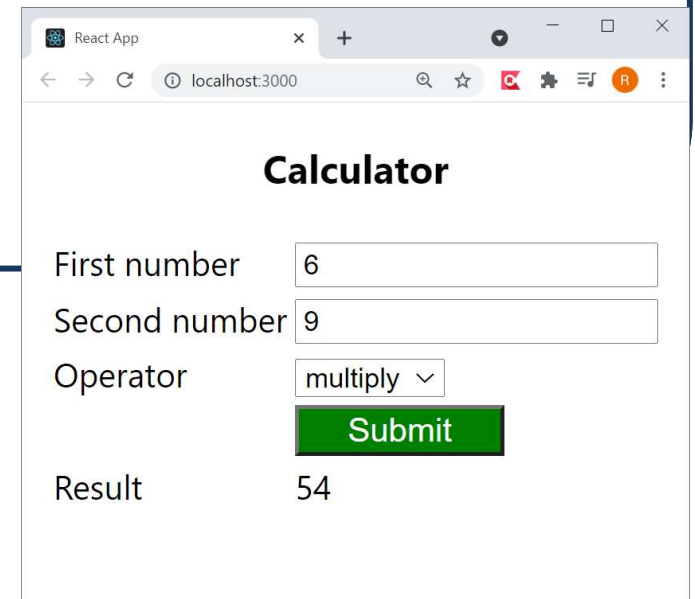
Operator multiply

Result 54

Calculator

```
const [operator, setOperator] = useState('');
```

```
<tr>
  <td>Operator</td>
  <td><select
    type="text"
    name="operator"
    value={operator}
    onChange={e => setOperator(e.target.value)} >
    <option>add</option>
    <option>subtract</option>
    <option>multiply</option>
    <option>divide</option>
    <option>clear</option>
  </select></td>
</tr>
```



React App

localhost:3000

Calculator

First number

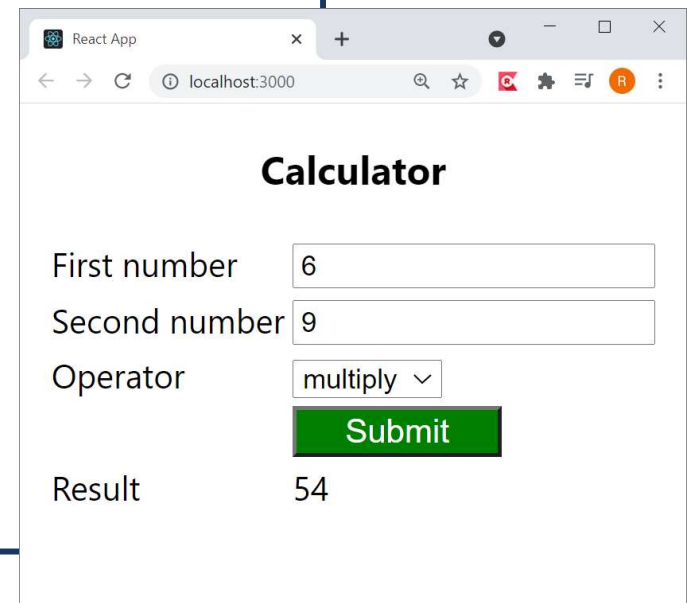
Second number

Operator

Result 54

Calculator

```
<td><button onClick={e => {  
  switch(operator) {  
    case "add":  
      setResult(parseInt(first) + parseInt(second));  
      break;  
    case "subtract":  
      setResult(parseInt(first) - parseInt(second));  
      break;  
    case "multiply":  
      setResult(parseInt(first) * parseInt(second));  
      break;  
    case "divide":  
      setResult(parseInt(first) / parseInt(second));  
      break;  
    case "clear":  
      setResult(0);  
      break;  
    default:  
      setResult(0);  
  }  
  
  e.preventDefault();  
}}>Submit</button></td>
```



React App

localhost:3000

Calculator

First number

Second number

Operator

Result 54

Calculator

```
const [result, setResult] = useState(0);

<tr>
  <td>Result</td>
  <td>{result}</td>
</tr>
</table>
</form>
);
return calcpage;
}
```

React App

localhost:3000

Calculator

First number	<input type="text" value="6"/>
Second number	<input type="text" value="9"/>
Operator	<input type="text" value="multiply"/>
	<input type="button" value="Submit"/>
Result	54

Main point

- Forms are easy to create in React by connection individual form controls to state variables. *Everything in creation is connected in the unified field of pure Consciousness.*

ROUTING

3 pages

```
import React from 'react';    Pageone.js

export const Pageone = () => {
  let page1 = (
    <h3>Page 1</h3>
  );
  return page1;
}
```

```
import React from 'react';    Pagetwo.js

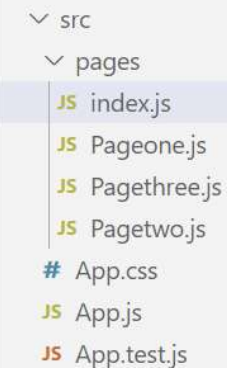
export const Pagetwo = () => {
  let page2 = (
    <h3>Page 2</h3>
  );
  return page2;
}
```

```
import React from 'react';    Pagethree.js

export const Pagethree = () => {
  let page3 = (
    <h3>Page 3</h3>
  );
  return page3;
}
```

```
import React from 'react';    index.js

export {Pageone} from './Pageone';
export {Pagetwo} from './Pagetwo';
export {Pagethree} from './Pagethree';
```



A file explorer window showing the project structure. The 'src' directory is expanded, showing a 'pages' subdirectory. Inside 'pages', there are four files: 'index.js', 'Pageone.js', 'Pagethree.js', and 'Pagetwo.js', all with a 'JS' icon. Below the 'pages' directory, there are three more files: 'App.css' with a '#' icon, 'App.js' with a 'JS' icon, and 'App.test.js' with a 'JS' icon.

Routing

Import BrowserRouter, Routes and Route component

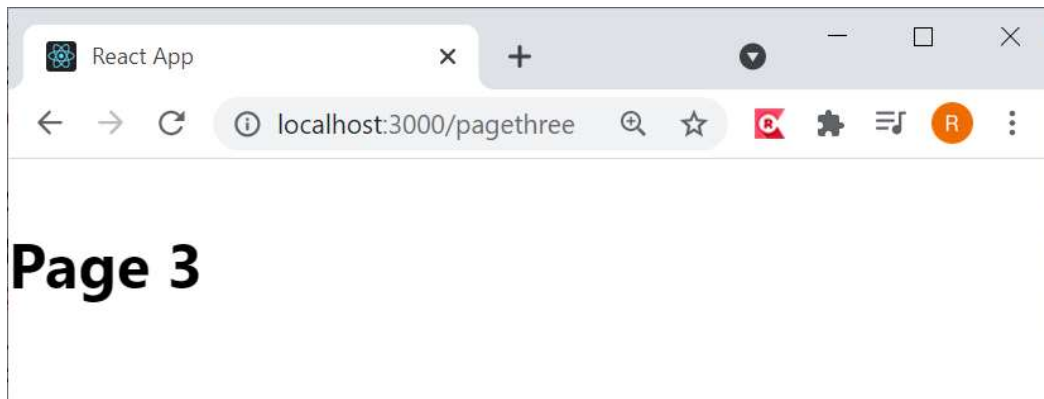
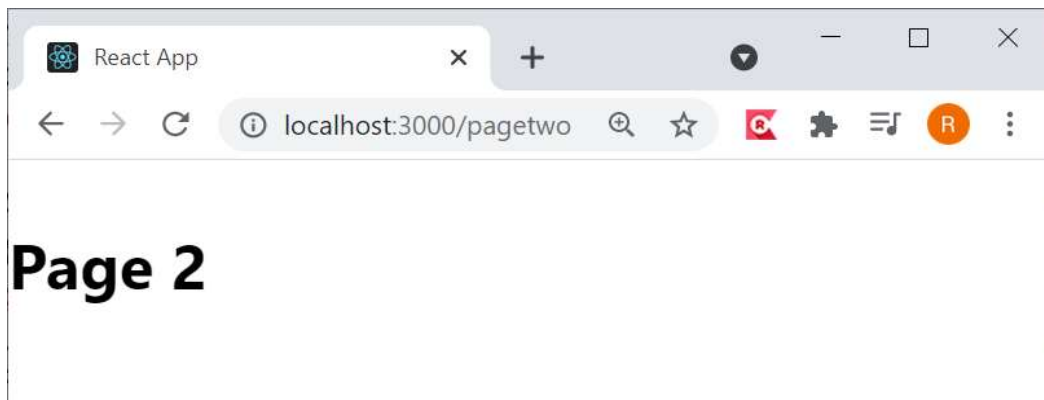
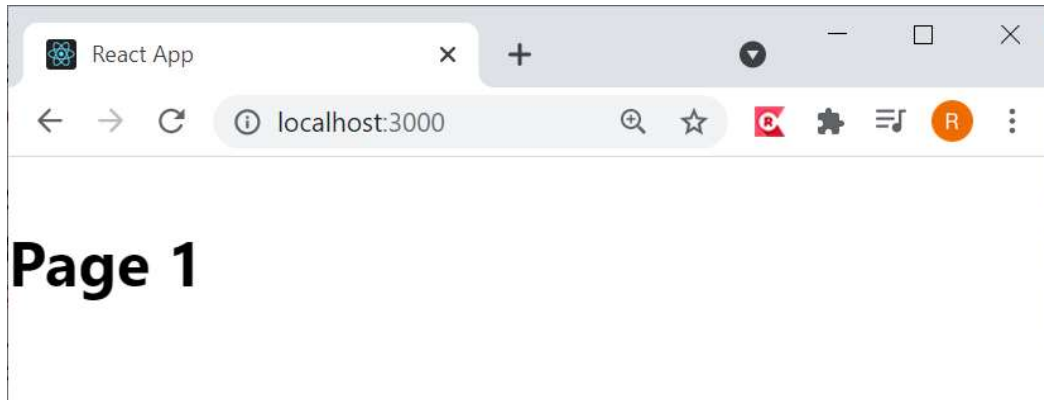
```
import { BrowserRouter, Routes, Route } from 'react-router-dom';  
import { Pageone, Pagetwo, Pagethree } from './pages';  
import './App.css';
```

Import pages from index.js in the ./pages folder

```
function App() {  
  return (  
    <div>  
      <BrowserRouter>  
        <Routes>  
          <Route path="/" element={<Pageone />} />  
          <Route path="/pageone" element={<Pageone />} />  
          <Route path="/pagetwo" element={<Pagetwo />} />  
          <Route path="/pagethree" element={<Pagethree />} />  
        </Routes>  
      </BrowserRouter>  
    </div>  
  );  
}
```

```
export default App;
```


Routing



Routing with Links

```
import React from 'react';
import { Link } from "react-router-dom";

export const Pageone = () => {
  let page1 = (
    <>
      <h3>Page 1</h3>

      <p><Link to="/">Homepage</Link></p>
      <p><Link to="/pageone">Page one</Link></p>
      <p><Link to="/pagetwo">Page two</Link></p>
      <p><Link to="/pagethree">Page three</Link></p>

    </>
  );
  return page1;
}
```

Import Link component

Use <Link> component

localhost:3000/pageone

Page 1

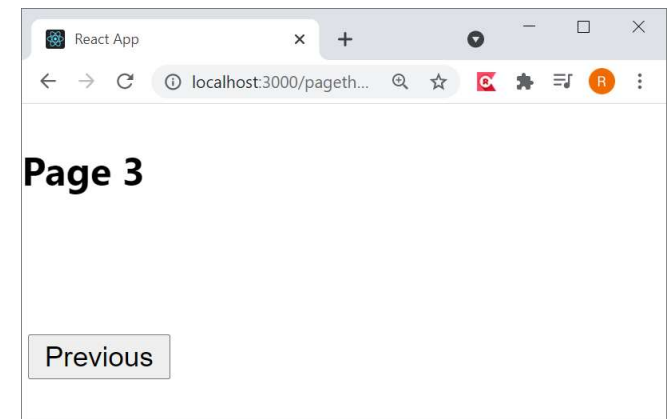
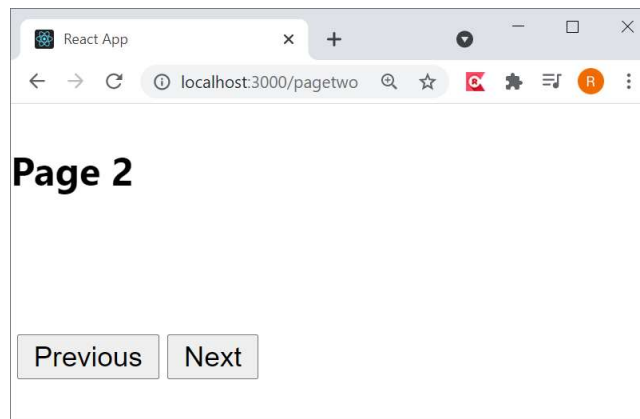
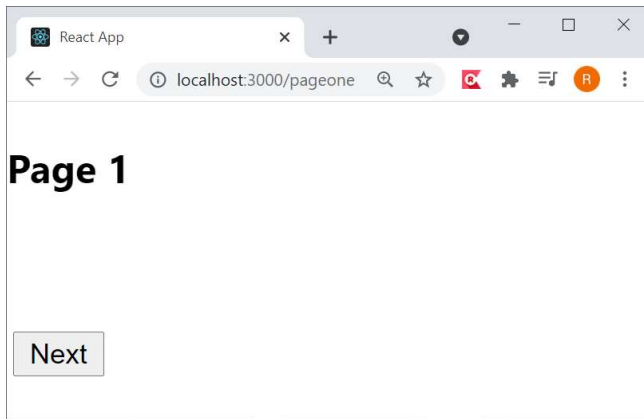
[Homepage](#)

[Page one](#)

[Page two](#)

[Page three](#)

Routing with buttons



Navigation with buttons

```
import { BrowserRouter, Routes, Route } from 'react-router-dom';
import { Pageone, Pagetwo, Pagethree } from './pages';
import './App.css';
```

App.js

```
function App() {
  return (
    <div>
      <BrowserRouter>
        <Routes>
          <Route path="/" element={<Pageone />} />
          <Route path="/pageone" element={<Pageone />} />
          <Route path="/pagetwo" element={<Pagetwo />} />
          <Route path="/pagethree" element={<Pagethree />} />
        </Routes>
      </BrowserRouter>
    </div>
  );
}
```

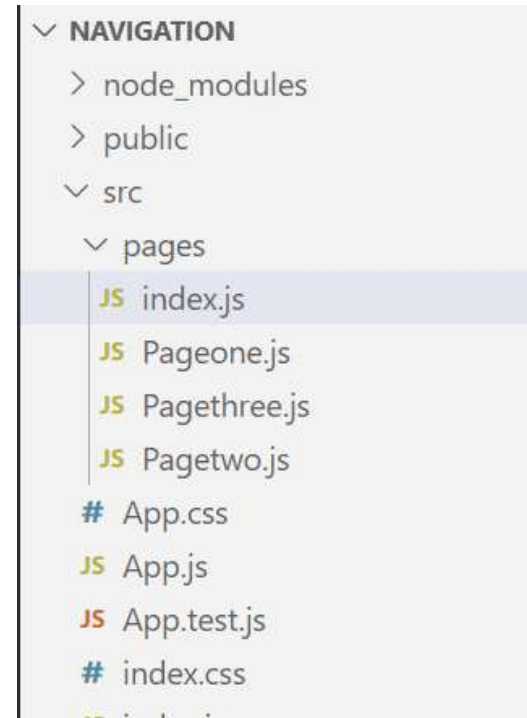
```
export default App;
```

Component that
is shown

index.js

```
import React from 'react';  
  
export {Pageone} from './Pageone';  
export {Pagetwo} from './Pagetwo';  
export {Pagethree} from './Pagethree';
```

index.js



App.js

```
import {BrowserRouter as Router, Route} from 'react-router-dom';  
import {Pageone, Pagetwo, Pagethree} from './pages';  
import './App.css';
```

Import all pages
from index.js in
the ./pages
folder

Pageone.js

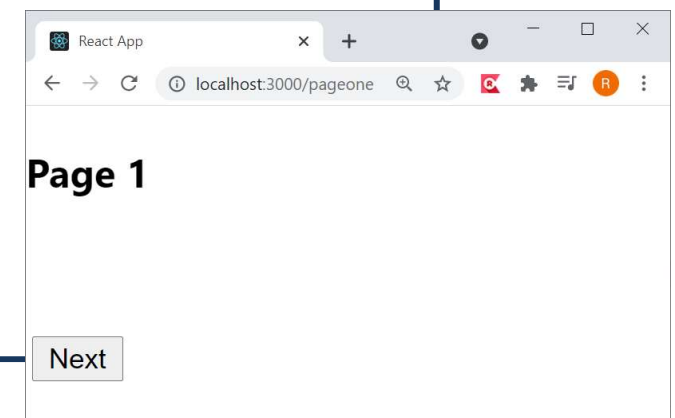
```
import React from 'react';
import {useNavigate} from 'react-router-dom';

export const Pageone = () => {
  const navigate = useNavigate();

  const gotoNextPage = () => {
    navigate('/pagetwo');
  }

  let page1 = (
    <>
    <h3>Page 1</h3>
    <br />
    <br />
    <button onClick={gotoNextPage}>Next</button>
    </>
  );
  return page1;
}
```

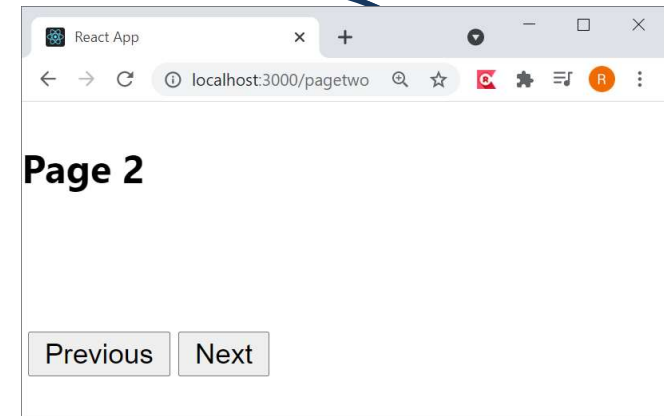
Navigate to /pagetwo



Pagetwo.js

```
import React from 'react';
import { useNavigate } from 'react-router-dom';

export const Pagetwo = () => {
  const navigate = useNavigate();
  const gotoPreviousPage = () => {
    navigate('/');
  }
  const gotoNextPage = () => {
    navigate('/pagethree');
  }
  let page2 = (
    <>
      <h3>Page 2</h3>
      <br />
      <br />
      <table>
        <tr>
          <th><button onClick={gotoPreviousPage}>Previous</button></th>
          <th><button onClick={gotoNextPage}>Next</button></th>
        </tr>
      </table>
    </>
  );
  return page2;
}
```

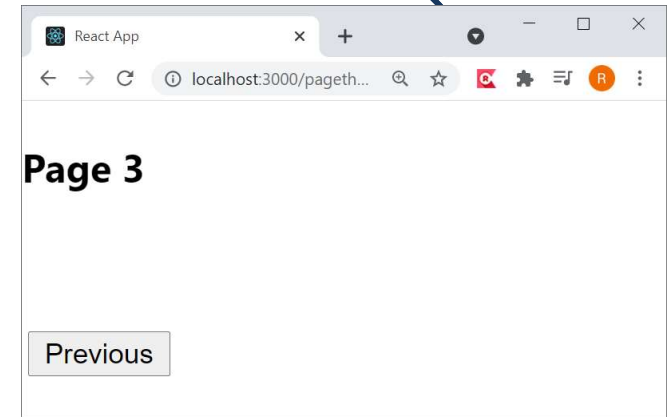


Pagethree.js

```
import React from 'react';
import { useNavigate } from 'react-router-dom';
```

```
export const Pagethree = () => {
  const navigate = useNavigate();
  const gotoPreviousPage = () => {
    navigate('/pagetwo');
  }
}
```

```
let page3 = (
  <>
    <h3>Page 3</h3>
    <br />
    <br />
    <table>
      <tr>
        <th><button onClick={gotoPreviousPage}>Previous</button></th>
      </tr>
    </table>
  </>
);
return page3;
}
```



ROUTING WITH STATE

Routing with state

React App

localhost:3000

Page 1

Name

React App

localhost:3000/paget...

Username: John Doe

Page 2

Address

React App

localhost:3000/paget...

Username: John Doe
Address: Mainstreet 1 Chicago

Page 3

Creditcard number

React App

localhost:3000/pagef...

Thank you for your order!

Username: John Doe
Address: Mainstreet 1 Chicago
Creditcard: 97865435321

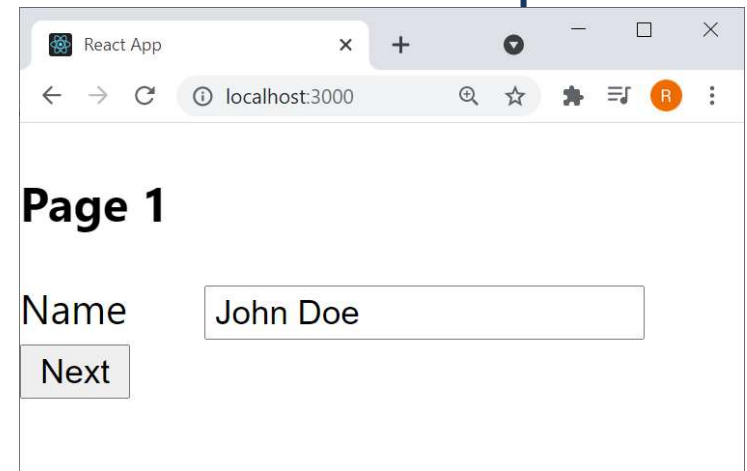
Pageone.js

```
import React, { useState } from 'react';
import {useNavigate} from 'react-router-dom';

export const Pageone = () => {
  const navigate = useNavigate();
  const [username, setUsername] = useState("");
  const gotoNextPage = () => {
    navigate('/pagetwo', {state:{username:username}});
  }
}
```

```
let page1 = (
  <form>
    <h3>Page 1</h3>
    <div>
      Name
      <input
        type="text"
        placeholder="Username"
        value={username}
        onChange={e => setUsername(e.target.value)} />
    </div>
    <button onClick={gotoNextPage}>Next</button>
  </form>
);
return page1;
```

Pass the
username to
pagetwo



Pagetwo.js

```
import React, { useState } from 'react';
import { useLocation, useNavigate } from 'react-router-dom';

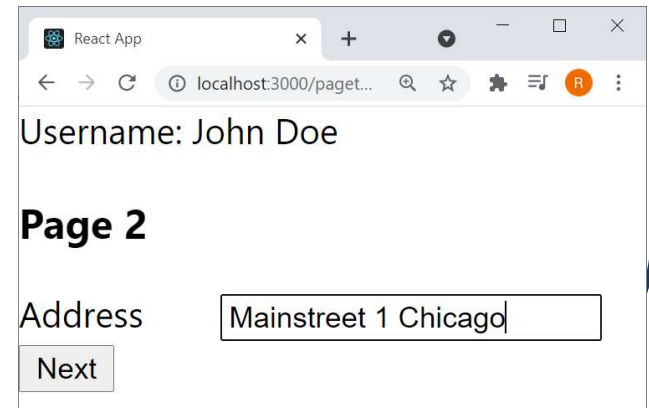
export const Pagetwo = () => {
  const location = useLocation();
  const navigate = useNavigate();
  const username = location.state.username;
  const [address, setAddress] = useState("");
  const handleOnSubmit = () =>
    navigate('/pagethree', {state:{username:username, address : address}});
}

let page2 = (
  <div>
    <div>Username: {username}</div>
    <form>
      <h3>Page 2</h3>
      <div>
        Address
        <input
          type="text"
          placeholder="Address"
          value={address}
          onChange={e => setAddress(e.target.value)} />
      </div>
      <button onClick={handleOnSubmit}>Next</button>
    </form>
  </div>
);

return page2;
```

Get username

Pass the username and address to pagethree



React App

localhost:3000/paget...

Username: John Doe

Page 2

Address

Next

Pagethree.js

```
import React, { useState } from 'react';
import { useLocation, useNavigate } from 'react-router-dom';
export const Pagethree = (props) => {
  const location = useLocation();
  const navigate = useNavigate();
  const username = location.state.username;
  const address = location.state.address;
  const [creditcard, setCreditcard] = useState("");
  const handleOnSubmit = () => {
    navigate('/pagefour', {state:{username:username, address : address, creditcard
: creditcard}});
  }
  let page3 = (
    <div>
      <div>Username: {username}</div>
      <div>Address: {address}</div>
      <form>
        <h3>Page 3</h3>
        <div>
          Creditcard number
          <input
            type="text"
            placeholder="Address"
            value={creditcard}
            onChange={e => setCreditcard(e.target.value)} />
        </div>
        <button onClick={handleOnSubmit}>Next</button>
      </form>
    </div>
  );
};
```

Get username

Get address

Pass the username,
address and creditcard to
pagefour

React App

localhost:3000/paget...

Username: John Doe
Address: Mainstreet 1 Chicago

Page 3

Creditcard number

97865435321

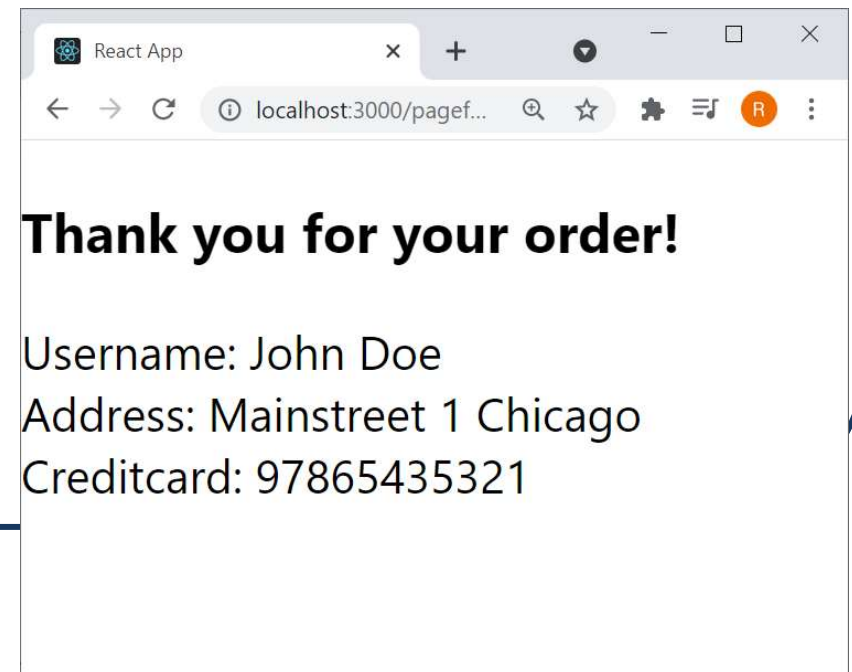
Next

Pagefour.js

```
import React from 'react';
import { useLocation } from 'react-router-dom';

export const Pagefour = (props) => {
  const location = useLocation();
  const username = location.state.username;
  const address = location.state.address;
  const creditcard = location.state.creditcard;

  let page4 = (
    <div>
      <h3>Thank you for your order!</h3>
      <div>Username: {username}</div>
      <div>Address: {address}</div>
      <div>Creditcard: {creditcard}</div>
    </div>
  );
  return page4;
}
```



App.js

```
import { BrowserRouter, Routes, Route } from 'react-router-dom';
import { Pageone, Pagetwo, Pagethree, Pagefour } from './pages';
import './App.css';

function App() {
  return (
    <div>
      <BrowserRouter>
        <Routes>
          <Route path="/" element={<Pageone />} />
          <Route path="/pagetwo" element={<Pagetwo />} />
          <Route path="/pagethree" element={<Pagethree />} />
          <Route path="/pagefour" element={<Pagefour />} />
        </Routes>
      </BrowserRouter>
    </div>
  );
}

export default App;
```

Main point

- The React Router makes it easy to navigate between UI components. *Daily contact with pure Consciousness results in more support of Nature in our daily navigation through life.*

Connecting the parts of knowledge with the wholeness of knowledge

1. Forms in React store their state in the local component.
2. The navigate() function allows to push state to the next page.

-
3. **Transcendental consciousness** is the source of all creation.
 4. **Wholeness moving within itself:** In Unity Consciousness, one realizes that all relative state is just an expressions of one's own Self.