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**Semester:** 5th semester

**LAB REPORT 7**  
**WEB TECHNOLOGIES**  
**React and JSX**



**Institute of Space and Technology**

**Submitted to:** Miss Maryam

## What is React?

React is a JavaScript library used to build user interfaces (UIs) — especially for web applications that update data frequently (Facebook, Instagram, dashboards, etc.).

React helps you build fast, interactive, and reusable components in your website or app.

### Main.jsx:

```
src > main.jsx
1  import React from 'react';
2  import ReactDOM from 'react-dom/client';
3  import App from './App.jsx';
4  import './index.css';
5
6  ReactDOM.createRoot(document.getElementById('root')).render(
7    <React.StrictMode>
8      <App />
9    </React.StrictMode>
10 );
11
```

### Student.jsx:

```
src > student.jsx > ...
1  import React from 'react';
2
3  export default function Student({ name, age }) {
4    return (
5      <div style={{ fontSize: 20, marginTop: 10 }}>
6        <p><strong>Name:</strong> {name}</p>
7        <p><strong>Age:</strong> {age}</p>
8      </div>
9    );
10 }
11
```

## ProfileCard.jsx:



A screenshot of a code editor showing the `ProfileCard.jsx` file. The file contains JSX code for a profile card component. It includes a styled `<div>` for the card container with flexbox styling, an `<img>` tag to display a user's profile picture, and nested `<div>` elements for the name and role information.

```
src > src > ProfileCard.jsx > ...
1  import React from 'react';
2
3  export default function ProfileCard({ name, role, imageUrl }) {
4    return (
5      <div
6        style={{
7          display: 'flex',
8          alignItems: 'center',
9          gap: '20px',
10         background: '#ffffff',
11         padding: '20px',
12         borderRadius: 16,
13         boxShadow: '0 5px 20px rgba(0,0,0,0.1)',
14         marginTop: 20,
15         maxWidth: 450
16        }}
17      >
18        <img
19          src={imageUrl}
20          alt={name}
21          style={{
22            width: 100,
23            height: 100,
24            borderRadius: 12,
25            objectFit: 'cover'
26          }}
27        />
28
29        <div>
30          <h3 style={{ margin: 0, fontSize: 22 }}>{name}</h3>
31          <p style={{ margin: 0, fontSize: 16, color: '#555' }}>{role}</p>
32        </div>
33      </div>
34    .
35  }
```

## Index.css:



A screenshot of a code editor showing the `index.css` file. It contains CSS rules for the `body` and `img` elements, setting the body to have zero margin and padding, a sans-serif font family, and a light gray background. It also sets the `img` element to have no user selection.

```
src > # index.css > ...
1  body {
2    margin: 0;
3    padding: 0;
4    font-family: 'Poppins', Arial, sans-serif;
5    background: #f0f4f8;
6  }
7
8  h1, h2, h3, p {
9    margin: 0;
10 }
11
12 img {
13   user-select: none;
14 }
```

## Task1

```
/* Header */
<h1 style={{fontSize: 42, color: '#1f2937', marginBottom: 10}}>React Lab 7</h1>
<h2 style={{marginTop: 40, fontSize: 28, color: '#1f2937'}}>Task 1 – Create a simple JSX element

/* Button Counter */
<button
  onClick={() => setCount(c => c + 1)}
  style={{
    marginTop: 20,
    padding: '12px 28px',
    background: '#6366f1',
    color: 'white',
    fontWeight: 600,
    fontSize: 16,
    border: 'none',
    borderRadius: 10,
    cursor: 'pointer',
    transition: '0.3s',
  }}
  onMouseOver={e => e.currentTarget.style.background = '#4f46e5'}
  onMouseOut={e => e.currentTarget.style.background = '#6366f1'}
>
  /* Task 2: Function Result */
  Click me ({count})
</button>

/* Banner Image */
<div style={{marginTop: 30}}>
  
```

## Task2

```
/* Task 2: Function Result */
<h2 style={{marginTop: 40, fontSize: 28, color: '#1f2937'}}>Task 2 – Create a simple function and show its result in JSX</h2>
<h3> 2 + 3 = <span style={{color: '#6366f1', fontWeight: 600}}>{2 + 3}</span>
</h3>
```

## Task3

```
/* Task 3: Student Component */
<section style={{marginTop: 40}}>
  <h2 style={{fontSize: 28, color: '#1f2937'}}>Task 3 – Student Component</h2>
  <Student name="Ali" age={20} />
</section>
```

## Task 4

```
/* Task 4: Profile Card */
<section style={{marginTop: 40}}>
  <h2 style={{fontSize: 28, color: '#1f2937'}>Task 4 – Profile Card</h2>
  <ProfileCard
    name="Sara Ahmed"
    role="Frontend Developer"
    imageUrl="https://img.freepik.com/premium-photo/portrait-young-professional-business-woman-confidently-smiling-camera_564692-2364.jpg"
  />
</section>
</div>
</div>
)
```

### App.jsx:

```
File Edit Selection View Go Run ... Lab web
index.html main.jsx App.jsx Student.jsx ProfileCard.jsx index.css
my-app > src > App.jsx
1 import React, { useState } from 'react'
2 import Student from './components/Student'
3 import ProfileCard from './components/ProfileCard'
4
5 export default function App() {
6   const [count, setCount] = useState(0)
7
8   return (
9     <div style={{
10       fontFamily: 'Poppins, Arial, sans-serif',
11       background: '#fff4f8',
12       minHeight: '100vh',
13       padding: '40px 20px'
14     }>
15     <div style={{
16       maxWidth: 900,
17       margin: '0 auto',
18       background: '#ffffff',
19       padding: '40px',
20       borderRadius: 20,
21       boxShadow: '0 15px 35px #rgba(0,0,0,0.1)'
22     }>
23     /* Header */
24     <h1 style={{fontSize: 42, color: '#1f2937', marginBottom: 10}}>React Lab 7</h1>
25     <h2 style={{marginTop: 40, fontSize: 28, color: '#1f2937'}}>Task 1 – Create a simple JSX element</h2>
26
27     /* Button Counter */
28     <button
29       onClick={() => setCount(c => c + 1)}
30       style={{
31         marginTop: 20,
32         padding: '12px 28px',
33         background: '#6366f1',
34         color: 'white',
35         fontWeight: 600,
36         fontSize: 16,
37         border: 'none',
38         borderRadius: 10,
39         cursor: 'pointer',
40         transition: 'all 0.2s'
41       }}>
42       +</button>
43   
```

```

File Edit Selection View Go Run ...
index.html main.jsx App.jsx Student.jsx ProfileCard.jsx # index.css
my-app > src > App.jsx > App
5  export default function App() {
45     /* Task 2: Function Result */
46     Click me ({count})
47     </button>
48
49     /* Banner Image */
50     <div style={{marginTop: 30}}>
51         
55         />
56     </div>
57
58     /* Task 2: Function Result */
59     <h2 style={{marginTop: 40, fontSize: 28, color: '#1f2937'}}>Task 2 – Create a simple function and show its result in JSX</h2>
60     <h3> 2 + 3 = <span style={{color: '#6366f1', fontWeight: 600}}>2 + 3</span></h3>
61
62
63     /* Task 3: Student Component */
64     <section style={{marginTop: 40}}>
65         <h2 style={{fontSize: 28, color: '#1f2937'}}>Task 3 – Student Component</h2>
66         <Student name="Ali" age={20} />
67     </section>
68
69     /* Task 4: Profile Card */
70     <section style={{marginTop: 40}}>
71         <h2 style={{fontSize: 28, color: '#1f2937'}}>Task 4 – Profile Card</h2>
72         <ProfileCard
73             name="Sara Ahmed"
74             role="Frontend Developer"
75             imageUrl="https://img.freepik.com/premium-photo/portrait-young-professional-business-woman-confidently-smiling-camera_564692-2364.jpg">
76         />
77     </section>
78     </div>
79 </div>
80
81
82

```

Ln 10, Col 48 Spaces: 2 UTF-8 LF {} JavaScript JSX 🔍 Go Live 🔥 BLACKBOXAI: Open Chat 🚀

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## Output:

# React Lab 7

**Task 1 – Create a simple JSX element**

**Task 2 – Create a simple function and show its result in JSX**

2 + 3 = 5

**CLICK HERE**

**Task 4 – Student Component**

Name: Ali Age: 20

Sara Ahmed  
Frontend Developer