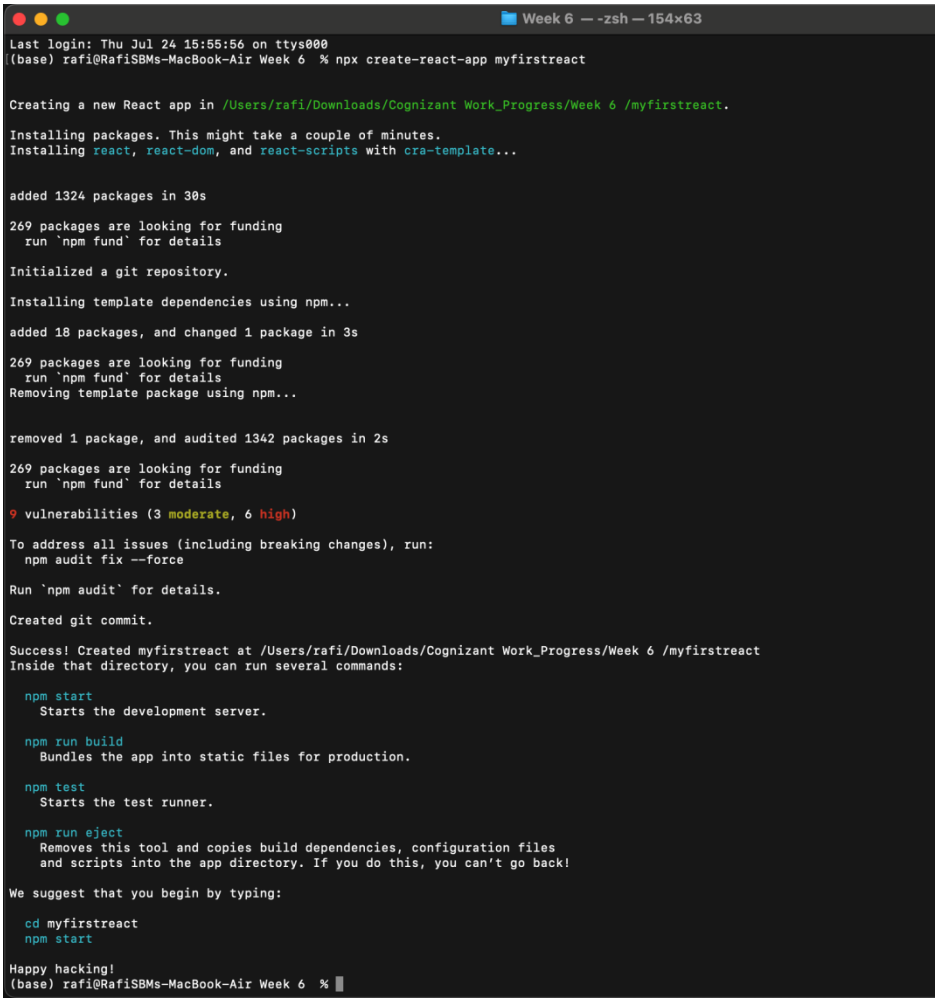
SuperSet ID : 6314413 **Shaik Balaji Mahammad Rafi**

HANDSON EXERCISES - WEEK 6

Skill : React

File : 1. ReactJS-HOL.docx

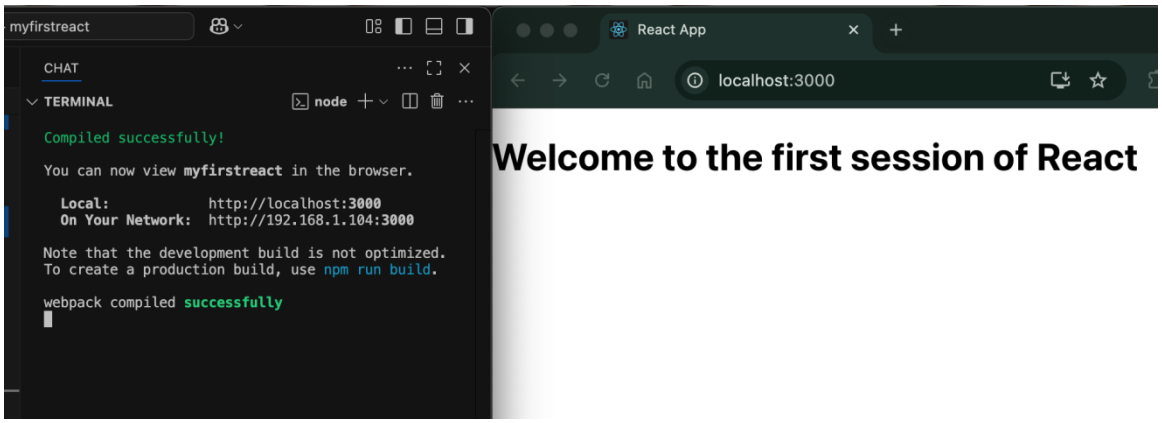
Exercise : My First React Application



App.js :

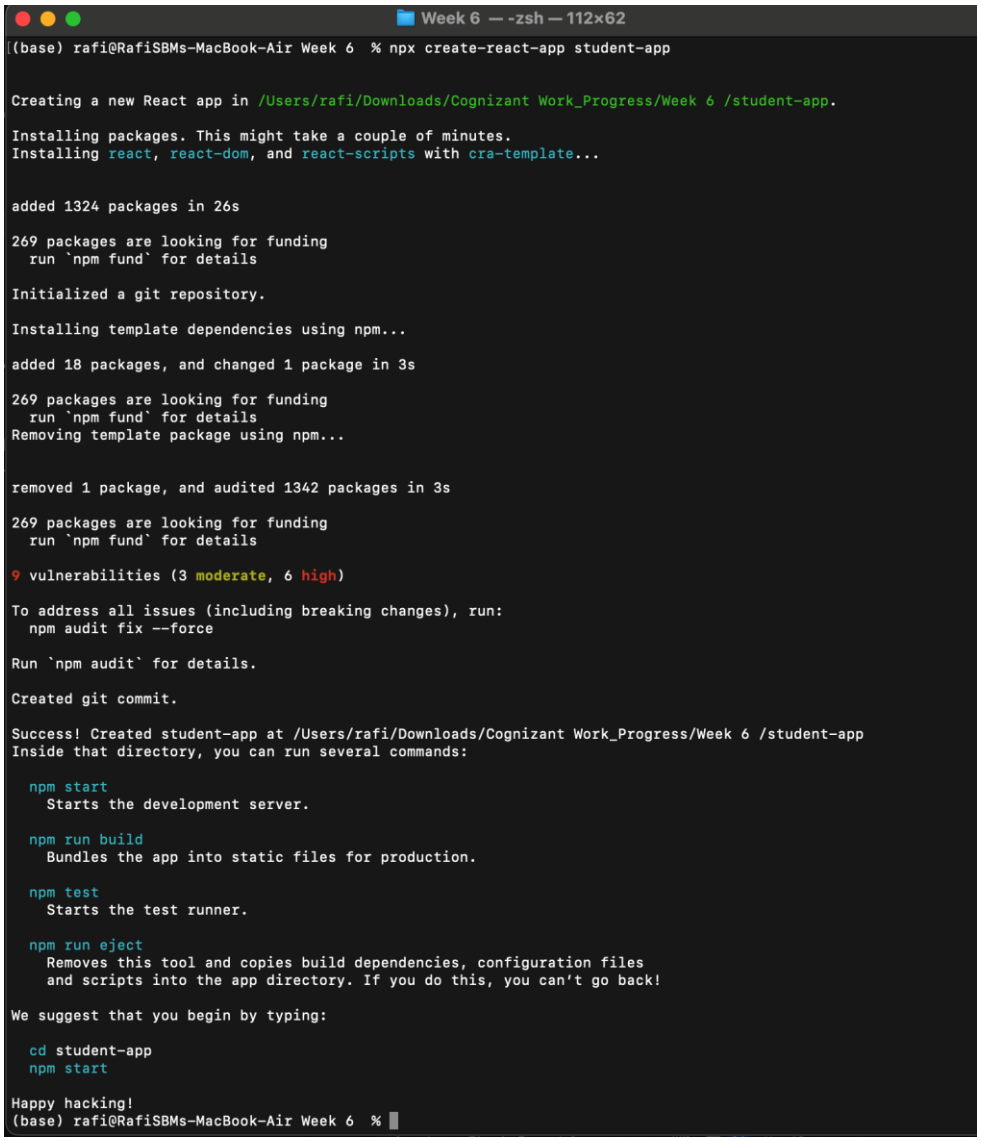
```
import React from 'react';
function App() {
  return (
    <div>
      <h1>Welcome to the first session of React</h1>
    </div>
  );
}
export default App;
```

Output :



File : 2. ReactJS-HOL.docx

Exercise : My First React Application



Home.js :

```
import React from 'react';

function Home() {
  return (
    <div>
      <h2>Welcome to the Home page of Student Management Portal</h2>
    </div>
  );
}
export default Home;
```

About.js :

```
import React from 'react';

function About() {
  return (
    <div>
      <h2>Welcome to the About page of the Student Management Portal</h2>
    </div>
  );
}
export default About;
```

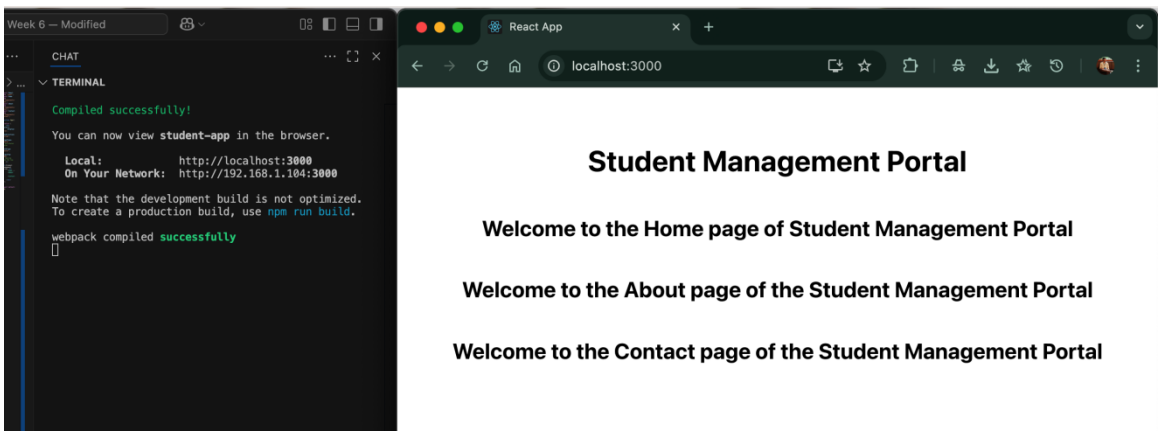
Contact.js :

```
import React from 'react';
function Contact() {
  return (
    <div>
      <h2>Welcome to the Contact page of the Student Management Portal</h2>
    </div>
  );
}
export default Contact;
```

App.js :

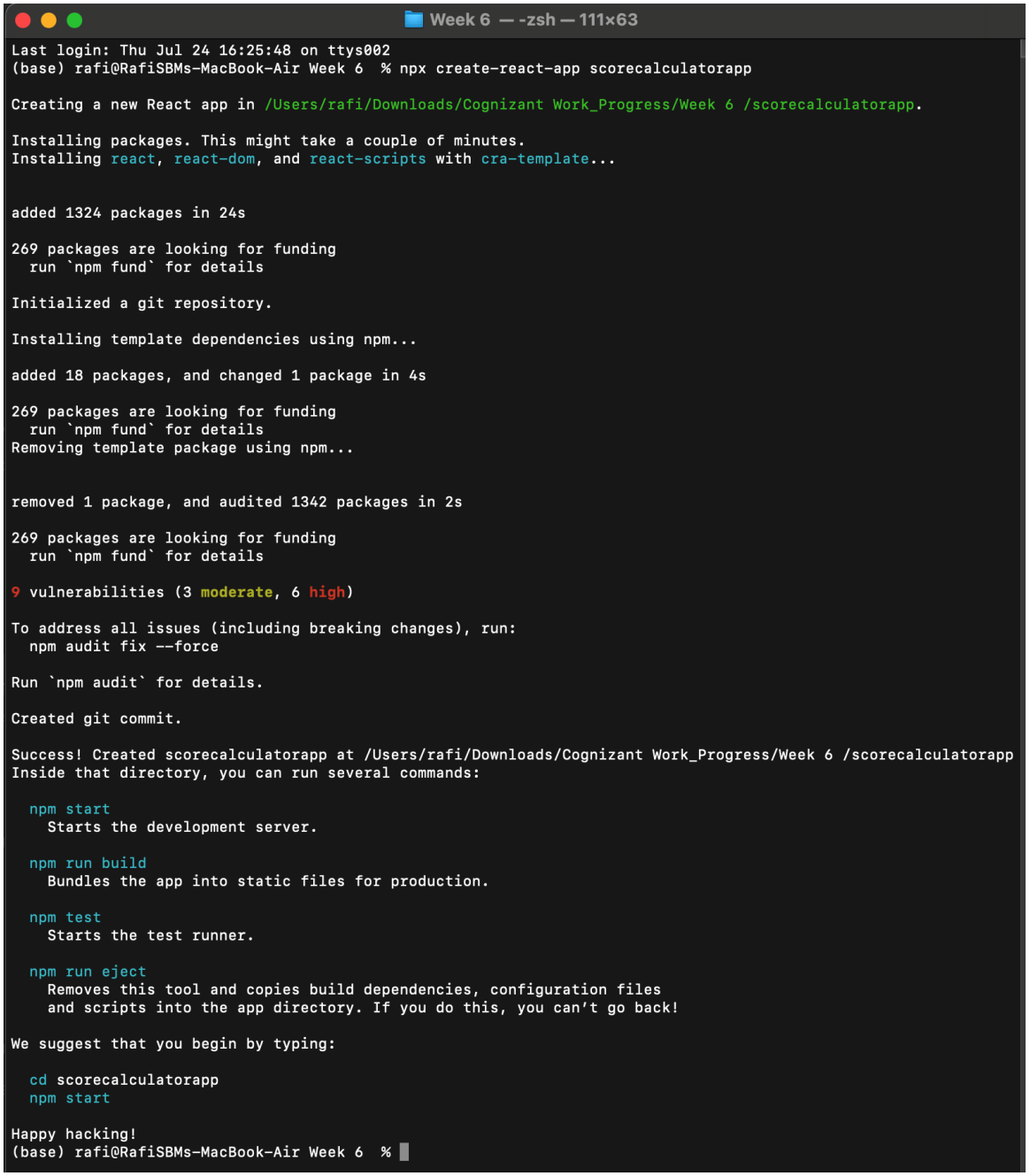
```
import React from 'react';
import Home from './Components/Home';
import About from './Components/About';
import Contact from './Components/Contact';

function App() {
  return (
    <div style={{
      display: 'flex',
      flexDirection: 'column',
      alignItems: 'center',     // horizontal center
      textAlign: 'center',
      marginTop: '40px'         // spacing from the top
    }}>
      <h1>Student Management Portal</h1>
      <Home />
      <About />
      <Contact />
    </div>
  );
}
export default App;
```

OUTPUT :



File : 3. ReactJS-HOL.docx

Exercise : Funcitonal Component with Props and External Styles



CalculateScore.js :

```
import React from 'react';
import '../Stylesheets/mystyle.css';

function CalculateScore(props) {
  const average = props.Total / props.Goal;
```

```
  return (
    <div className="score-box">
      <h2>Student Score Report</h2>
      <p><strong>Name:</strong> {props.Name}</p>
      <p><strong>School:</strong> {props.School}</p>
      <p><strong>Total Score:</strong> {props.Total}</p>
      <p><strong>Goal:</strong> {props.Goal}</p>
      <p><strong>Average Score:</strong> {average.toFixed(2)}</p>
    </div>
  );
}
export default CalculateScore;
```

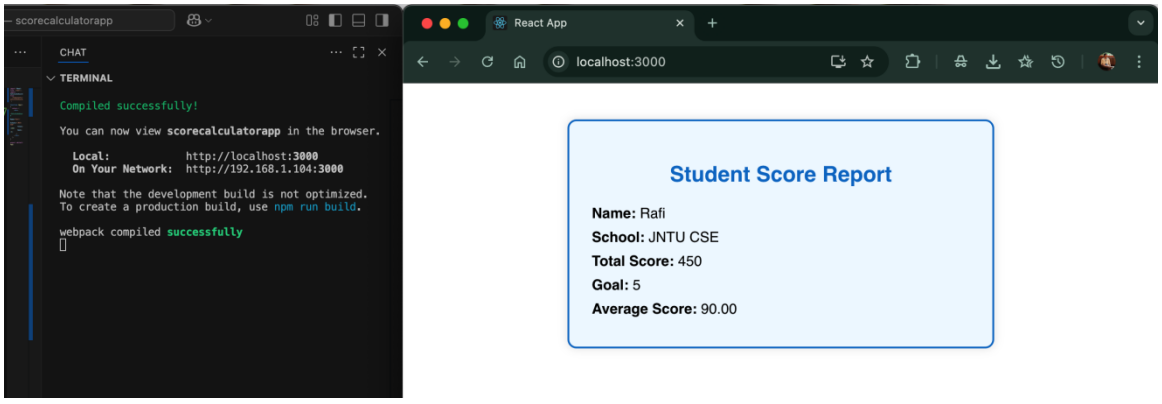
mystyle.css :

```
.score-box {
  width: 50%;
  margin: 40px auto;
  padding: 25px;
  background-color: #f0f8ff;
  border: 2px solid #007acc;
  border-radius: 10px;
  box-shadow: 0 0 10px rgba(0, 0, 0, 0.1);
  text-align: left;
  font-family: 'Segoe UI', sans-serif;
}

.score-box h2 {
  text-align: center;
  color: #007acc;
}

.score-box p {
  font-size: 16px;
  margin: 8px 0;
}
```

App.js :

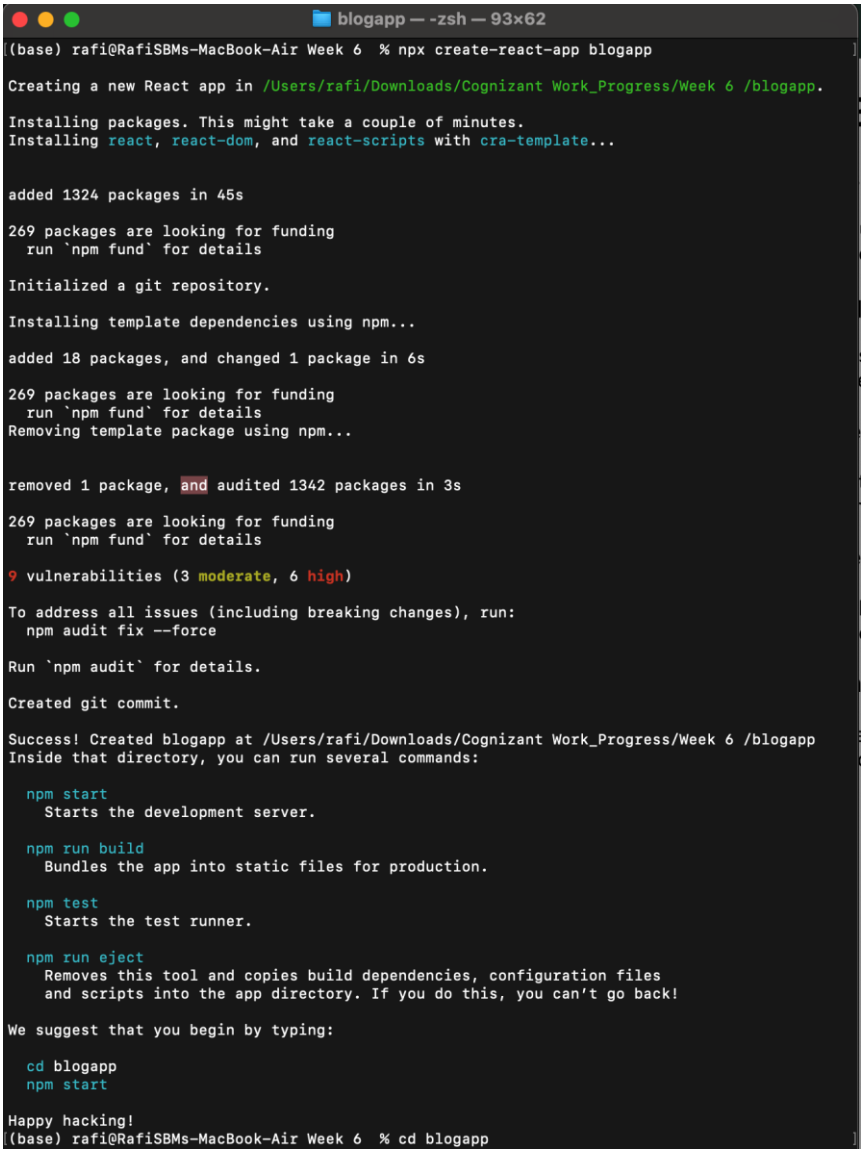
```
import React from 'react';
import CalculateScore from './Components/CalculateScore';

function App() {
  return (
    <div>
      <CalculateScore
        Name="Rafi"
        School="JNTU CSE"
        Total={450}
        Goal={5}
      />
    </div>
  );
}

export default App;
```

OUTPUT :



File : 4. ReactJS-HOL.docx

Exercise : Working with React Lifecycle Methods



Post.js :

```
import React from 'react';
function Post({ title, body }) {
  return (
    <div className="post">
      <h3>{title}</h3>
      <p>{body}</p>
    </div>
  );
}
export default Post;
```

Posts.js :

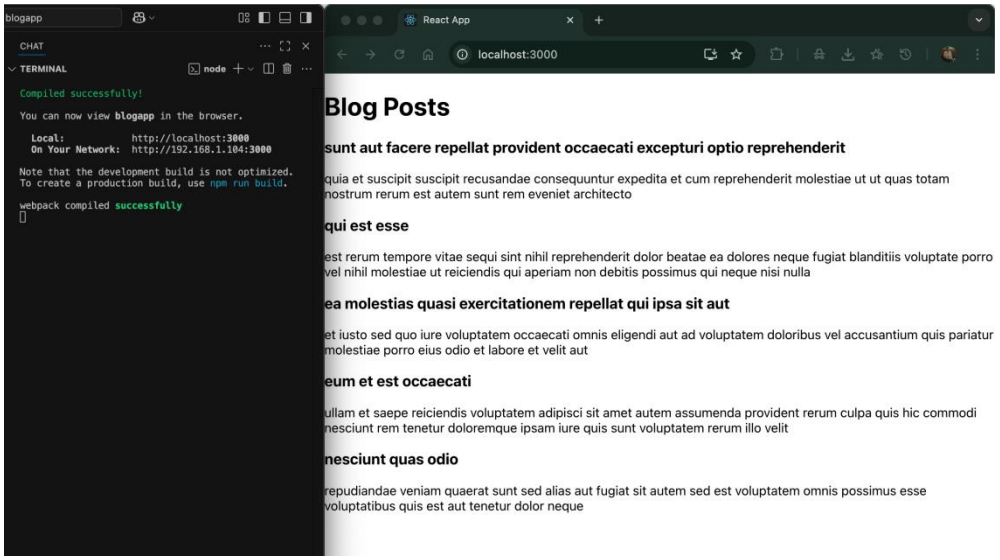
```
import React, { Component } from 'react';
import Post from './Post';

class Posts extends Component {
 constructor(props) {
  super(props);
  this.state = {
   posts: [],
   hasError: false,
  };
 }
 componentDidMount() {
  this.loadPosts();
 }
 loadPosts() {
  fetch('https://jsonplaceholder.typicode.com/posts')
   .then(response => response.json())
   .then(data => this.setState({ posts: data.slice(0, 5) })) // limiting to 5 for display
   .catch(error => {
    console.error('Error fetching posts:', error);
    this.setState({ hasError: true });
   });
 }

 componentDidCatch(error, info) {
  alert("An error occurred: " + error.message);
  this.setState({ hasError: true });
 }

 render() {
  if (this.state.hasError) {
   return <h2>Something went wrong while loading posts.</h2>;
  }
```

```
    return (
      <div>
        <h1>Blog Posts</h1>
        {this.state.posts.map(post => (
          <Post key={post.id} title={post.title} body={post.body} />
        ))}
      </div>
    );
  }
}

export default Posts;
```

App.js :

```
import React from 'react';
import Posts from './Posts';
function App() {
  return (
    <div className="App">
      <Posts />
    </div>
  );
}
export default App;
```

OUTPUT :



File : 5. ReactJS-HOL.docx

Exercise : Styling React Components with CSS Modules & Inline Styles

src/components/CohortDetails.module.css :

```
.box {
  width: 300px;
  display: inline-block;
  vertical-align: top;
  margin: 10px;
  padding: 10px 20px;
  border: 1px solid black;
  border-radius: 10px;
  font-family: 'Segoe UI', sans-serif;
  text-align: left;
}

dt {
  font-weight: 500;
  margin-top: 8px;
}
```

src/components/CohortDetails.js :

```
import React from 'react';
import styles from './CohortDetails.module.css';

function CohortDetails({ name, status, startDate, coach, trainer }) {
  const headingStyle = {
    color: status.toLowerCase() === 'ongoing' ? 'green' : 'blue',
    fontWeight: 'bold'
  };

  return (
    <div className={styles.box}>
      <h3 style={headingStyle}>{name}</h3>
      <dl>
        <dt>Started On</dt>
```

```
        <dd>{startDate}</dd>
        <dt>Current Status</dt>
        <dd>{status}</dd>
        <dt>Coach</dt>
        <dd>{coach}</dd>
        <dt>Trainer</dt>
        <dd>{trainer}</dd>
      </dl>
    </div>
  );
}

export default CohortDetails;
```

App.js

```
import React from 'react';
import CohortDetails from './components/CohortDetails';

function App() {
  return (
    <div style={{ padding: '20px' }}>
      <h2 style={{ textAlign: 'left' }}>Cohorts Details</h2>

      <div>
        <CohortDetails
          name="INTADMDF10 - .NET FSD"
          status="Scheduled"
          startDate="22-Feb-2022"
          coach="Aathma"
          trainer="Jojo Jose"
        />

        <CohortDetails
          name="ADM21JF014 - Java FSD"
          status="Ongoing"
```

```
        startDate="10-Sep-2021"
        coach="Apoorv"
        trainer="Elisa Smith"
      />

      <CohortDetails
        name="CDBJF21025 - Java FSD"
        status="Ongoing"
        startDate="24-Dec-2021"
        coach="Aathma"
        trainer="John Doe"
      />
    </div>
  </div>
 );
}

export default App;
```

OUTPUT :

Cohorts Details

INTADMDF10 - .NET FSD
Started On 22-Feb-2022
Current Status Scheduled
Coach Aathma
Trainer Jojo Jose

ADM21JF014 - Java FSD
Started On 10-Sep-2021
Current Status Ongoing
Coach Apoorv
Trainer Elisa Smith

CDBJF21025 - Java FSD
Started On 24-Dec-2021
Current Status Ongoing
Coach Aathma
Trainer John Doe

File : 6. ReactJS-HOL.docx

Exercise : Implementing Navigation & Parameterized Routes in React

trainer.js :

```
class Trainer {
  constructor(TrainerId, Name, Email, Phone, Technology, Skills) {
    this.TrainerId = TrainerId;
    this.Name = Name;
    this.Email = Email;
    this.Phone = Phone;
    this.Technology = Technology;
    this.Skills = Skills;
  }
}

export default Trainer;
```

TrainersMock.js :

```
import Trainer from "./trainer";

const trainers = [
  new Trainer(101, "Aathma", "aathma@abc.com", "9876543210", "Java", ["Spring", "Hibernate"]),
  new Trainer(102, "Jojo", "jojo@abc.com", "9876543211", "React", ["Hooks", "Redux"]),
  new Trainer(103, "John", "john@abc.com", "9876543212", "Python", ["Flask", "Django"]),
];

export default trainers;
```

components/Home.js :

```
import React from 'react';

function Home() {
  return (
```

```
    <div>
      <h2>Welcome to Cognizant Trainer Portal</h2>
      <p>This SPA shows the list of trainers and their details.</p>
    </div>
  );
}

export default Home;
```

components/TrainerList.js :

```
import React from 'react';
import { Link } from 'react-router-dom';
import trainers from '../TrainerMock';

function TrainerList() {
  return (
    <div>
      <h2>Trainer List</h2>
      <ul>
        {trainers.map((t) => (
          <li key={t.TrainerId}>
            <Link to={`/trainers/${t.TrainerId}`}>{t.Name}</Link>
          </li>
        ))}
      </ul>
    </div>
  );
}

export default TrainerList;
```

components/TrainerDetails.js :

```
import React from 'react';
import { useParams } from 'react-router-dom';
import trainers from '../TrainerMock';

function TrainerDetails() {
```

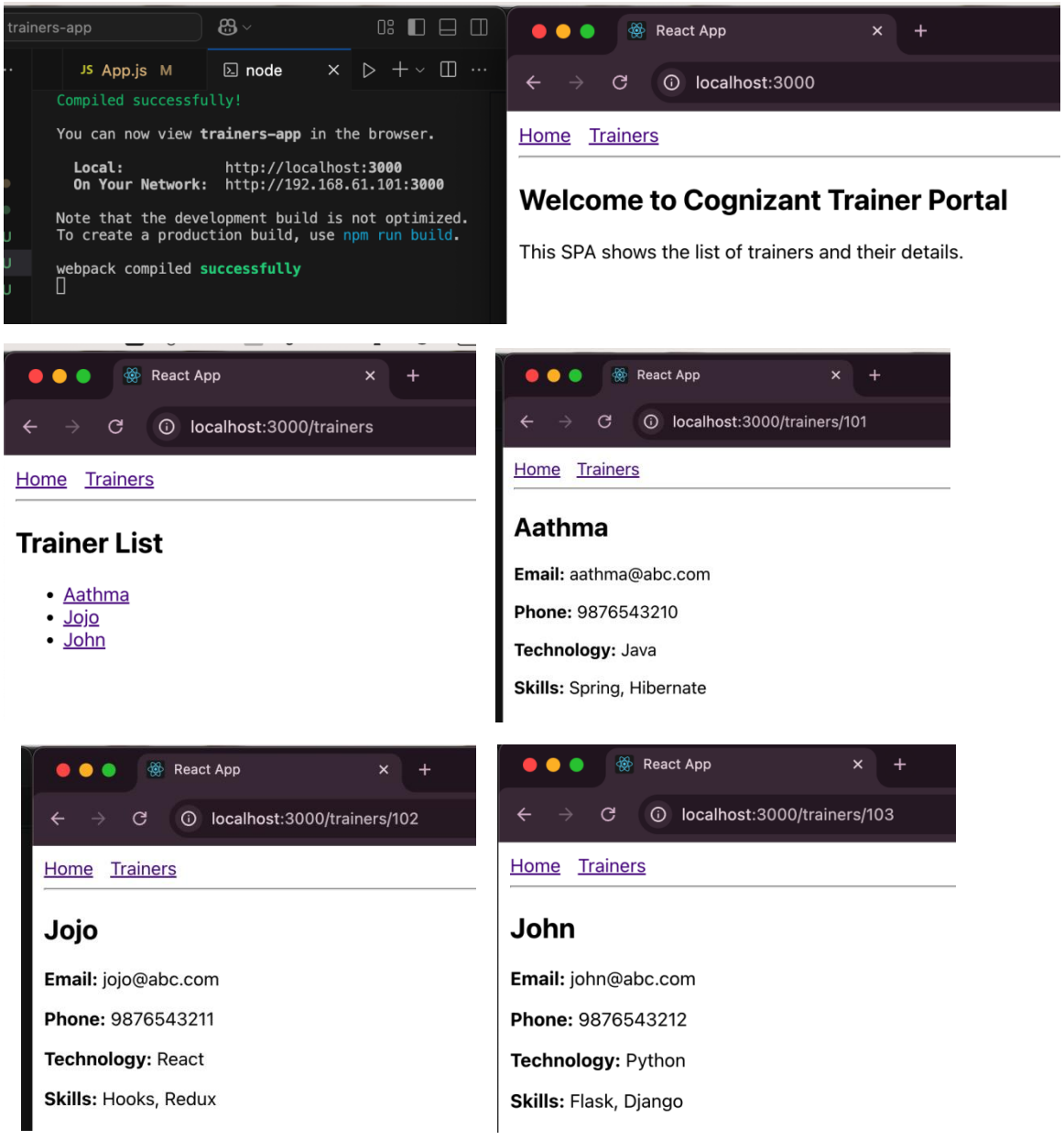
```
  const { id } = useParams();
  const trainer = trainers.find(t => t.TrainerId === parseInt(id));

  if (!trainer) return <p>Trainer not found!</p>;

  return (
    <div>
      <h2>{trainer.Name}</h2>
      <p><strong>Email:</strong> {trainer.Email}</p>
      <p><strong>Phone:</strong> {trainer.Phone}</p>
      <p><strong>Technology:</strong> {trainer.Technology}</p>
      <p><strong>Skills:</strong> {trainer.Skills.join(', ')}</p>
    </div>
  );
}

export default TrainerDetails;
```

App.js :

```
import React from 'react';
import { BrowserRouter, Routes, Route, Link } from 'react-router-dom';
import Home from './components/Home';
import TrainerList from './components/TrainerList';
import TrainerDetails from './components/TrainerDetails';

function App() {
  return (
    <BrowserRouter>
      <div style={{ padding: "10px" }}>
        <nav>
          <Link to="/" style={{ marginRight: "15px" }}>Home</Link>
          <Link to="/trainers">Trainers</Link>
        </nav>
        <hr />
```

```
        <Routes>
          <Route path="/" element={<Home />} />
          <Route path="/trainers" element={<TrainerList />} />
          <Route path="/trainers/:id" element={<TrainerDetails />} />
        </Routes>
      </div>
    </BrowserRouter>
  );
}

export default App;
```

OUTPUT :



File : 7. ReactJS-HOL.docx

Exercise : Building a ShoppingApp with Class Components and Props in React

components/OnlineShopping.js :

```
import React, { Component } from 'react';
import Cart from './Cart';

class OnlineShopping extends Component {
  render() {
    const items = [
      { itemname: "Laptop", price: 80000 },
      { itemname: "TV", price: 120000 },
      { itemname: "Washing Machine", price: 50000 },
      { itemname: "Mobile", price: 30000 },
      { itemname: "Fridge", price: 70000 }
    ];

    return (
      <div style={{ textAlign: 'center', fontFamily: 'Segoe UI, sans-serif', marginTop: '40px' }}>
        <h2 style={{
          color: 'green',
          fontWeight: '600',
          fontSize: '22px',
          marginBottom: '20px'
        }}>
          Items Ordered :
        </h2>

        <table style={{
          margin: '0 auto',
          borderCollapse: 'collapse',
          border: '1px solid #ccc'
        }}>
```

```
          <thead>
            <tr>
              <th style={{
                border: '1px solid #ccc',
                padding: '6px 20px',
                color: 'seagreen',
                fontWeight: '600',
                fontSize: '14px'
              }}>
                Name
              </th>
              <th style={{
                border: '1px solid #ccc',
                padding: '6px 20px',
                color: 'seagreen',
                fontWeight: '600',
                fontSize: '14px'
              }}>
                Price
              </th>
            </tr>
          </thead>
          <tbody>
            {items.map((item, index) => (
              <Cart key={index} itemname={item.itemname} price={item.price} />
            ))}
          </tbody>
        </table>
      </div>
    );
  }
}

export default OnlineShopping;
```

index.js :

```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(<App />);
```

App.js :

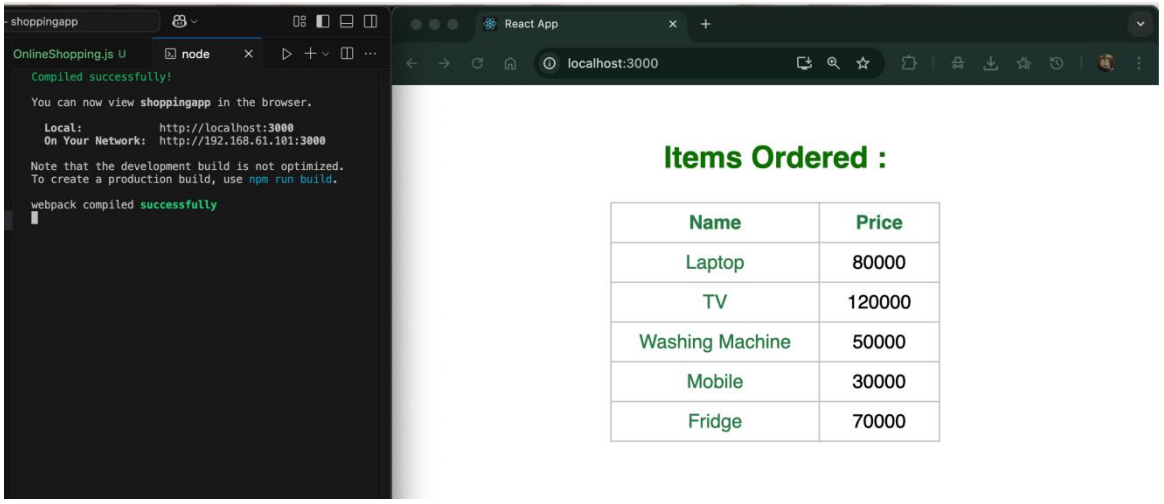
```
import React from 'react';
import OnlineShopping from './components/OnlineShopping';

function App() {
  return (
    <div>
      <OnlineShopping />
    </div>
  );
}

export default App;
```

components/Cart.js :

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

class Cart extends Component {
  render() {
    return (
      <tr>
        <td style={{
          border: '1px solid #ccc',
          padding: '6px 20px',
          color: 'seagreen',
          fontWeight: '500',
          fontSize: '14px',
```

```
          fontFamily: 'Segoe UI, sans-serif',
          textAlign: 'center'
        }}>
          {this.props.itemname}
        </td>
        <td style={{
          border: '1px solid #ccc',
          padding: '6px 20px',
          fontSize: '14px',
          fontFamily: 'Segoe UI, sans-serif',
          textAlign: 'center'
        }}>
          {this.props.price}
        </td>
      </tr>
    );
  }
}

export default Cart;
```

OUTPUT :



File : 8. ReactJS-HOL.docx

Exercise : Implementing State Management with Class Components in React

App.js :

```
import React from 'react';
import './App.css';

class CountPeople extends React.Component {
  constructor(props) {
    super(props);
    this.state = {
      entryCount: 0,
      exitCount: 0
    };
  }

  updateEntry = () => {
    this.setState(prevState => ({
      entryCount: prevState.entryCount + 1
    }));
  }

  updateExit = () => {
    this.setState(prevState => ({
      exitCount: prevState.exitCount + 1
    }));
  }

  render() {
    return (
      <div className="container">
        <div className="counter">
          <button className="login-btn" onClick={this.updateEntry}>Login</button>
          <span>{this.state.entryCount} People Entered!!!</span>
```

```
        </div>
        <div className="counter">
          <button className="exit-btn" onClick={this.updateExit}>Exit</button>
          <span>{this.state.exitCount} People Left!!!</span>
        </div>
      </div>
    );
  }
}
export default CountPeople;
```

App.css :

```
.container {
  display: flex;
  justify-content: space-around;
  align-items: center;
  margin-top: 100px;
  font-size: 18px;
  font-family: sans-serif;
}

.counter {
  display: flex;
  align-items: center;
  gap: 10px;
}

.login-btn,
.exit-btn {
  background-color: lightgreen;
  border: 1px solid green;
  padding: 5px 10px;
  font-weight: bold;
  cursor: pointer;
}
```

```
.login-btn:hover,
.exit-btn:hover {
  background-color: green;
  color: white;
}
```

OUTPUT :

Login 3 People Entered!!! Exit 2 People Left!!!