**9. ReactJS-HOL.docx**

**Exercise: Cricket App**

**ListofPlayers.js**

import React from 'react';

function ListofPlayers() {

const players = [

{ name: 'Rohit Sharma', score: 95 },

{ name: 'Virat Kohli', score: 88 },

{ name: 'Hardik Pandya', score: 40 },

{ name: 'KL Rahul', score: 70 },

{ name: 'Shubman Gill', score: 30 },

{ name: 'Rishabh Pant', score: 74 },

{ name: 'Surya Kumar', score: 60 },

{ name: 'Jasprit Bumrah', score: 55 },

{ name: 'Shami', score: 90 },

{ name: 'Ashwin', score: 80 },

{ name: 'Jadeja', score: 69 }

];

const below70 = players.filter(p => p.score < 70);

return (

<div>

<h2>All Players</h2>

{players.map((player, i) => (

<p key={i}>{player.name} - {player.score}</p>

))}

<h3>Players with score below 70</h3>

{below70.map((player, i) => (

<p key={i}>{player.name} - {player.score}</p>

))}

</div>

);

}

export default ListofPlayers;

**IndianPlayers.js**

import React from 'react';

function IndianPlayers() {

const oddTeam = ['Rohit', 'Kohli', 'Hardik', 'Rahul', 'Gill'];

const evenTeam = ['Pant', 'SKY', 'Bumrah', 'Shami', 'Ashwin'];

const [p1, p2, p3, p4, p5] = oddTeam;

const [e1, e2, e3, e4, e5] = evenTeam;

const T20players = ['Raina', 'Dhawan', 'Yuvraj'];

const ranjiTrophyPlayers = ['Pujara', 'Karun Nair'];

const allPlayers = [...T20players, ...ranjiTrophyPlayers];

return (

<div>

<h2>Odd Team Players</h2>

{[p1, p2, p3, p4, p5].map((p, i) => <p key={i}>{p}</p>)}

<h2>Even Team Players</h2>

{[e1, e2, e3, e4, e5].map((p, i) => <p key={i}>{p}</p>)}

<h2>All Players (Merged)</h2>

{allPlayers.map((p, i) => <p key={i}>{p}</p>)}

</div>

);

}

export default IndianPlayers;

**App.js**

import React from 'react';

import ListofPlayers from './ListofPlayers';

import IndianPlayers from './IndianPlayers';

function App() {

const flag = true; // Change this to false to show IndianPlayers

return (

<div className="App">

{flag ? <ListofPlayers /> : <IndianPlayers />}

</div>

);

}

export default App;

**10. ReactJS-HOL.docx**

**Exercise: Office Space Rental App**

**OfficeList.js**

import React from 'react';

function OfficeList() {

const offices = [

{

name: 'OceanView Towers',

rent: 55000,

address: 'Bandra, Mumbai',

image: 'https://via.placeholder.com/300x200?text=OceanView'

},

{

name: 'TechPark One',

rent: 75000,

address: 'Hinjewadi, Pune',

image: 'https://via.placeholder.com/300x200?text=TechPark'

},

{

name: 'CyberSpace HQ',

rent: 60000,

address: 'Koramangala, Bangalore',

image: 'https://via.placeholder.com/300x200?text=CyberSpace'

}

];

const rentStyle = (rent) => ({

color: rent < 60000 ? 'red' : 'green',

fontWeight: 'bold'

});

return (

<div>

<h1>Available Office Spaces for Rent</h1>

{offices.map((office, index) => (

<div key={index} style={{ border: '1px solid #ccc', padding: '10px', marginBottom: '20px' }}>

<img src={office.image} alt={office.name} width="300" height="200" />

<p><strong>Name:</strong> {office.name}</p>

<p><strong>Address:</strong> {office.address}</p>

<p style={rentStyle(office.rent)}><strong>Rent:</strong> ₹{office.rent}</p>

</div>

))}

</div>

);

}

export default OfficeList;

**App.js**

import React from 'react';

import OfficeList from './OfficeList';

function App() {

return (

<div className="App">

<OfficeList />

</div>

);

}

export default App;

**11. ReactJS-HOL.docx**

**Exercise: Event Examples App**

**Counter.js**

import React, { Component } from 'react';

class Counter extends Component {

constructor(props) {

super(props);

this.state = { count: 0 };

}

increment = () => {

this.setState({ count: this.state.count + 1 });

this.sayHello();

}

decrement = () => {

this.setState({ count: this.state.count - 1 });

}

sayHello = () => {

console.log("Hello! You clicked the button.");

}

render() {

return (

<div>

<h3>Counter: {this.state.count}</h3>

<button onClick={this.increment}>Increase</button>

<button onClick={this.decrement}>Decrease</button>

</div>

);

}

}

export default Counter;

**SayWelcome.js**

import React from 'react';

function SayWelcome() {

const showMessage = (msg) => {

alert(`Message: ${msg}`);

};

return (

<div>

<button onClick={() => showMessage("Welcome")}>Say Welcome</button>

</div>

);

}

export default SayWelcome;

**SyntheticExample.js**

import React from 'react';

function SyntheticExample() {

const handleClick = (e) => {

alert("I was clicked");

console.log("Synthetic event object:", e);

};

return (

<div>

<button onClick={handleClick}>OnPress</button>

</div>

);

}

export default SyntheticExample;

**CurrencyConvertor.js**

import React, { useState } from 'react';

function CurrencyConvertor() {

const [rupees, setRupees] = useState('');

const [euro, setEuro] = useState(null);

const handleSubmit = (e) => {

e.preventDefault();

const converted = (parseFloat(rupees) / 90).toFixed(2);

setEuro(converted);

};

return (

<div>

<h3>Currency Convertor</h3>

<form onSubmit={handleSubmit}>

<label>Rupees: </label>

<input

type="number"

value={rupees}

onChange={(e) => setRupees(e.target.value)}

/>

<button type="submit">Convert</button>

</form>

{euro && <p>Euro: €{euro}</p>}

</div>

);

}

export default CurrencyConvertor;

**App.js**

import React from 'react';

import Counter from './Counter';

import SayWelcome from './SayWelcome';

import SyntheticExample from './SyntheticExample';

import CurrencyConvertor from './CurrencyConvertor';

function App() {

return (

<div className="App">

<h2>React Events Lab</h2>

<Counter />

<SayWelcome />

<SyntheticExample />

<CurrencyConvertor />

</div>

);

}

export default App;

**12. ReactJS-HOL.docx**

**Exercise: Ticket Booking App**

**Guest.js**

import React from 'react';

function Guest() {

return (

<div>

<h2>Welcome, Guest!</h2>

<p>Explore available flights below:</p>

<ul>

<li>Flight 1: Delhi to Mumbai</li>

<li>Flight 2: Bangalore to Chennai</li>

<li>Flight 3: Kolkata to Hyderabad</li>

</ul>

<p><em>Login to book tickets.</em></p>

</div>

);

}

export default Guest;

**User.js**

import React from 'react';

function User() {

return (

<div>

<h2>Welcome Back!</h2>

<p>You are now logged in. Start booking your flights:</p>

<ul>

<li>Flight 1 - Book Now</li>

<li>Flight 2 - Book Now</li>

<li>Flight 3 - Book Now</li>

</ul>

</div>

);

}

export default User;

**App.js**

import React, { useState } from 'react';

import Guest from './Guest';

import User from './User';

function App() {

const [isLoggedIn, setIsLoggedIn] = useState(false);

const toggleLogin = () => setIsLoggedIn(!isLoggedIn);

return (

<div className="App">

<h1>Ticket Booking Portal</h1>

<button onClick={toggleLogin}>

{isLoggedIn ? 'Logout' : 'Login'}

</button>

<hr />

{isLoggedIn ? <User /> : <Guest />}

</div>

);

}

export default App;

**13. ReactJS-HOL.docx**

**Exercise: Blogger App**

**BookDetails.js**

import React from 'react';

function BookDetails() {

return (

<div>

<h3>Book: React for Beginners</h3>

<p>Author: Aru Dev</p>

<p>Pages: 250</p>

</div>

);

}

export default BookDetails;

**BlogDetails.js**

import React from 'react';

function BlogDetails() {

return (

<div>

<h3>Blog: Why React Hooks Are Awesome</h3>

<p>By: Neil Vlogs</p>

<p>Date: July 2025</p>

</div>

);

}

export default BlogDetails;

**CourseDetails.js**

import React from 'react';

function CourseDetails() {

return (

<div>

<h3>Course: Full Stack Web Dev</h3>

<p>Duration: 3 months</p>

<p>Platform: Cognizant Academy</p>

</div>

);

}

export default CourseDetails;

**App.js**

import React, { useState } from 'react';

import BookDetails from './BookDetails';

import BlogDetails from './BlogDetails';

import CourseDetails from './CourseDetails';

function App() {

const [active, setActive] = useState("book");

let componentToShow;

if (active === "book") {

componentToShow = <BookDetails />;

} else if (active === "blog") {

componentToShow = <BlogDetails />;

} else {

componentToShow = <CourseDetails />;

}

return (

<div className="App">

<h1>Blogger Portal</h1>

<div>

<button onClick={() => setActive("book")}>Book</button>

<button onClick={() => setActive("blog")}>Blog</button>

<button onClick={() => setActive("course")}>Course</button>

</div>

<hr />

{/\* Conditional rendering using if...else (variable) \*/}

{componentToShow}

{/\* Ternary operator \*/}

<div>

<h4>Status:</h4>

<p>{active === "book" ? "You are viewing a Book." : "You are NOT viewing a Book."}</p>

</div>

{/\* Short-circuit rendering \*/}

{active === "blog" && <p>Enjoy reading our latest blog posts!</p>}

</div>

);

}

export default App;

**14. ReactJS-HOL.docx**

**Exercise: React Context API**

**ThemeContext.js**

import { createContext } from 'react';

const ThemeContext = createContext('light');

export default ThemeContext;

**App.js**

import React, { useState } from 'react';

import EmployeesList from './EmployeesList';

import ThemeContext from './ThemeContext';

function App() {

const [theme, setTheme] = useState('light');

return (

<ThemeContext.Provider value={theme}>

<div className={`App ${theme}`}>

<h1>Employee Management</h1>

<button onClick={() => setTheme(prev => prev === 'light' ? 'dark' : 'light')}>

Toggle Theme

</button>

<EmployeesList />

</div>

</ThemeContext.Provider>

);

}

export default App;

**EmployeeList.js**

import React from 'react';

import EmployeeCard from './EmployeeCard';

function EmployeesList() {

const employees = [

{ name: 'Aru', designation: 'Developer' },

{ name: 'Neil', designation: 'Tester' },

{ name: 'Karl', designation: 'Manager' }

];

return (

<div>

{employees.map((emp, idx) => (

<EmployeeCard key={idx} employee={emp} />

))}

</div>

);

}

export default EmployeesList;

**EmployeeCard.js**

import React, { useContext } from 'react';

import ThemeContext from './ThemeContext';

function EmployeeCard({ employee }) {

const theme = useContext(ThemeContext);

return (

<div className={`card ${theme}`}>

<p>Name: {employee.name}</p>

<p>Designation: {employee.designation}</p>

<button className={`btn-${theme}`}>View</button>

</div>

);

}

export default EmployeeCard;

**15. ReactJS-HOL.docx**

**Exercise: Ticket Raising App**

**ComplaintRegister.js**

import React, { useState } from 'react';

function ComplaintRegister() {

const [name, setName] = useState('');

const [complaint, setComplaint] = useState('');

const handleSubmit = (e) => {

e.preventDefault();

const refNo = Math.floor(100000 + Math.random() \* 900000);

alert(`Complaint submitted!\nName: ${name}\nRef No: #${refNo}`);

setName('');

setComplaint('');

};

return (

<div>

<h2>Raise a Complaint</h2>

<form onSubmit={handleSubmit}>

<div>

<label>Employee Name: </label>

<input

type="text"

value={name}

onChange={(e) => setName(e.target.value)}

required

/>

</div>

<div>

<label>Complaint: </label>

<br />

<textarea

rows="4"

cols="50"

value={complaint}

onChange={(e) => setComplaint(e.target.value)}

required

></textarea>

</div>

<button type="submit">Submit Complaint</button>

</form>

</div>

);

}

export default ComplaintRegister;

**App.js**

import React from 'react';

import ComplaintRegister from './ComplaintRegister';

function App() {

return (

<div className="App">

<ComplaintRegister />

</div>

);

}

export default App;

**16. ReactJS-HOL.docx**

**Exercise: Mail Register App**

**Register.js**

import React, { useState } from 'react';

function Register() {

const [formData, setFormData] = useState({

name: '',

email: '',

password: ''

});

const [errors, setErrors] = useState({});

const validate = () => {

const newErrors = {};

if (formData.name.length < 5) {

newErrors.name = 'Name should be at least 5 characters long';

}

if (!formData.email.includes('@') || !formData.email.includes('.')) {

newErrors.email = 'Email must contain "@" and "."';

}

if (formData.password.length < 8) {

newErrors.password = 'Password must be at least 8 characters long';

}

return newErrors;

};

const handleSubmit = (e) => {

e.preventDefault();

const validationErrors = validate();

if (Object.keys(validationErrors).length === 0) {

alert('Registration successful!');

setFormData({ name: '', email: '', password: '' });

setErrors({});

} else {

setErrors(validationErrors);

}

};

const handleChange = (e) => {

setFormData({ ...formData, [e.target.name]: e.target.value });

};

return (

<div>

<h2>Mail Registration Form</h2>

<form onSubmit={handleSubmit}>

<div>

<label>Name: </label>

<input

type="text"

name="name"

value={formData.name}

onChange={handleChange}

/>

{errors.name && <p style={{ color: 'red' }}>{errors.name}</p>}

</div>

<div>

<label>Email: </label>

<input

type="text"

name="email"

value={formData.email}

onChange={handleChange}

/>

{errors.email && <p style={{ color: 'red' }}>{errors.email}</p>}

</div>

<div>

<label>Password: </label>

<input

type="password"

name="password"

value={formData.password}

onChange={handleChange}

/>

{errors.password && <p style={{ color: 'red' }}>{errors.password}</p>}

</div>

<button type="submit">Register</button>

</form>

</div>

);

}

export default Register;

**App.js**

import React from 'react';

import Register from './Register';

function App() {

return (

<div className="App">

<Register />

</div>

);

}

export default App;

**17. ReactJS-HOL.docx**

**Exercise: Fetch User App**

**Getuser.js**

import React, { Component } from 'react';

class Getuser extends Component {

constructor() {

super();

this.state = {

user: null

};

}

async componentDidMount() {

try {

const response = await fetch('https://api.randomuser.me/');

const data = await response.json();

this.setState({ user: data.results[0] });

} catch (error) {

console.error('Error fetching user:', error);

}

}

render() {

const { user } = this.state;

return (

<div>

<h2>Random User Generator</h2>

{user ? (

<div>

<p><strong>Title:</strong> {user.name.title}</p>

<p><strong>Name:</strong> {user.name.first}</p>

<img src={user.picture.large} alt="User" />

</div>

) : (

<p>Loading user data...</p>

)}

</div>

);

}

}

export default Getuser;

**App.js**

import React from 'react';

import Getuser from './Getuser';

function App() {

return (

<div className="App">

<Getuser />

</div>

);

}

export default App;

**18. ReactJS-HOL.docx**

**Exercise: Cohort Details App**

**setupTests.js**

import Enzyme from 'enzyme';

import Adapter from 'enzyme-adapter-react-16';

Enzyme.configure({ adapter: new Adapter() });

**CohortDetails.js**

import React from 'react';

function CohortDetails({ cohort }) {

return (

<div>

<h3>{cohort.code}</h3>

<p>Status: {cohort.status}</p>

<p>Trainer: {cohort.trainer}</p>

</div>

);

}

export default CohortDetails;

**Cohort.js**

export const CohortData = [

{ code: 'FS23', status: 'Ongoing', trainer: 'Aru' },

{ code: 'FS22', status: 'Completed', trainer: 'Neil' }

];

**CohortDetails.test.js**

import React from 'react';

import { shallow, mount } from 'enzyme';

import CohortDetails from './CohortDetails';

import { CohortData } from './Cohort';

describe('Cohort Details Component', () => {

test('should create the component', () => {

const wrapper = shallow(<CohortDetails cohort={CohortData[0]} />);

expect(wrapper.exists()).toBe(true);

});

test('should initialize the props', () => {

const wrapper = mount(<CohortDetails cohort={CohortData[0]} />);

expect(wrapper.props().cohort).toEqual(CohortData[0]);

});

test('should display cohort code in h3', () => {

const wrapper = mount(<CohortDetails cohort={CohortData[1]} />);

expect(wrapper.find('h3').text()).toBe(CohortData[1].code);

});

test('should always render same html', () => {

const wrapper = shallow(<CohortDetails cohort={CohortData[0]} />);

expect(wrapper).toMatchSnapshot();

});

});

**19. ReactJS-HOL.docx**

**Exercise: Git Client App**

**GitClient.js**

import axios from 'axios';

class GitClient {

static async getRepositories(username) {

const response = await axios.get(`https://api.github.com/users/${username}/repos`);

return response.data.map(repo => repo.name);

}

}

export default GitClient;

**App.js**

import React, { useState } from 'react';

import GitClient from './GitClient';

function App() {

const [repos, setRepos] = useState([]);

const [username, setUsername] = useState('');

const fetchRepos = async () => {

const data = await GitClient.getRepositories(username);

setRepos(data);

};

return (

<div className="App">

<h2>GitHub Repo Fetcher</h2>

<input

type="text"

placeholder="GitHub username"

value={username}

onChange={(e) => setUsername(e.target.value)}

/>

<button onClick={fetchRepos}>Get Repos</button>

<ul>

{repos.map((repo, idx) => (

<li key={idx}>{repo}</li>

))}

</ul>

</div>

);

}

export default App;

**GitClient.test.js**

import axios from 'axios';

import GitClient from './GitClient';

jest.mock('axios');

describe('Git Client Tests', () => {

test('should return repository names for techiesyed', async () => {

const mockedData = [

{ name: 'project-one' },

{ name: 'project-two' },

{ name: 'project-three' }

];

axios.get.mockResolvedValue({ data: mockedData });

const repos = await GitClient.getRepositories('techiesyed');

expect(repos).toEqual(['project-one', 'project-two', 'project-three']);

});

});