

I N D E X

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1		Write ReactJS code to use all the states in the created Application.		
2		Write ReactJS code for client-side form validation		
3		Write ReactJS code for Application Applying Form Components		
4		Write ReactJS code to create Registration Form.		
5		Write ReactJS code to create simple login Form		<i>Done</i>
6		Write ReactJS code to create single Page Application.		
7		Write ReactJS /NodeJS code to Applying Routing		
8		Write ReactJS/NodeJS code to demonstrate the use of POST Method.		

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R. C. Patel Educational Trust's

I. M. R. D.

Shirpur, Dist. Dhule

Name Pooja Laxman Patil

Program Name 5 states

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Batch B2 Roll No. 42

Assignment No. 1

Lecturer's Remarks and Signature

1. Write React Js code to use all the states in the create application.

- States management
- App.js

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

```
function App () {
  const [count, setCount] = useState(0);
  const handleClick = () => {
    setCount(count + 1);
  };
  return (
    <div>
      <button onClick = {handleClick}>
        Click me!
      </button>
      <p> You clicked {count} times.
      </p>
    </div>
  );
}
export default App;
```

Door



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Program Name Validation

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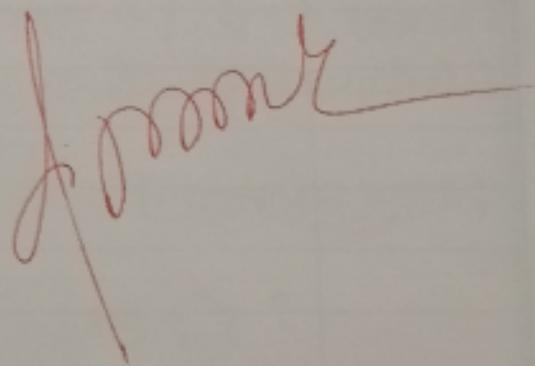
Class T4BCA Page No. _____

Batch B2 Roll No. 42

Assignment No. 2

Lecturer's Remarks and Signature

2. Write ReactJs code for client-side form Validation.



- Client side form validation

- App.js

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

function App() {
  const [name, setName] = useState('');
  const [email, setEmail] = useState('');
  const [errors, setErrors] = useState({});

  const validateForm = () => {
    const formError = {};
    if (!name) formError.name = 'Name is required';
    if (!email) formError.email = 'Email is required';
    if (!/^\S+@\S+\.\S+$/.test(email)) formError.email = 'Email is invalid';
    setErrors(formError);
    return Object.keys(formError) === 0;
  };

  const handleSubmit = (e) => {
    e.preventDefault();
    if (validateForm()) {
      alert('Form submitted with : \nName : $ {name} \nEmail : $ {email}');
    }
  };
}

export default App;
```

Name Pooja

Program Name

Performed on

3.

```

return (
  <div>
    <center>
      <h1> Student form </h1>
      <div>
        <label> Name </label>
        <input type="text" value={name} 
          onChange={(e) => setName(e.target.value)} 
          placeholder="Enter name" />
        {errors.name} <p style={{color: 'red'}}> {errors.name} </p>
      </div>
      <div>
        <label> Email </label>
        <input type="email" value={email} 
          onChange={(e) => setEmail(e.target.value)} 
          placeholder="Enter Email" />
        {errors.email} <p style={{color: 'red'}}> {errors.email} </p>
      </div>
      <div>
        <button type='Submit'> Submit
      </button>
    </div>
  </form>
  </center>
</div>
);
};

export default App;
  
```

Done



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Program Name Components

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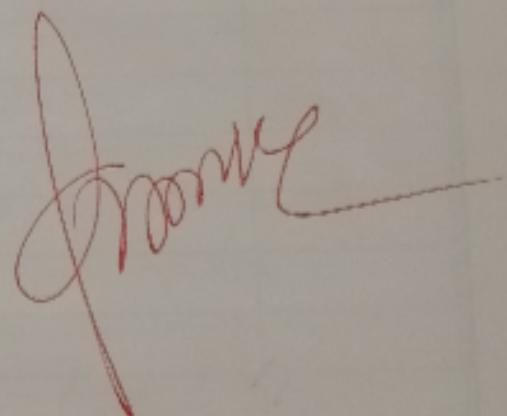
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Batch B2 Roll No. 42

Assignment No. 3

Lecturer's Remarks and Signature

3. Write ReactJs code for Applying form components.



- components

- 1] Header.js

```
import React from 'react';
const Header = () => {
  return (
    <header className="header">
      <h1> Simple Web Page Layout </h1>
    </header>
  );
}
export default Header;
```

- 2] Sider.js

```
import React from 'react';
const Sider = () => {
  return (
    <div className="Sider">
      <h3> SiderBar </h3>
      <ul>
        links here
      </ul>
    </div>
  );
}
export default Sider;
```

3] MainContent.js

```
import React from 'react';
const MainContent = () => {
  return (
    <div className="main-content">
      <h2> Main Content </h2>
      <p> This is the main content area.  
You can place any content you like  
here, such as articles, images, or  
videos </p>
    </div>
  );
};

export default MainContent;
```

4] Footer.js

```
import React from 'react';
const Footer = () => {
  return (
    <footer className="Footer">
      <h1> MaratheCreation@company </h1>
    </Footer>
  );
};

export default Footer;
```

```
- .header {  
background-color : #4CAF50;  
color : White;  
text-align : center;  
padding : 15px;  
font-size : 20px;  
height : 150px;  
}
```

```
• Content-Container {  
display : flex;  
flex : 1;  
overflow : hidden;  
}
```

```
• sider {  
background-color : #F4F4F4;  
width : 250px;  
padding : 15px;  
border-right : 1px solid #ddd;  
box-shadow : inset -1px 0 0 #ddd;  
overflow-y : auto;  
}
```

```
• main-content {  
flex : 1;  
padding : 20px;  
background-color : #fff;  
overflow-y : auto;  
}
```

```
• footer {  
background-color : #4CAF50;
```



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Name Pooja

Program Name

Performed on

```
color: white;  
text-align: center;  
padding: 10px;  
font-size: 16px;  
}
```

6) App.js

4.

```
import React from 'react';  
import './App.css';  
import Header from './Header';  
import Sider from './Sider';  
import MainContent from './MainContent';  
import Footer from './Footer';  
  
const App = () => {  
  return (  
    <div className="container">  
      <Header/>  
      <div className="content-container">  
        <Sider/>  
        <MainContent/>  
      </div>  
      <Footer/>  
    </div>  
  );  
};  
  
export default App;
```



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Name Pooja Laxman Patil

Program Name Registration Form

Performed on _____

Submitted on _____

Class T4BCA Page No. _____

Batch B2 Roll No. 42

Assignment No. 4

Lecturer's Remarks and Signature

4. Write ReactTs code to create student Registration Form.

Apoorv

- Registration form
- App.js

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

```
function App {
  const [Name, setName] = useState('');
  const [D1, setD1] = useState('');
  const [m, setgen] = useState('');
  const [Email, setEmail] = useState('');
  const [pass, setpass] = useState('');
  const handleSubmit = (e) => {
    alert('Form submitted with:');
    console.log(`Name : ${Name}`);
    console.log(`Birth Date : ${D1}`);
    console.log(`Gender : ${m}`);
    console.log(`Email : ${Email}`);
  };
  return (

```

```
<h1> Student Form </h1>
<form onSubmit={handleSubmit}>
<div>
  <label> Name </label>
  <input type="text" value={Name}
  onChange={(e) => setName(e.target.value)} placeholder="Enter name"/>
</div>
```

```
<div>
<label> Date of Birth </label>
<input type="date" value = {{D1}}>
onchange = {{e}} => Set D1 (e.target.value) 3 placeholder = "Enter Birth
Date" />
</div>
<div>
<label> Gender </label>
<input type="radio" name = "m">
value = "Male" onchange = {{e}} =>
Setgen (e.target.value) 3 />
Male.
<input type = "radio" name = "m">
value = "Female" onchange = {{e}} =>
Setgen (e.target.value) 3 />
Female
</div>
<div>
<label> Email </label>
<input type = "email" value = {{Email}}>
onchange = {{e}} => SetEmail (e.target.value) 3 placeholder = "Enter Email"
</div>
<div>
<label> Password </label>
<input type = "password" value = {{pass}}>
onchange = {{e}} =>
Setpass (e.target.value) 3 placeholder =
"Enter Password" />
```

```
<|div>
<div>
<button type = "submit">
    Submit
<|button>
<|div>
<|form>
<|div>
);
};

export default App;
```

Done



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Name Patil Pooja Laxman

Program Name Login Form

Performed on _____ Submitted on _____

Class TYBCA Page No. _____

Batch B2 Roll No. 42

Assignment No. 5

Lecturer's Remarks and Signature

5. Write ReactJS code to create simple Login Form.

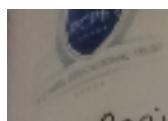
J. Pooja

- login form (App.js)

```
import React from 'react';
import {useState} from 'react';
function App () {
  const [uname, setuname] = useState(' ');
  const [pass, setpass] = useState(' ');
  const handleSubmit = (e) => {
    e.preventDefault();
    if (uname === "RCP" && pass === "IMRD") {
      alert("Login Successful");
    } else {
      alert("Login not success");
    }
  }
  return (
    <div>
      <center>
        <h1>Login Form</h1>
        <form onSubmit={handleSubmit}>
          <div>
            <label>Name </label>
            <input type="text" value={uname}
              onChange={e=> setuname(e.target.value)}>
              placeholder="Enter your Name"/>
          </div>
        </form>
      </center>
    </div>
  );
}
```

```
<div>
  <label> Password </label>
  <input type="password" value={pass} />
  onchange = {e} => setEmail (e.target.value)
  placeholder = "Enter your password" />
</div>
<div>
  <button type="submit" > Submit
</button>
</div>
<form>
  <center>
    <div>
  );
}
export default App;
```

By
Rajiv



P.C.E.T.

Shirpur, Dist. Dhule

Name Pooja Laxman Patil

Program Name Single Page Application

Performed on _____

Submitted on _____

Class TYBCA Page No. _____

Batch B2 Roll No. 42

Assignment No. 6

Lecturer's Remarks and Signature

6. Write ReactJS Application. create a Single Page

Dhoom



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Name Pooja Laxman Patil
Program Name Routing
Performed on _____ Submitted on _____

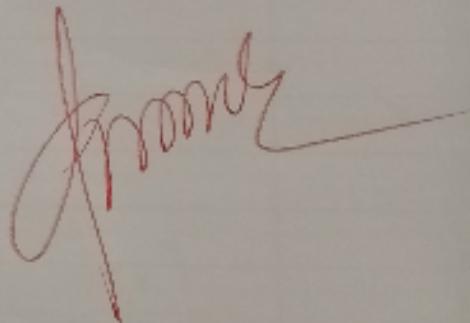
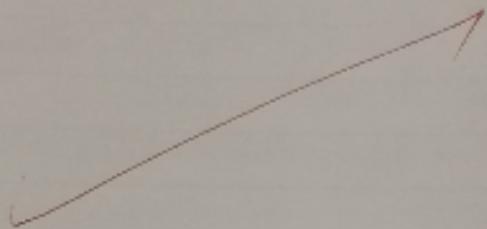
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Batch B2 Roll No. 42

Assignment No. 7

Lecturer's Remarks and Signature

7. Write ReactJs/ NodeJs code to Applying Routing.



- Single Page Application
- Routing

- About.js (in src folder)

```
import React from 'react';
function About () {
  return (
    <div>
      <h1> About Page </h1>
      <p> This is the 'about' page of our
        React application. </p>
    </div>
  )
}
export default About;
```

- Contact.js (in src folder)

```
import React from 'react';
function Contact () {
  return (
    <div>
      <h1> Contact us page </h1>
      <p> This is the contact us page
        of our React application. </p>
    </div>
  )
}
```

```
</div>
)
}
export default Contact;
```

- Home.js (in src folder)

```
import React from 'react';
function Home() {
  return (
    <div>
      <h1> Home Page </h1>
      <p> Welcome to our React Application </p>
    </div>
  )
}
export default Home;
```

- App.js

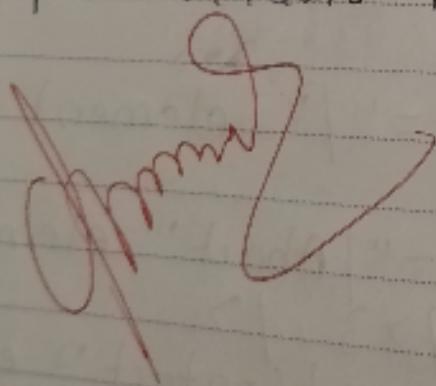
```
import React from 'react';
import { BrowserRouter as Router,
         Routes, Route, Link } from
         'react-router-dom';
import Home from './Home';
import About from './About';
```

```
import Contact from './Contact';
function App () {
  return (
    <Router>
      <div>
        <nav style = {navStyle} >
          <Link to = "/ " style = {linkStyle} >
            Home </Link>
          <Link to = "/About" style = {linkStyle} >
            About </Link>
          <Link to = "/Contact" style = {linkStyle} >
            Contact </Link>
        </nav>
        <Routes>
          <Route path = "/" element = {<Home />} />
          <Route path = "/About" element = {<About />} />
          <Route path = "/Contact" element = {<Contact />} />
        </Routes>
      </div>
    </Router>
  );
}
```

```
const navStyle = {  
    display: 'flex',  
    justifyContent: 'space-around',  
    padding: '1em',  
    background: 'Blue',  
    color: 'orange',  
};
```

```
const linkStyle = {  
    color: 'white',  
    textDecoration: 'none',  
    fontWeight: 'bold',  
};
```

```
export default App;
```





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Name Pooja Laxman Patil
Program Name Post Method
Performed on _____ Submitted on _____

Class IYBCA Page No. _____

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Assignment No. 8

Lecturer's Remarks and Signature

8. Write ReactTS | NodeTS code to demonstrate the use of POST Method.

Dinner



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Batch B 2 Roll No. 42

Assignment No. 9

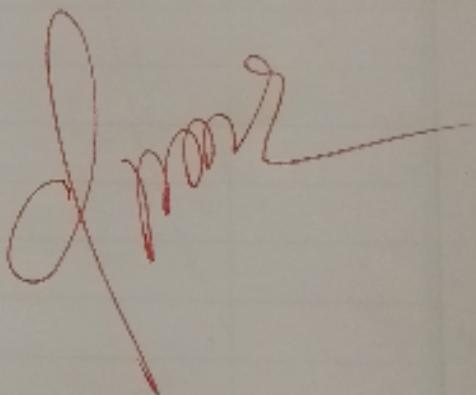
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Program Name _____

Performed on _____ Submitted on _____

Lecturer's Remarks and Signature

9. Write ReactJs/NodeJs code to demonstrate the use of GET Method.





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Program Name REST API

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Assignment No. 10

Lecturer's Remarks and Signature

10. To demonstrate REST API in Node TS.

Dome



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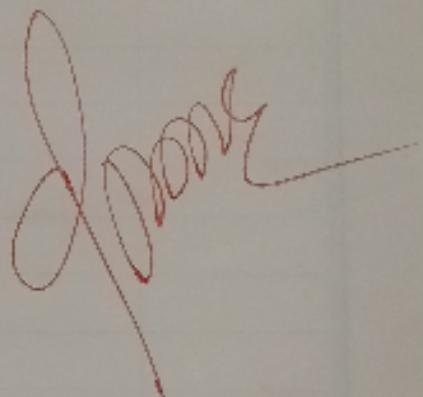
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Class TYBCA Page No. -----
Batch B2 Roll No. 42
Assignment No. 11

Lecturer's Remarks and Signature

Name Pooja Laxman Patil
Program Name Stored data in database
Performed on _____ Submitted on _____

11. Create NodeJS Application for to stored Student information in database.



- Insert Student Information in Database

- In Mongo Compose
- Create database : student-data
- Create collection : registration

- Demo.js

```
const { MongoClient } = require('mongodb');

const url = 'mongodb://localhost:27017';
const dbname = 'student-data';
const collName = 'registration';

async function main() {
  const client = new MongoClient(url);
  try {
    await client.connect();
    const db = client.db(dbname);
    const col = db.collection(collName);

    const newuser = { name: 'ram',
                     age: 34,
                     saddr: 'shirpur',
                     3 };

    const ir = await col.insertOne(newuser);
    console.log(`Inserted document with,
ID ${ir.insertedID}`);
  }
}
```

3

catch (err) {

 console.error ('Error', err);

3

Finally {

 await client.close ();

3

3

main ().catch (console.error);



R. C. Patel Educational Trust's

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Name Pooja Laxman Patil

Program Name Login Credentials

Performed on _____ Submitted on _____

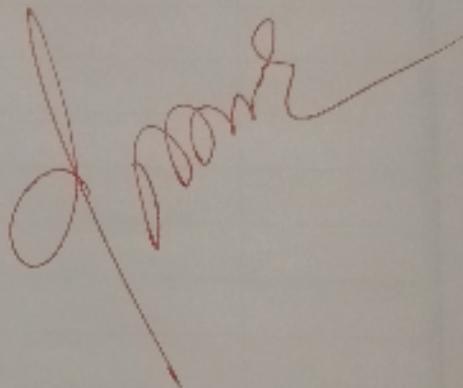
Class TYBCA Page No. _____

Batch B 2 Roll No. 42

Assignment No. 12

Lecturer's Remarks and Signature

12. Create Node JS Application for login credentials.



Login Credentials

- Mongo Compass

- create database : student-data
- create Collection : registration
- In Collection create Document :
 $\{ \text{"unam": "ram"}, \text{"pass": "imrd"} \}$

- login.js

```
const {error} = require ('console');
const {MongoClient} = require ('mongodb');

const url = 'mongodb://localhost:2701';
const dbname = 'student-data';
const collname = 'registration';

async function login (un, ps) {

    const client = new MongoClient (url);
    try {
        await client.connect ();
        const db = client.db (dbname);
        const cl = db.collection (collname);
        const user = await cl.findOne ({  
        uname: un });
    }
}
```

```
if (!user) {
    console.log('user not found');
    return;
}
if (user.pass === ps) {
    console.log('login successful');
}
else {
    console.log('login unsuccessful');
}
catch (error) {
    console.error('Error while logging in:', error);
}
login('ram', 'imrd');
```



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Class T4B (A) Page No. _____

Batch B2 Roll No. 42

Assignment No. 13

Name Pooja Laxman Patil

Program Name display information

Performed on _____ Submitted on _____

Lecturer's Remarks and Signature

13. Create Node JS Application to display Student information.

• Display Student information

- Create database : student-data
- Create collection : registration
- Insert document : { "name" : "ram",
"uname" : "ram1",
"addr" : "Shirpur",
"pass" : "123" }

• Display.js

```
const {error} = require('console');
const MongoClient = require('mongodb');

const url = 'mongodb://localhost:27017';
const dbname = 'student-data';
const collName = 'registration';
```

```
async function display(un) {
  const client = new MongoClient(url);
  try {
    await client.connect();
    const db = client.db(dbname);
    const cl = db.collection(collName);

    const user = await cl.findOne({ uname: un });
  }
}
```

```
if (!user) {
    console.log('User not found');
    return;
}
else {
    console.log('Student Information');
    console.log('Student name:', user.name);
    console.log('Student username:', user.uname);
    console.log('Student address:', user.sadd);
}
catch (error) {
    console.error("Error while logging in", error);
}
display('ram');
```



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Name Pooja Laxman Patil

Program Name update, display and delete

Performed on

Submitted on _____

Class T4B1A Page No. _____

Batch B2 Roll No. 42

Assignment No. 14

Lecturer's Remarks and Signature

14.

Create Node JS Application to update, display and delete student information.