Department of Computer Science and Engineering
Data Science

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Class / Branch: CSE(DS)   Date Of Performance: 17/09/24

Subject: WCN Lab   Date Of Submission: 10/10/24

Name of Instructor: Prof. Ashwini Rahude

Experiment No. 5

Aim:- Construct front end applications using React and back end using Node.js/express.

Backend (Node Js) Code :

```
var express =
require("express"); var
mysql = require("mysql");
var app = express();
var con =
 mysql.createConnection({ host:
 "localhost",
 user:
 "root",
 password:
 "root",
 database: "students",
});
```

```javascript
app.get("/", async function (req,
 res) { const data = await
 getAll();
 console.log(data);
 res.writeHead(200
 , {
   "Content-Type": "text/html",
   "Access-Control-Allow-Origin": "*",
 });
 const putput =
 JSON.stringify(data);
 res.end(putput);});


app.get("/insert", async function (req, res) {
 let TestMessage = { body: "data inserted
 sucessfully" }; const jsonContent =
 JSON.stringify(TestMessage); const data =
 await insertData(req.query.email);
 console.log(data);

 res.writeHead(200, {
   "Content-Type":
   "text/html",
   "Access-Control-Allow-Origin": "*",
 });
 if (data.affectedRows >
  0) { const datas = await
  getAll();
  const putput =
  JSON.stringify(datas);
  res.end(putput);
 } else {
```

```javascript
    const datas = await getAll();
    const putput = JSON.stringify(datas);
    res.end(putput);
  }
});

var server = app.listen(8000, function () {
 var host = server.address().address;
 var port = server.address().port;
 console.log("Example app listening at http://%s:%s", host, port);
});

const getAll = () => {
 return new Promise((resolve, reject) => {
   con.query("select * from std_details", (err, result) => {
   if (err) {
```

```javascript
      reject(err);
    } else {
      resolve(result);

    }
  });
  });
};


const insertData = (email) => {
  return new Promise((resolve, reject) => {
    var sql = "INSERT INTO std_details (email)
    VALUES ?"; var values = [[email]];
    con.query(sql, [values], function (err, result) {
    if (err) {
      reject(err);
    } else {
      resolve(result);

    }
  });
  });
};
```

Front end (React) Code :

```javascript
import
"./App.css";
import
"./style.css";
import { useState, useEffect } from "react";
import "bootstrap/dist/css/bootstrap.min.css";


function App() {

  const [messages, setMessages] =
  useState([""]); const [email, setEmail] =
  useState("");
```

```jsx
useEffect(() => {

  fetch("http://localhost:8000/")
    .then((res) => res.json())
    .then((data) => { console.log(data); setMessages(data);
    });
}, [email]);

const handleChange = (event) =>
  { setEmail(event.target.value);
};

const handeSubmit = (event) =>
  { event.preventDefault();
  fetch("http://localhost:8000/insert?email=" + email)

    .then((res) => res.json())
    .then((data) => {
      setMessages(data);
    });
};

return (

  <div className="App">
    <section id="footer">
      <section id="banner">
        <div className="container-fluid" id="banner-container">
          <div className="row" id="banner-row">
            <div className="col-md-4" id="footer-col2"></div>
            <div className="col-md-4" id="footer-col2">
              <h3>Store your email address</h3>
              <form onSubmit={handeSubmit} method="GET">
                <div className="mb-3">
                  <input
                    type="email"
```

```
  placeholder="Enter Your
  Email" className="form-
  control"
  id="exampleInputEmail1"

  aria-describedby="emailHelp"
  onChange={handleChange}
/>
<div id="emailHelp" className="form-text">
```

```jsx
                We'll never share your email with anyone else.
            </div>
          </div>
          <button type="submit" className="btn btn-
            primary"> Submit
          </button>
        </form>
        <table className="table">
          <thead>
            <tr>
              <th scope="col">#</th>
              <th scope="col">Email</th>
            </tr>
          </thead>
          <tbody>
            {messages.map((message) => (
              <tr>
                <th scope="row">{message.id}</th>
                <td>{message.email}</td>
              </tr>
            ))}
          </tbody>
        </table>
      </div>
    </div>
  </div>
 </section>
 </section>
</div>
);
}

export default App;
```

CSS File:

```css
*{ margin: 0; padding: 0; font-family:
        'Roboto Condensed', sans-serif;
}

/* navbar */

.navbar-nav{ margin-right: 0
        !important; padding-
        right: 100px;
}

.navbar{ background-color:
        #0a193d; color: white
        !important;

}

.nav-item a{ color: white

        !important;
}

.nav-item{ padding-left:

        2px;
}
.navbar-brand{ color: white
        !important; padding-left:
        100px;
}

#navbar button{ color: white

        !important;
}

/* banner */
```

```
#banner-container{ background-color:
    #0a193d; color: white

    !important; padding-top:
    80px; padding-bottom:
    80px;
```

```css
}

#banner-row img{ max-
        width:        70%;
        height:        auto;
        display:      block;
        padding-left:
        30px;
}

#banner-row h3, p{ padding-
        left:   20px;  padding-
        top:  20px;  text-align:
        center;
}

#banner-row a{ background-color: white
        !important; color: black
        !important; border: none;
  margin-left: 20px; margin-
                top: 20px;

}
#banner-col{ padding-left:
        20px;
}
/* service */
#service{ padding-top:
        80px; padding-
        bottom: 80px;
}

#service h1{ padding-
        bottom: 70px;
}
```

```css
/* about */


#about{  padding-top:
      80px; padding-
      bottom: 80px;

}
```

```css
#about h1{ padding-
      bottom: 70px;
}


#about-col ul{ padding-
      top: 50px; padding-
      left: 50px;

}


#about-col ul li{ padding-
      top: 15px;


}
/* product */


#product{ padding-top:
      80px; padding-
      bottom: 80px;

}


#product h1{ padding-
      bottom: 70px;
}


#product-col2 ul{ padding-
      top: 90px;

}


#product-col2 ul li{ padding-
      top: 15px;
}


/* social */
```

```
#social{ padding-top:
    80px; padding-
    bottom: 80px;

}
```

```css
#social h1{ padding-
        bottom: 70px;
}

.social-col a:hover img{
transform: translateY(-10px);

}

#social-row{ flex-
        direction: row;

}

/* footer */

.mb-3{ padding-top:

10px;
}


/* media */
@media only screen and (max-width: 987px){
        .navbar-brand{ padding-
                left: 0px;
        }
}

@media only screen and (max-width:
        768px){ #banner-row img{
        padding-top:
                20px;
        }
```

```css
.social-col{
        width:
        33%;

}


}
```
Output:

```javascript
});

app.get("/insert", async function (req, res) {
  let TestMessage = { body: "data inserted sucessfully" };
  const jsonContent = JSON.stringify(TestMessage);
  const data = await insertData(req.query.email);
  console.log(data);

  res.writeHead(200, {
    "Content-Type": "text/html",
    "Access-Control-Allow-Origin": "*",
  });
  if (data.affectedRows > 0) {
    const datas = await getAll();
    const putput = JSON.stringify(datas);
    res.end(putput);
  } else {
    const datas = await getAll();
    const putput = JSON.stringify(datas);
    res.end(putput);
  }
});

var server = app.listen(8000, function () {
  var host = server.address().address;
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const getAll = () => {
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Front end (React) Code :

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function App() {

  const [messages, setMessages] =
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```

```
useEffect(() => {

  fetch("http://localhost:8000/")
    .then((res) => res.json())
```

```jsx
      .then((data) => {
       console.log(data);
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      });
 }, [email]);

 const handleChange = (event) =>
  { setEmail(event.target.value);
 };

 const handeSubmit = (event) =>
  { event.preventDefault();
  fetch("http://localhost:8000/insert?email=" + email)
   .then((res) => res.json())
   .then((data) => {
    setMessages(data);
   });
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           type="email"
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```

```
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        }
```
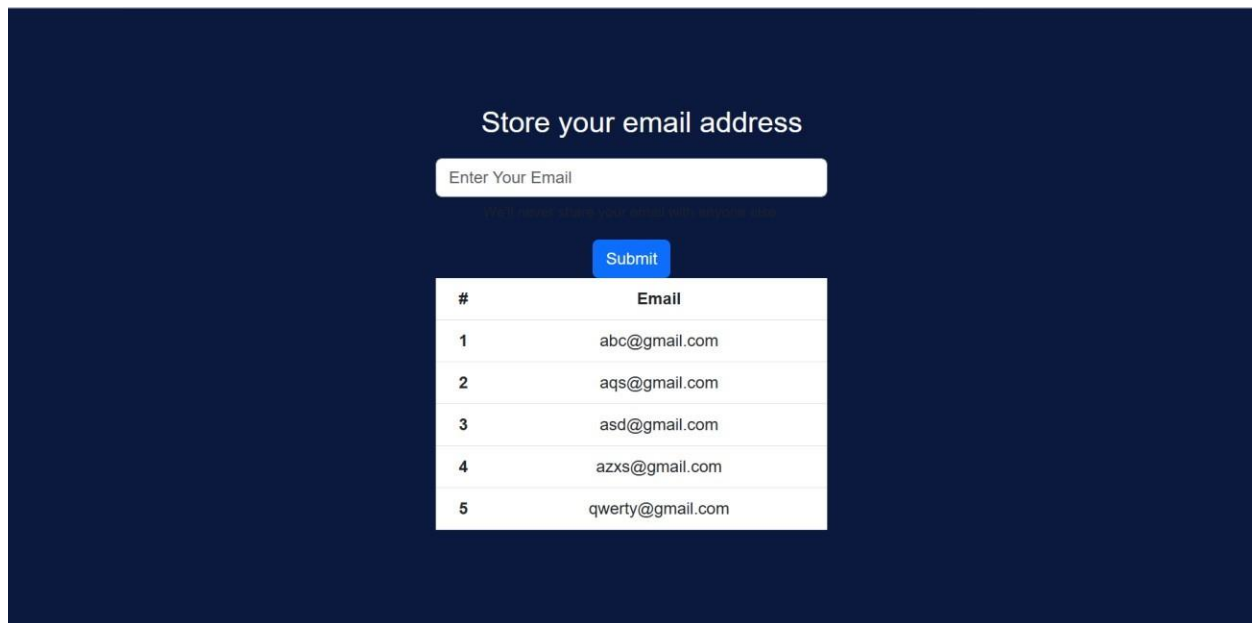
```
.social-col{
        width:
        33%;

}


}
```

Output:

Conclusion:We have successfully Construct front end applications using React and back end using