Academic Year: 2022-23   **Semester: V**
Class / Branch: TE DS
Subject: WC and CN

Experiment No. 05

1. **Aim**: Construct front end applications using React and back end using Node js

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",
});

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);
```

```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;
  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) {
```

```
      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 :
```
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("");

  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;
}

/* 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;
        }

.social-col{ width:
        33%;
}


}
```

Output:

Store your email address

Enter Your Email

We'll never share your email with anyone else.

Submit

#	Email
1	abc@gmail.com
2	aqs@gmail.com
3	asd@gmail.com
4	azxs@gmail.com
5	qwerty@gmail.com