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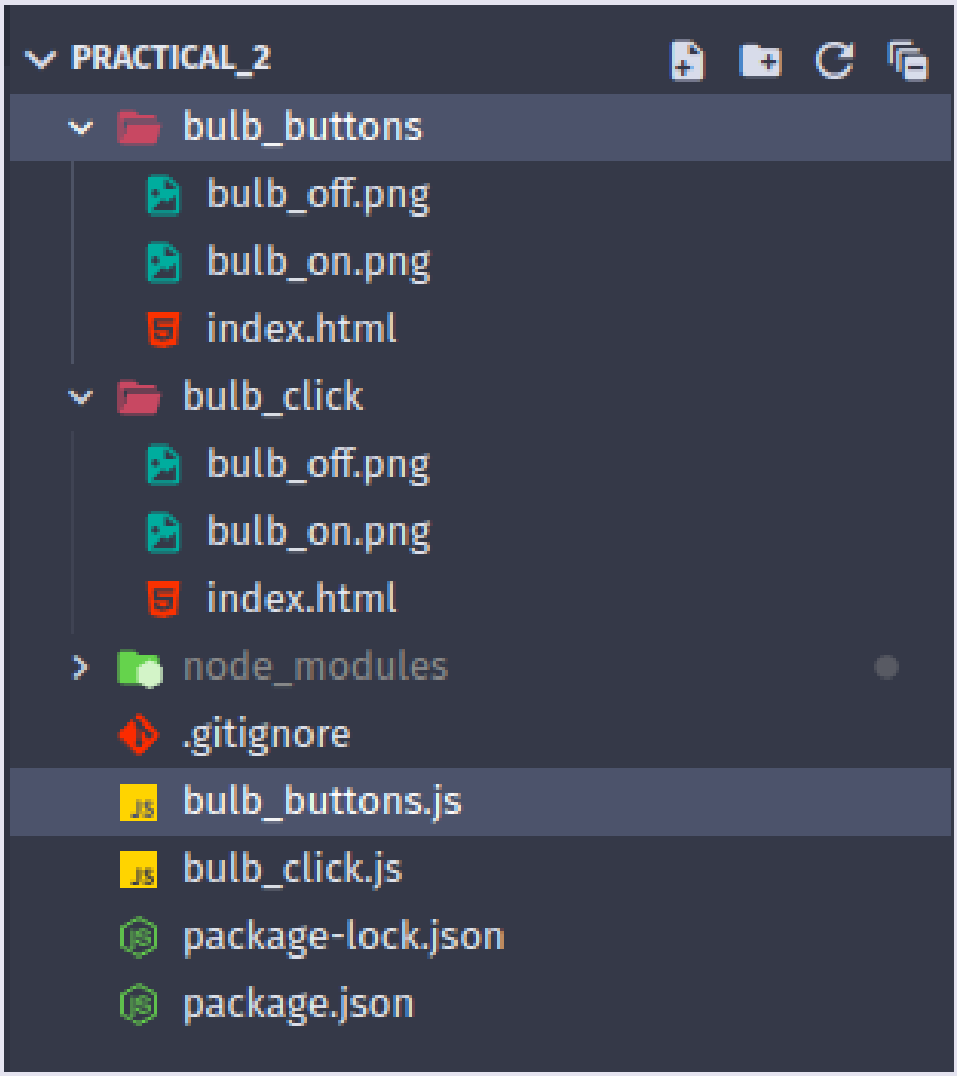
Branch - CBA Batch - 51
Microservices Practical 2

Aim : There is a requirement for deploying a NodeJS-based application on the local server. Implement it using a suitable code editor and deploy this application in the quickest way possible.

Practical 2.1 : Develop a NodeJS application to create any website GUI (use HTML, CSS, JavaScript) using a suitable code editor Sample GUI should contain two buttons, with one button to turn ON the bulb provided in the user interface and a second button to turn OFF the bulb.

Files Structure : (highlighted files and folders used for Practical 2.1)



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HTML (index.html) :

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>YSL Light Bulb</title>
<style>
body {
display: flex;
flex-direction: column;
align-items: center;
justify-content: center;
height: 100vh;
margin: 0;
background-color: #ffffff;
}

#bulb {
width: 400px;
height: 400px;
background-size: cover;
background-repeat: no-repeat;
```

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```
}

#controls {
display: flex;
justify-content: center;
margin-top: 20px;
}

.btn {
margin: 0 10px;
padding: 10px 15px;
font-size: 22px;
background-color: #5e81cc;
color: #ffffff;
border: none;
border-radius: 16px;
cursor: pointer;
}

.btn:hover {
background-color: #a347ba;
}
</style>
</head>
```

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```
<body>
<div id="bulb" style="background-image: url('bulb_off.png')"></div>
  
<div id="controls">
<button class="btn" onclick="turnOn()">ON</button>
<button class="btn" onclick="turnOff()">OFF</button>
</div>

<script>
function turnOn() {
document.getElementById("bulb").style.backgroundImage =
"url('bulb_on.png')";
}

function turnOff() {
document.getElementById("bulb").style.backgroundImage =
"url('bulb_off.png')";
}
</script>
</body>
</html>
```

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JS (bulb_buttons.js) :

```
let express = require("express");
let app = express();
let port = 6432;

app.use(express.static(__dirname + "/bulb_buttons"));

app.listen(port, function () {
console.log(`\nServer is being started on ${port}`);
});
```

Screenshots :

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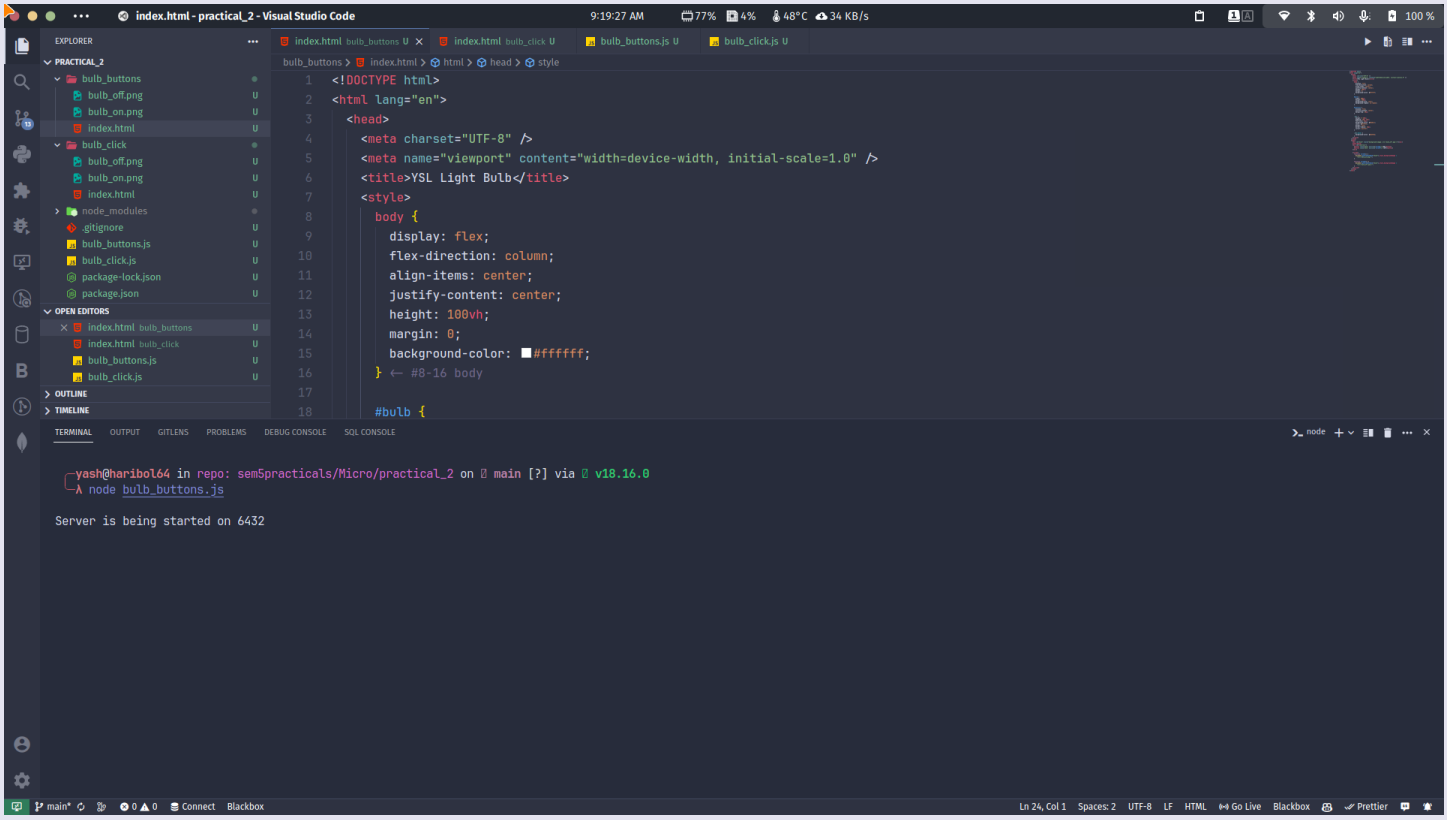

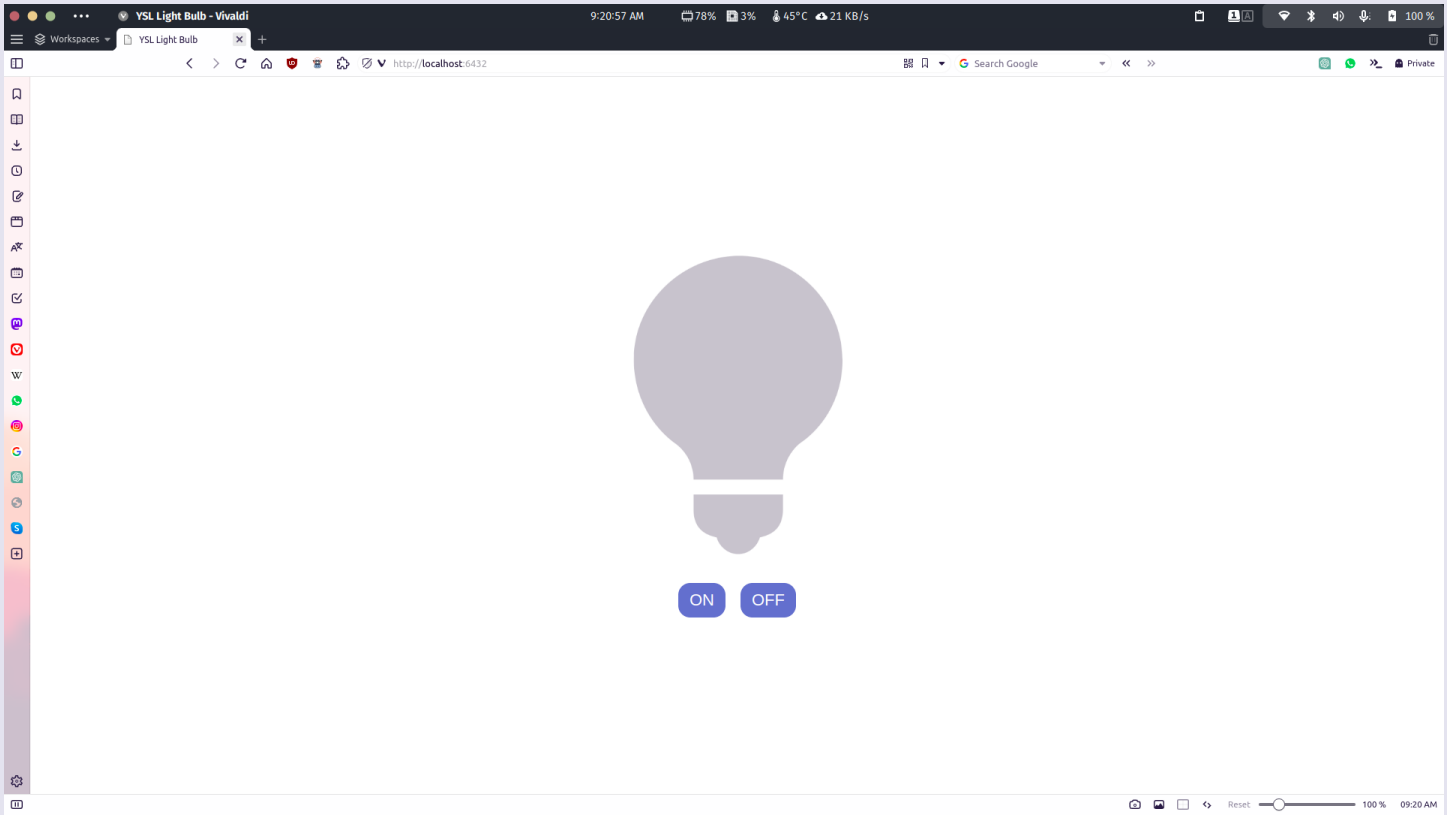

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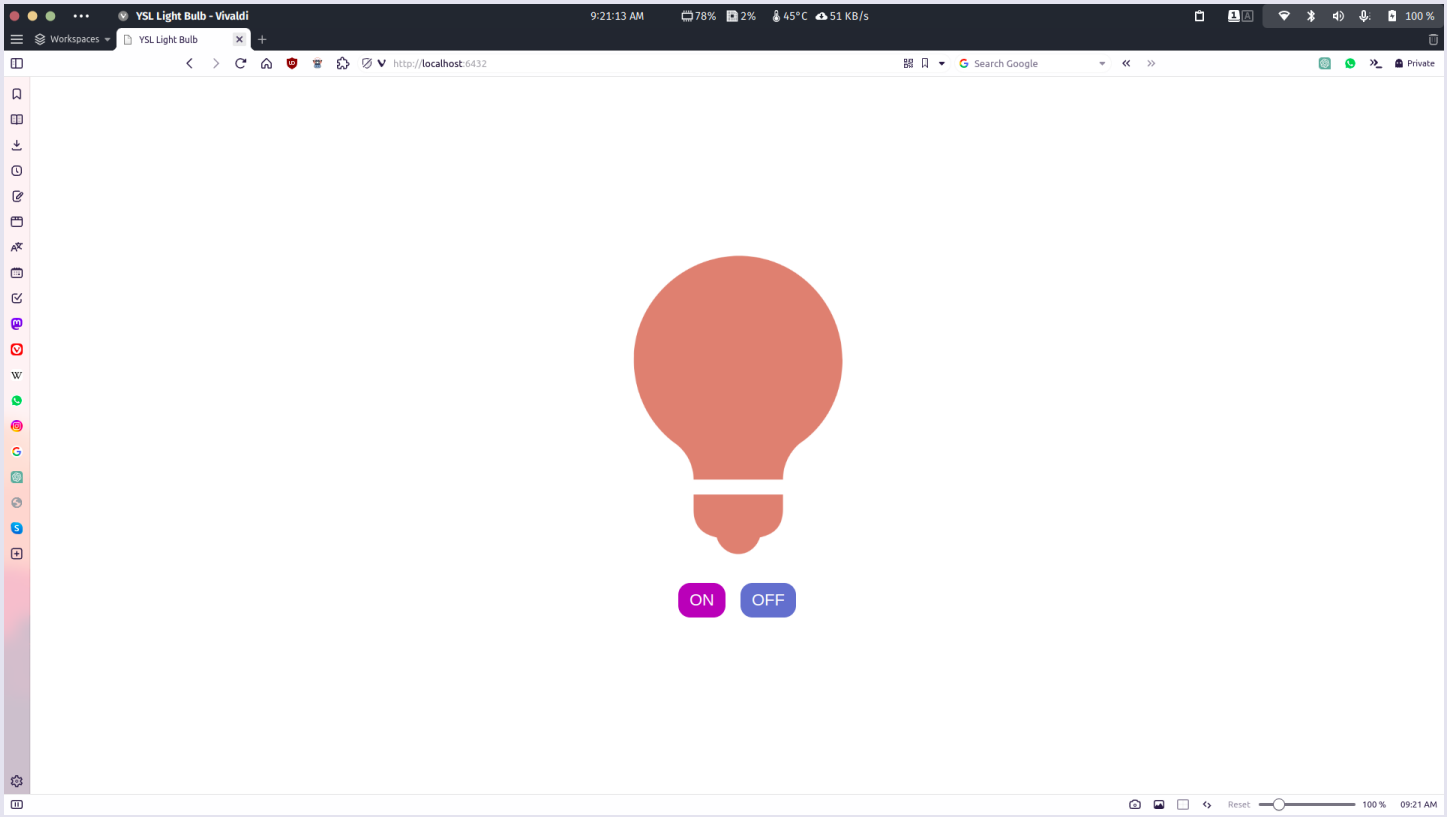

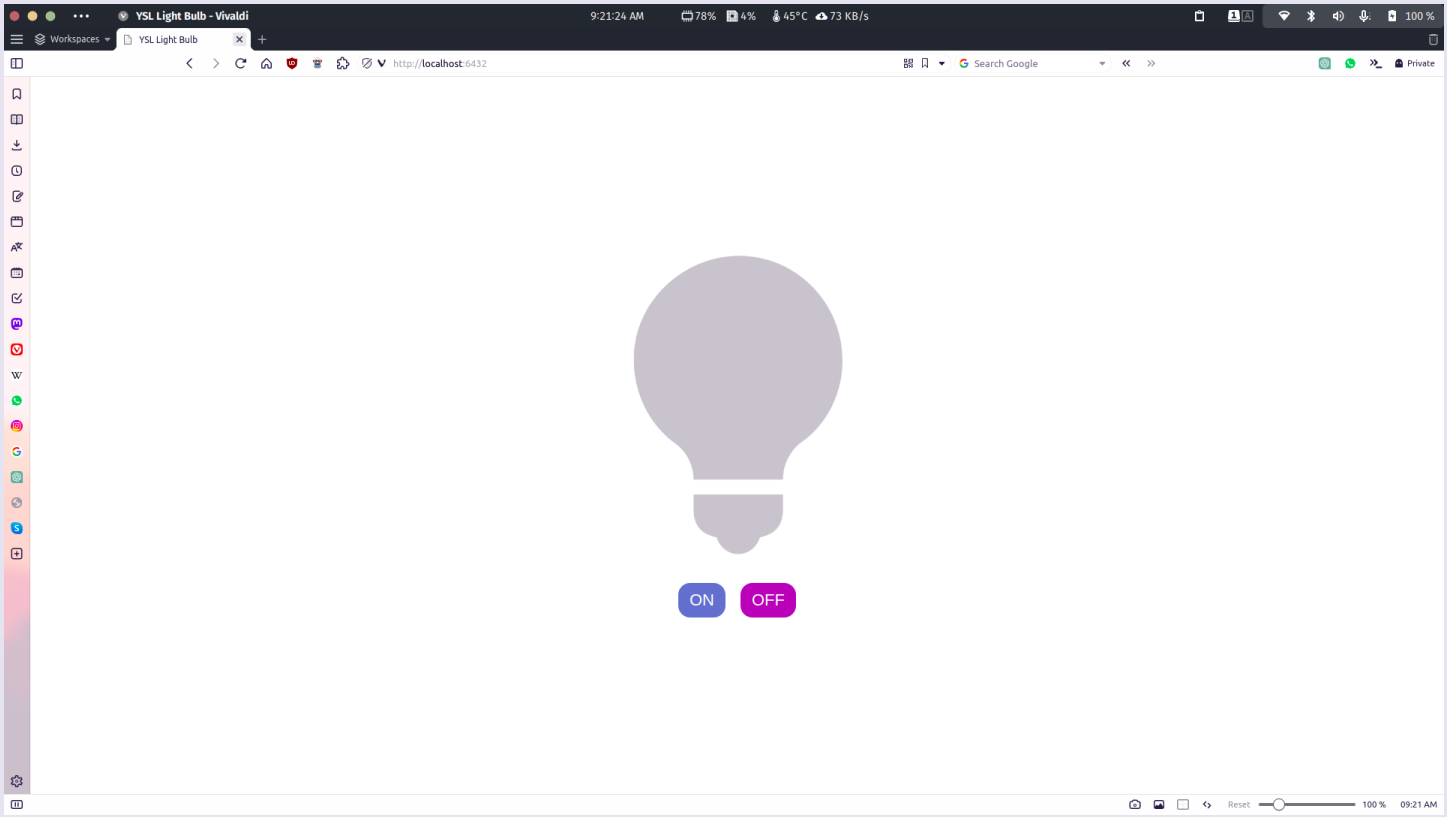

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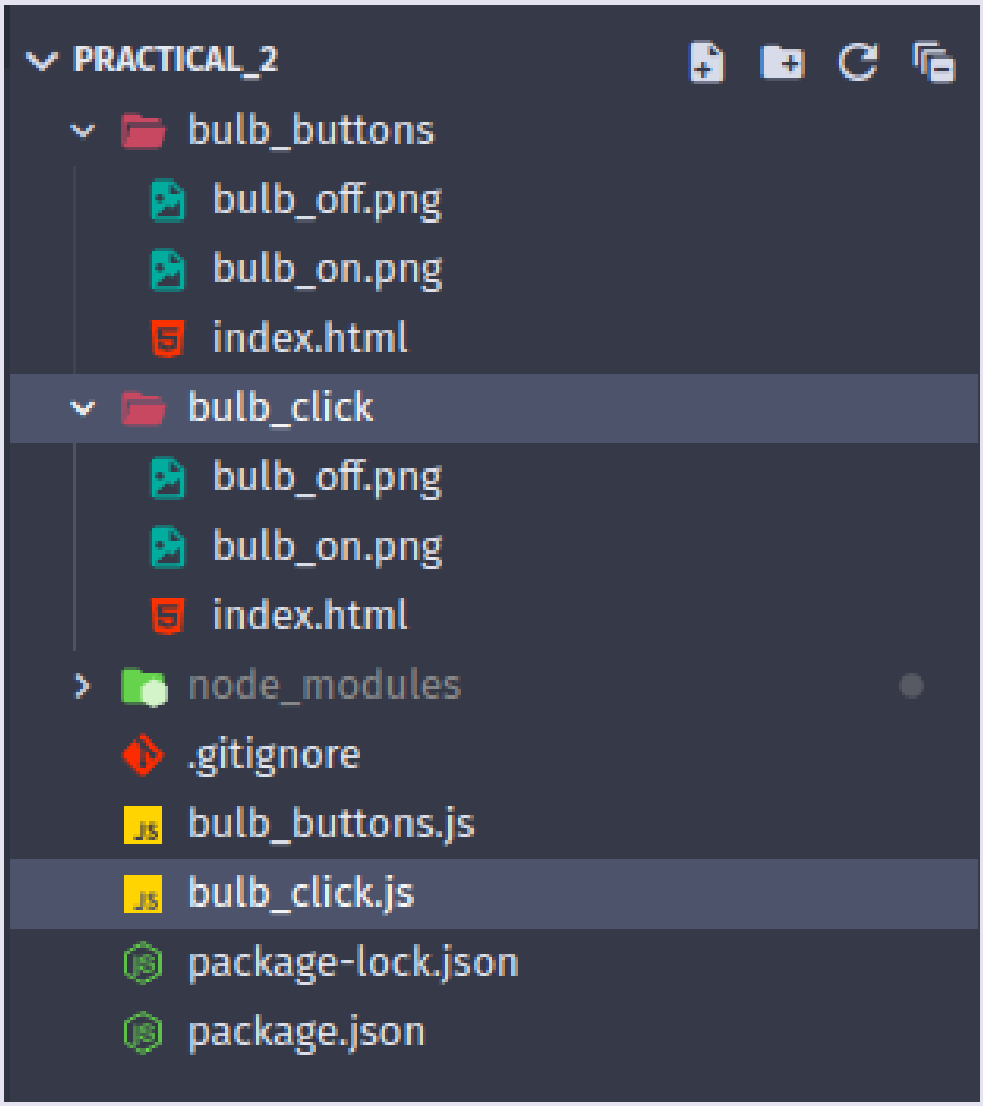
Practical 2.2 : Developing NodeJS application to create a website GUI (use HTML, CSS, JavaScript) to Click on the light bulb to turn on/off the light.

Files Structure : (highlighted files and folders used for Practical 2.2)



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HTML (index.html) :

```
<!DOCTYPE html>
<html lang="en">
<head>
<meta charset="UTF-8" />
<meta name="viewport" content="width=device-width, initial-scale=1.0" />
<title>YSL Light Bulb</title>
<style>
body {
display: flex;
flex-direction: column;
align-items: center;
justify-content: center;
height: 100vh;
margin: 0;
background-color: #ffffff;
}

#bulb {
width: 500px;
height: 500px;
background-size: cover;
background-repeat: no-repeat;
cursor: pointer;
```

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```
}
</style>
</head>
<body>
<div
id="bulb"
style="background-image: url('bulb_off.png')"
onclick="toggleBulb()"
></div>

<script>
let isBulbOn = false;
function toggleBulb() {
const bulbImage = document.getElementById("bulb");
if (isBulbOn) {
bulbImage.style.backgroundImage = "url('bulb_off.png')";
} else {
bulbImage.style.backgroundImage = "url('bulb_on.png')";
}
isBulbOn =!isBulbOn;
}
</script>
</body>
</html>
```

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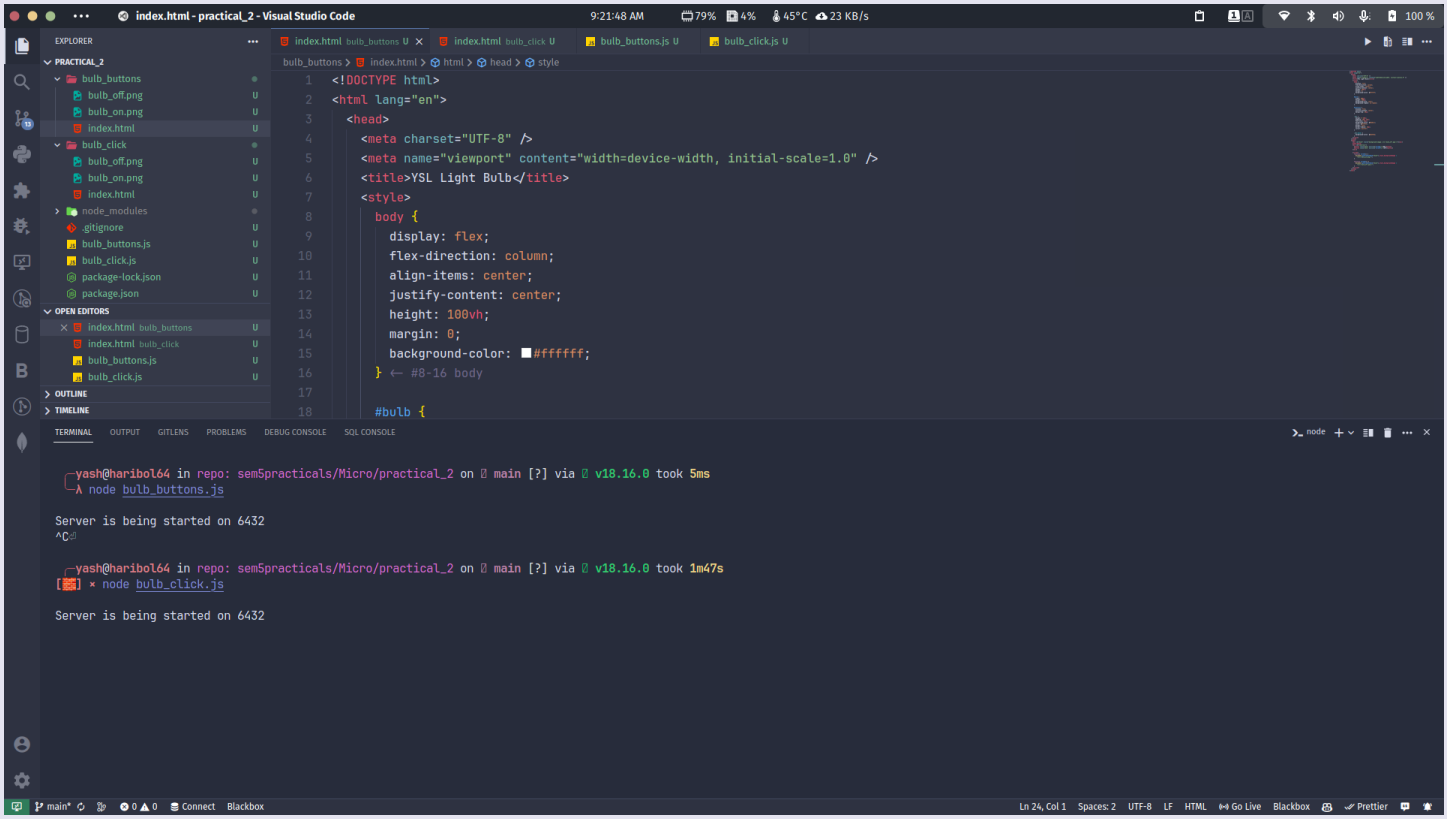
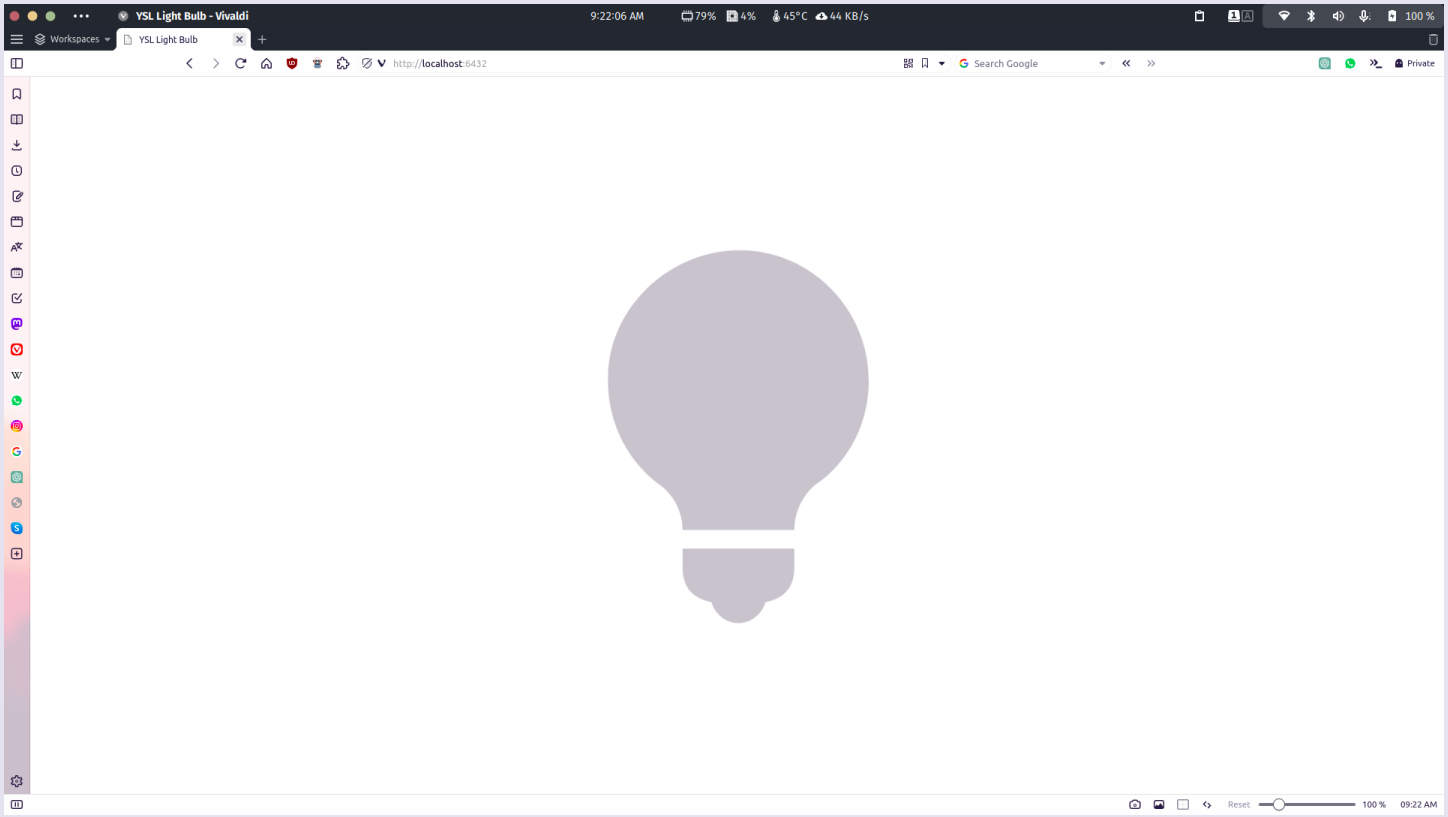
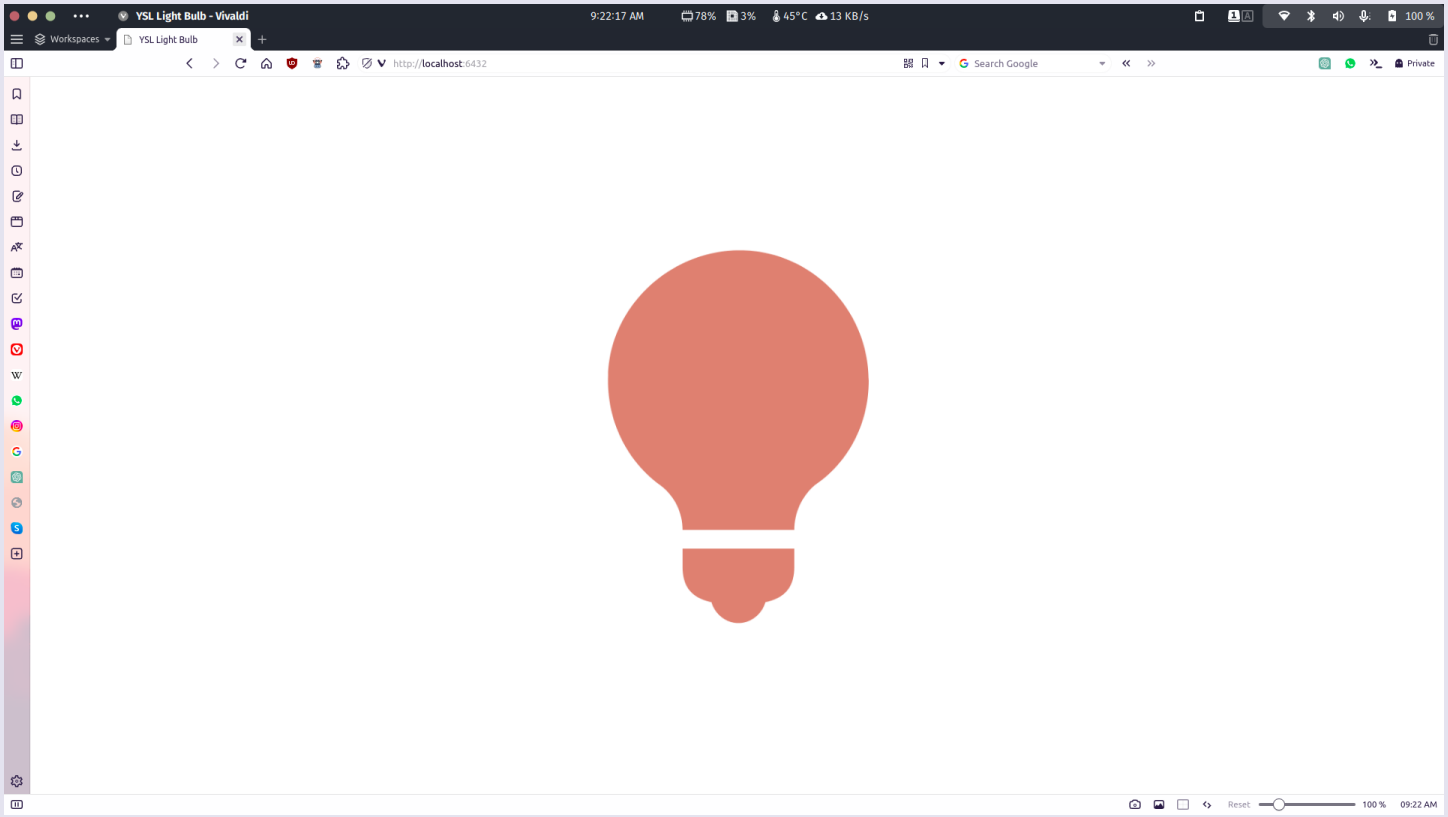
JS (bulb_click.js) :

```
let express = require("express");

let app = express();

let port = 6432;


app.use(express.static(__dirname + "/bulb_click"));

app.listen(port, function () {

console.log(`\nServer is being started on ${port}`);

});
```

Screenshots :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