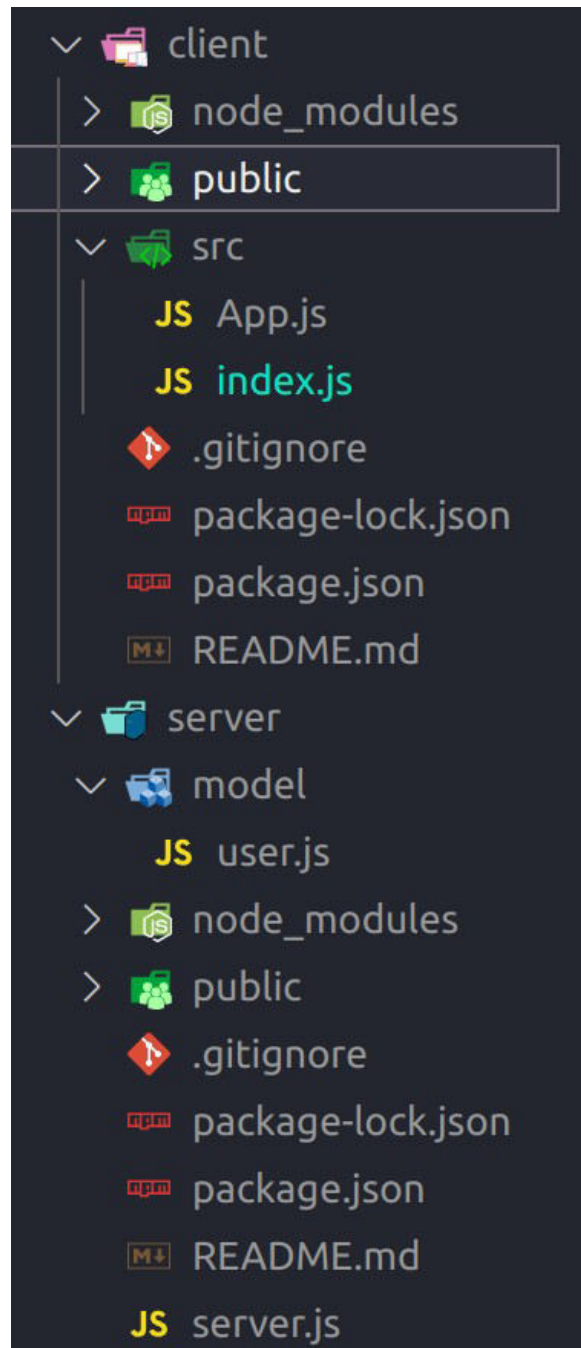


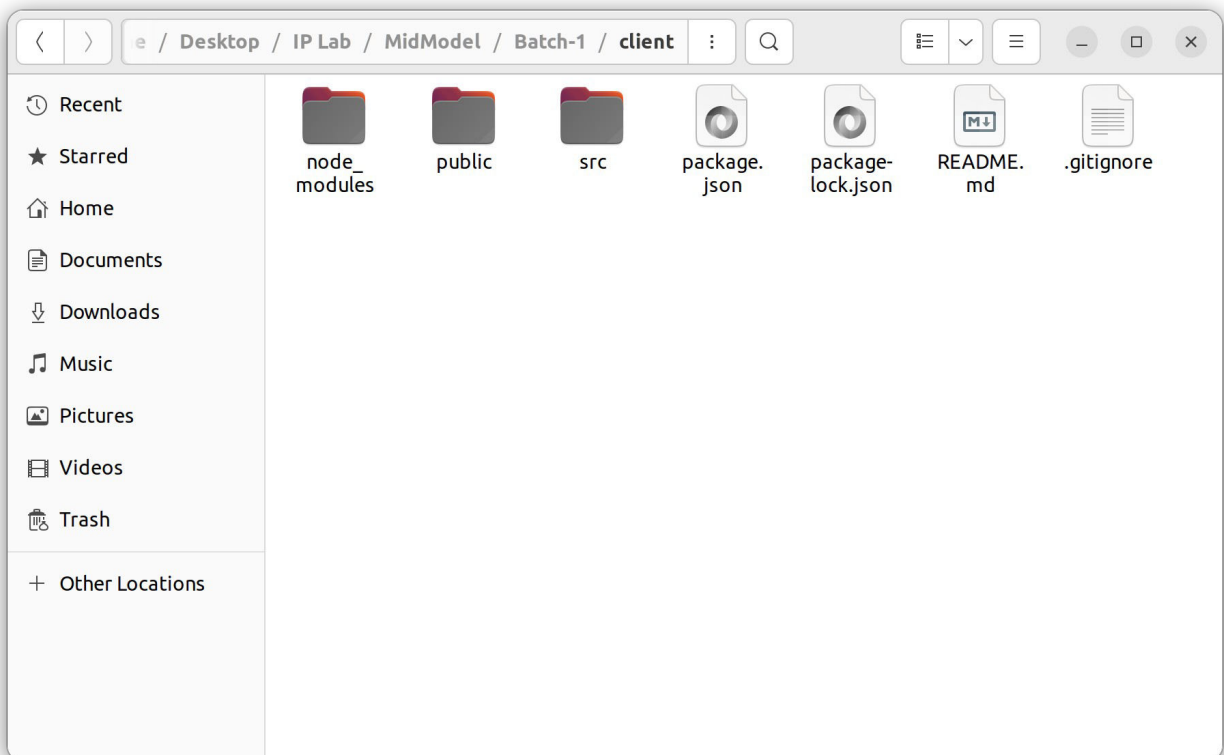
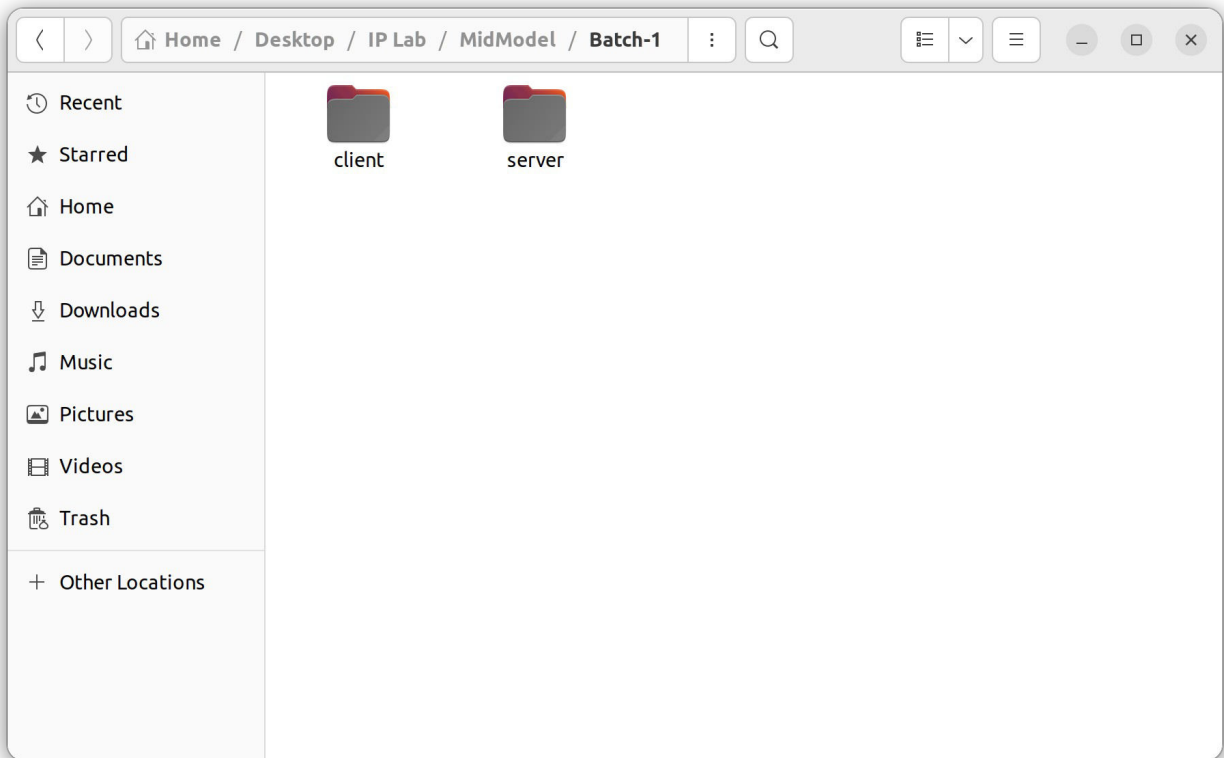
M.Rohith

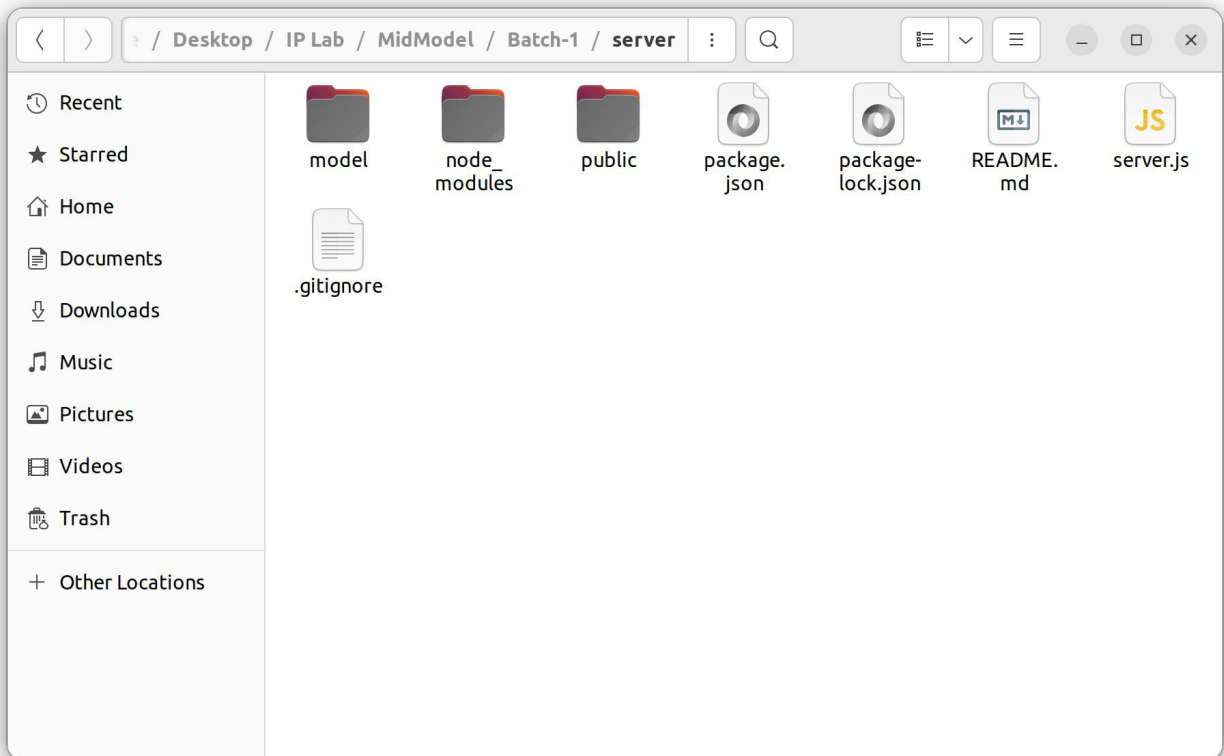
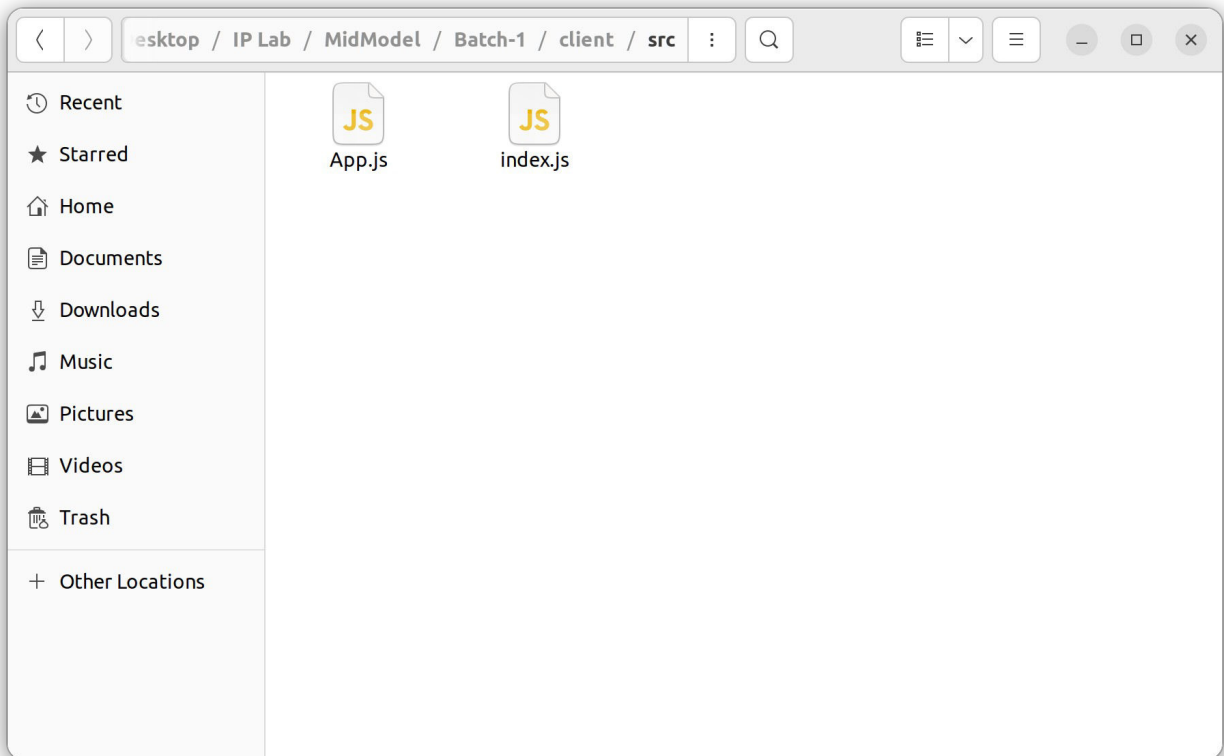
MVC ARCHITECTURE

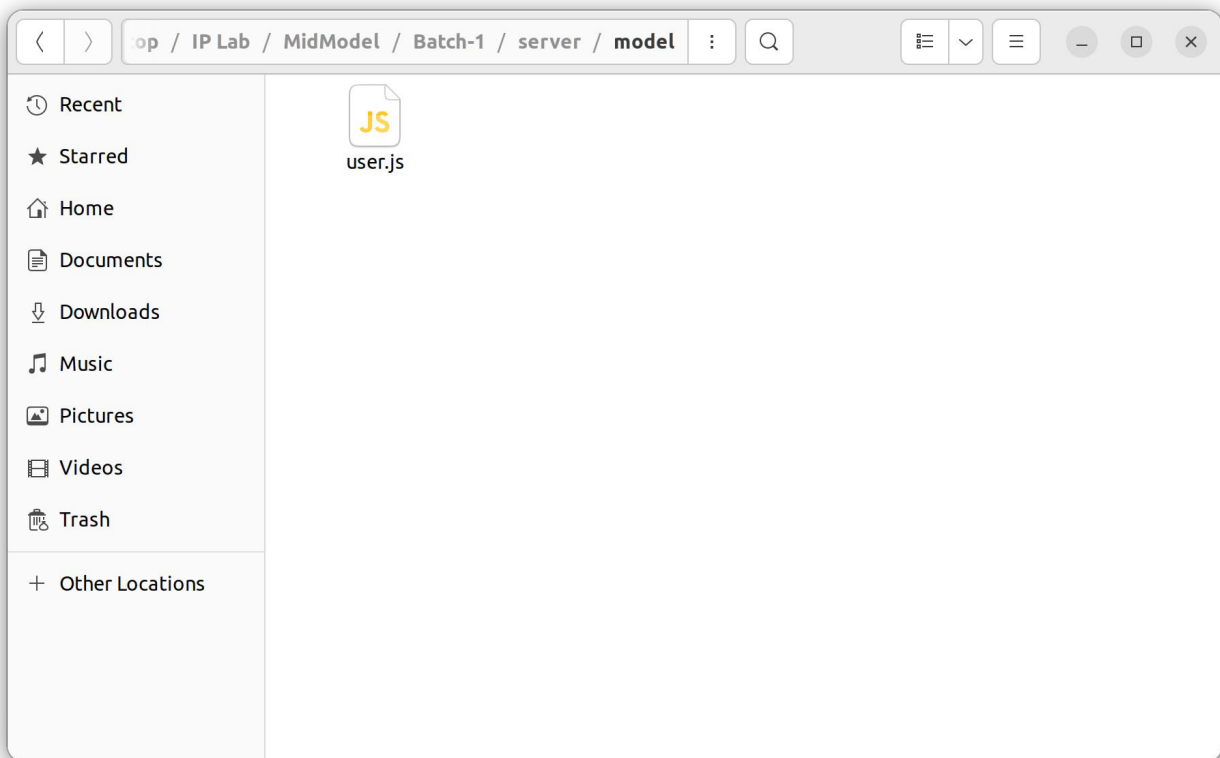
Batch-1

Structure:









Program code:

user.js

```
const mongoose = require("mongoose");

const UserSchema = new mongoose.Schema({
  username: String,
  usage: Number
});

const UserModel = mongoose.model("users", UserSchema);

module.exports = UserModel;
```

server.js

```
const mongoose = require("mongoose");
const cors = require("cors");
const express = require("express");
const UserModel = require("./model/user.js");

const app = express();
app.use(cors());
app.use(express.json());

mongoose.connect("mongodb://localhost:27017/infoBatch1");
```

```

app.post("/send", (req, res) => {
  const { username, userage } = req.body;
  console.log(`Searching for ${username} aged ${userage}`);
  UserModel.findOne({ username, userage })
    .then(result => res.json(result))
    .catch(err => console.log(err));
});

app.post("/insert", (req, res) => {
  const { username, userage } = req.body;
  console.log(`Inserting ${username} aged ${userage}`);
  UserModel.create({ username, userage })
    .then(result => res.json(result))
    .catch(err => console.log(err));
});

app.post("/delete", (req, res) => {
  const { username, userage } = req.body;
  console.log(`Deleting ${username} aged ${userage}`);
  UserModel.deleteOne({ username, userage })
    .then(result => res.json(result))
    .catch(err => console.log(err));
});

app.post("/update", (req, res) => {
  const { username, userage, newUsername, newUserage } = req.body;
  console.log(`Updating ${username} aged ${userage} to ${newUsername} aged $
{newUserage}`);
  UserModel.findOneAndUpdate({ username, userage }, { username: newUsername, userage:
newUserage }, { new: true })
    .then(result => res.json(result))
    .catch(err => console.log(err));
});

app.listen(3002, () => {
  console.log("Server is running on PORT 3002");
});

```

App.js

```

import { useState } from "react";
import axios from "axios";

export default function App() {
  let [name, setName] = useState("");
  let [age, setAge] = useState("");
  let [newName, setNewName] = useState("");
  let [newAge, setNewAge] = useState("");
  let [display, setDisplay] = useState("");

  function sendData() {

```

```

    console.log("Sending data...");
    axios.post("http://localhost:3002/send", { username: name, usage: age })
      .then(res => setDisplay(res.data ? `${res.data.username} aged ${res.data.usage} is Present` :
"User Not Found"))
      .catch(err => console.log(err));
  }

function insertData() {
  console.log("Inserting data...");
  axios.post("http://localhost:3002/insert", { username: name, usage: age })
    .then(res => console.log(res))
    .catch(err => console.log(err));
}

function deleteData() {
  console.log("Deleting Data...");
  axios.post("http://localhost:3002/delete", { username: name, usage: age })
    .then(res => console.log(res))
    .catch(err => console.log(err));
}

function updateData() {
  console.log("Updating Data...");
  axios.post("http://localhost:3002/update", { username: name, usage: age, newUsername:
newName, newUsage: newAge })
    .then(res => console.log(res))
    .catch(err => console.log(err));
}

return (
  <div>
    <center>
      <h1>MVC ARCHITECTURE PRACTICE</h1>
      <input type="text" placeholder="Username" onChange={(e) => setName(e.target.value)} />
      <input type="number" placeholder="Age" onChange={(e) => setAge(e.target.value)} />
      <br /><br />
      <button onClick={sendData}>Search</button>
      <br /><br />
      <button onClick={insertData}>Insert</button>
      <br /><br />
      <button onClick={deleteData}>Delete</button>
      <br /><br />
      <input type="text" placeholder="New Username" onChange={(e) =>
setNewName(e.target.value)} />
      <input type="number" placeholder="New Age" onChange={(e) =>
setNewAge(e.target.value)} />
      <button onClick={updateData}>Update</button>
      <br /><br />
      <h2>{display}</h2>
    </center>
  </div>
);

```

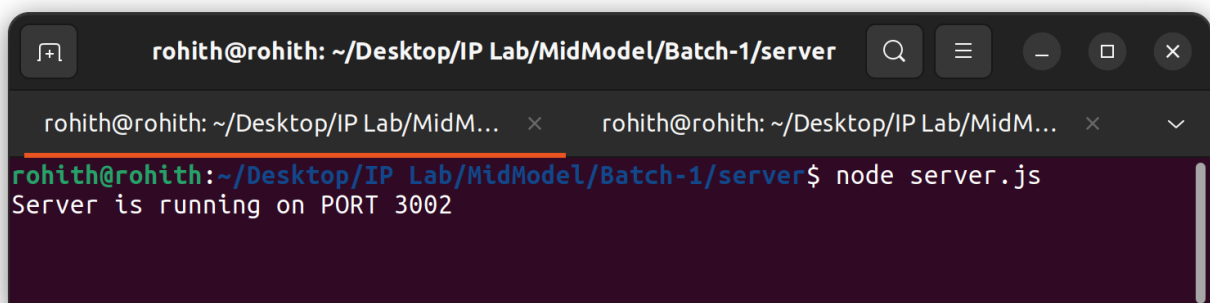
```
}
```

index.js

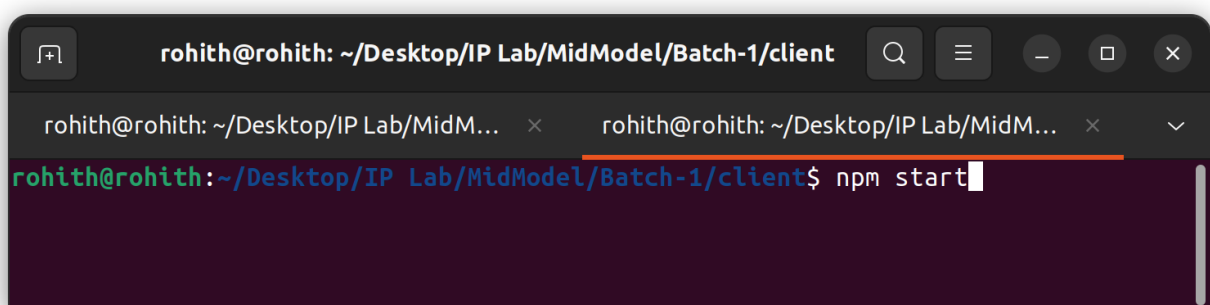
```
import React from 'react';
import ReactDOM from 'react-dom/client';
import App from './App';

const root = ReactDOM.createRoot(document.getElementById('root'));
root.render(
  <React.StrictMode>
    <App />
  </React.StrictMode>
);
```

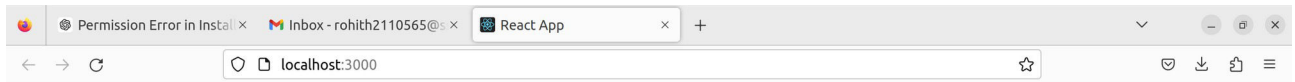
Output:

A terminal window with a dark background. The title bar shows 'rohith@rohith: ~/Desktop/IP Lab/MidModel/Batch-1/server'. The prompt is 'rohith@rohith:~/Desktop/IP Lab/MidModel/Batch-1/server\$'. The command 'node server.js' has been entered, and the output is 'Server is running on PORT 3002'.

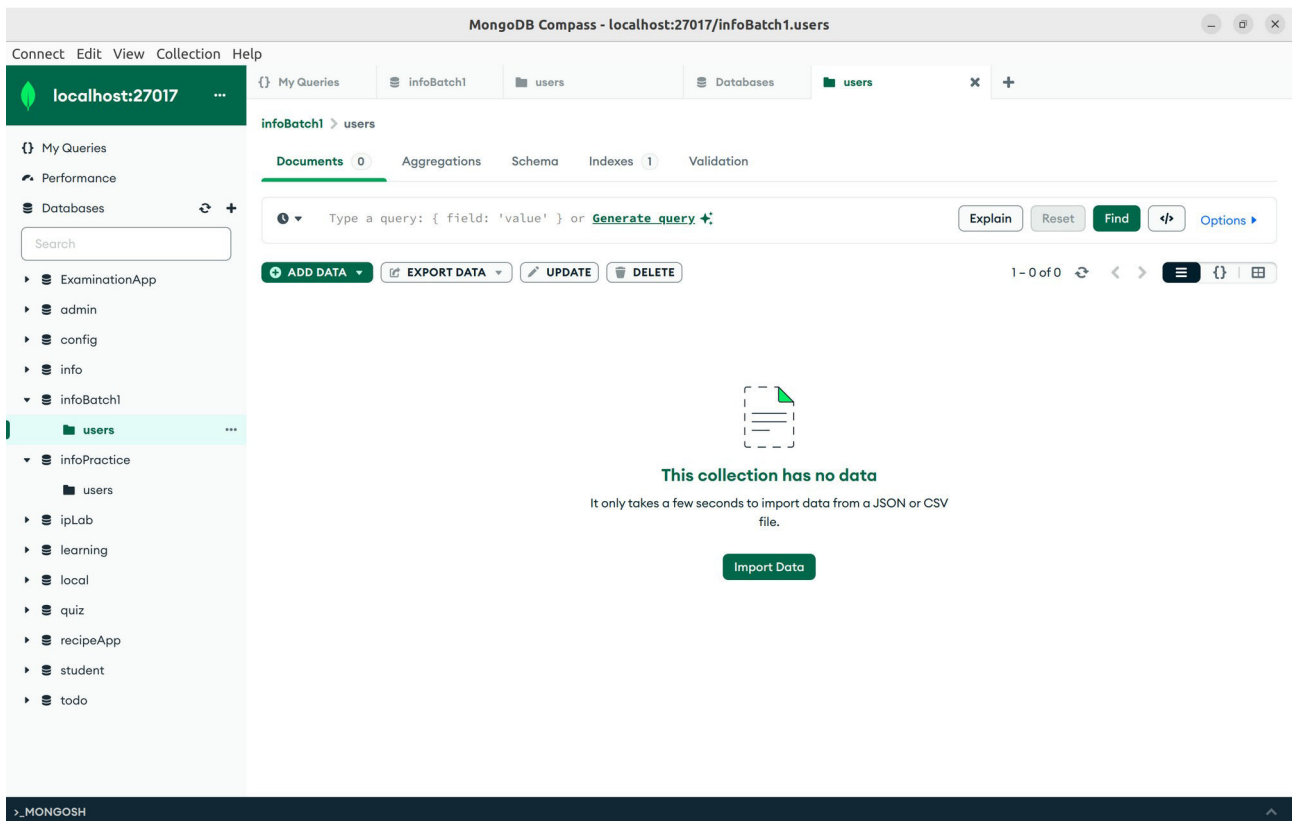
```
rohith@rohith: ~/Desktop/IP Lab/MidModel/Batch-1/server
rohith@rohith:~/Desktop/IP Lab/MidModel/Batch-1/server$ node server.js
Server is running on PORT 3002
```

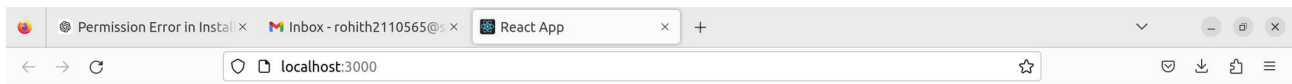
A terminal window with a dark background. The title bar shows 'rohith@rohith: ~/Desktop/IP Lab/MidModel/Batch-1/client'. The prompt is 'rohith@rohith:~/Desktop/IP Lab/MidModel/Batch-1/client\$'. The command 'npm start' has been entered, and the cursor is at the end of the line.

```
rohith@rohith: ~/Desktop/IP Lab/MidModel/Batch-1/client
rohith@rohith:~/Desktop/IP Lab/MidModel/Batch-1/client$ npm start
```



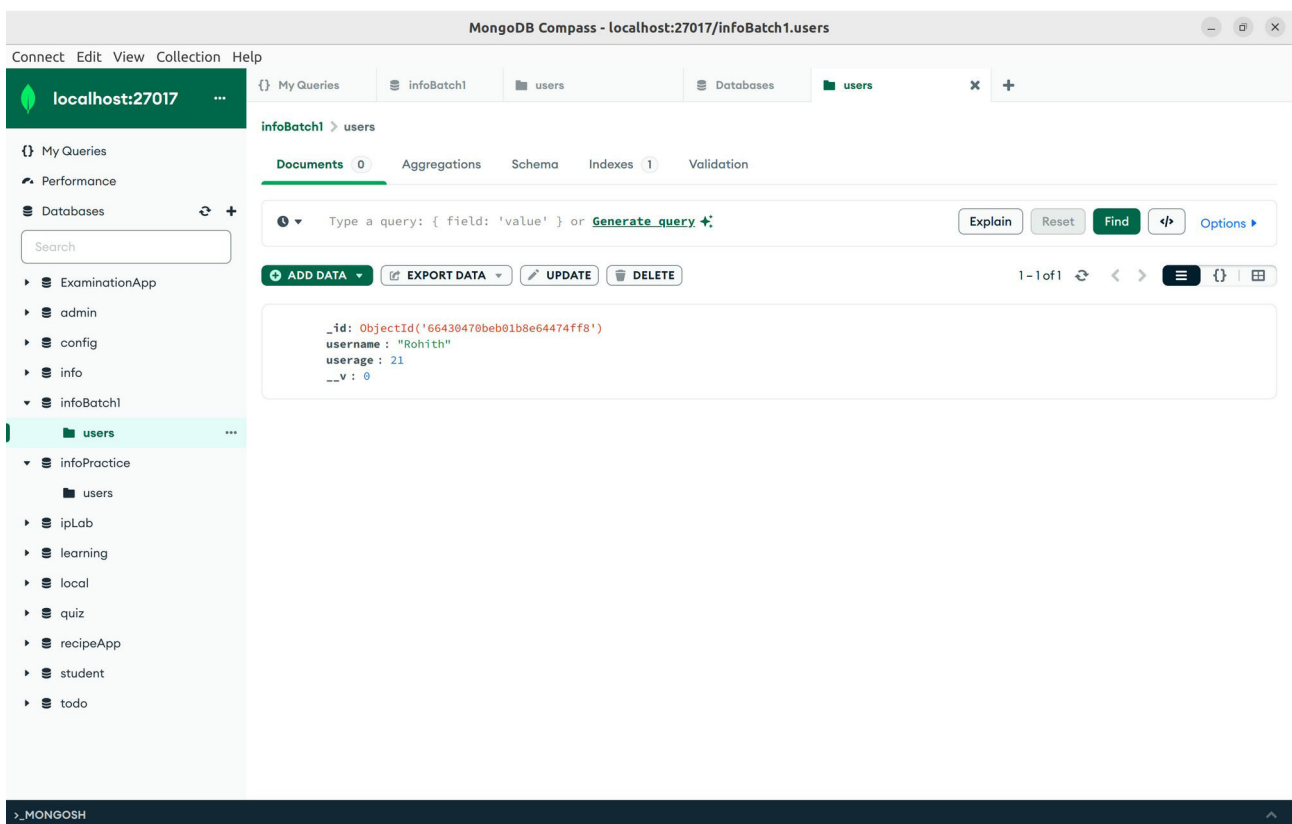
MVC ARCHITECTURE PRACTICE

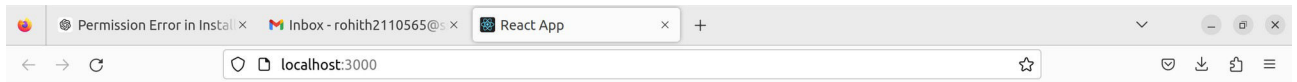




MVC ARCHITECTURE PRACTICE

<input type="text" value="Rohith"/>	<input type="text" value="21"/>
<input type="button" value="Search"/>	
<input type="button" value="Insert"/>	
<input type="button" value="Delete"/>	
<input type="text" value="New Username"/>	<input type="text" value="New Age"/> <input type="button" value="Update"/>

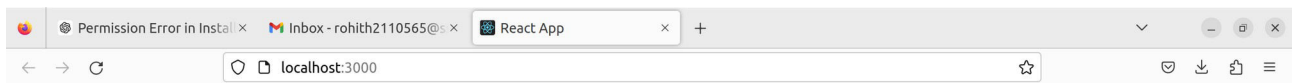




MVC ARCHITECTURE PRACTICE

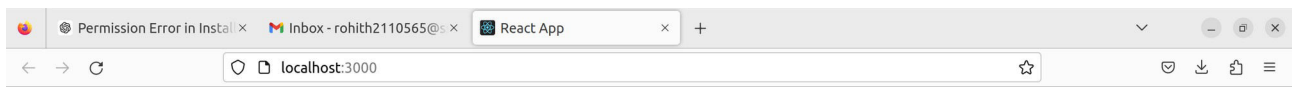
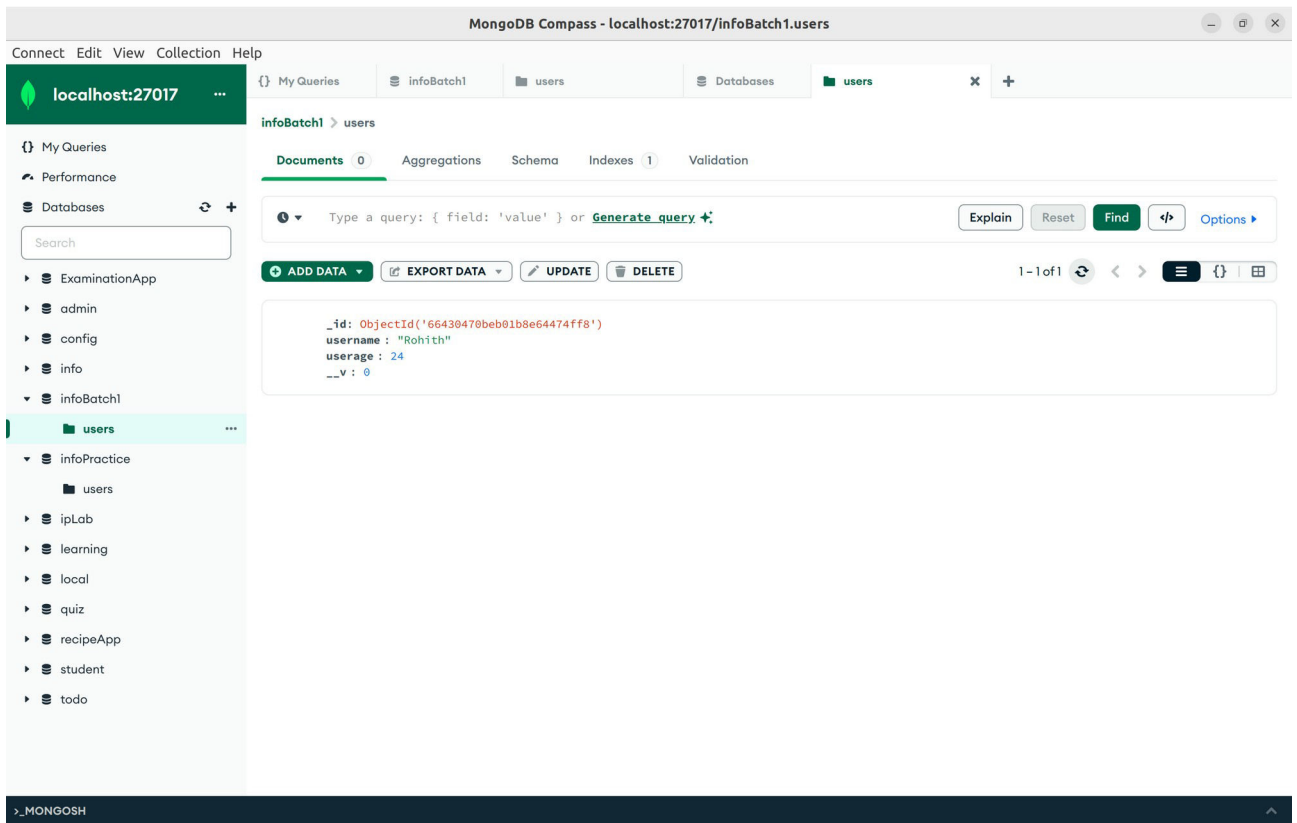
<input type="text" value="Rohith"/>	<input type="text" value="21"/>
<input type="button" value="Search"/>	
<input type="button" value="Insert"/>	
<input type="button" value="Delete"/>	
<input type="text" value="New Username"/>	<input type="text" value="New Age"/> <input type="button" value="Update"/>

Rohith aged 21 is Present



MVC ARCHITECTURE PRACTICE

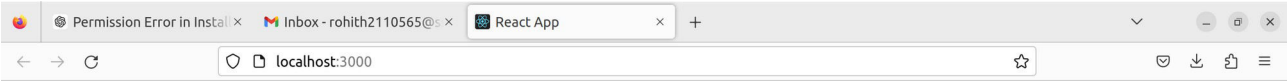
<input type="text" value="Rohith"/>	<input type="text" value="21"/>
<input type="button" value="Search"/>	
<input type="button" value="Insert"/>	
<input type="button" value="Delete"/>	
<input type="text" value="Rohith"/>	<input type="text" value="24"/> <input type="button" value="Update"/>



MVC ARCHITECTURE PRACTICE

<input type="text" value="Rohith"/>	<input type="text" value="24"/>
<input type="button" value="Search"/>	
<input type="button" value="Insert"/>	
<input type="button" value="Delete"/>	
<input type="text" value="New Username"/>	<input type="text" value="New Age"/> <input type="button" value="Update"/>

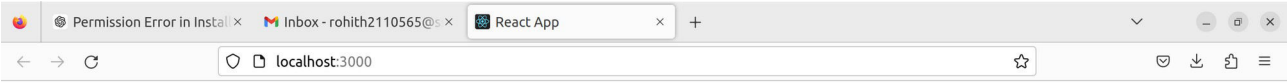
Rohith aged 24 is Present



MVC ARCHITECTURE PRACTICE

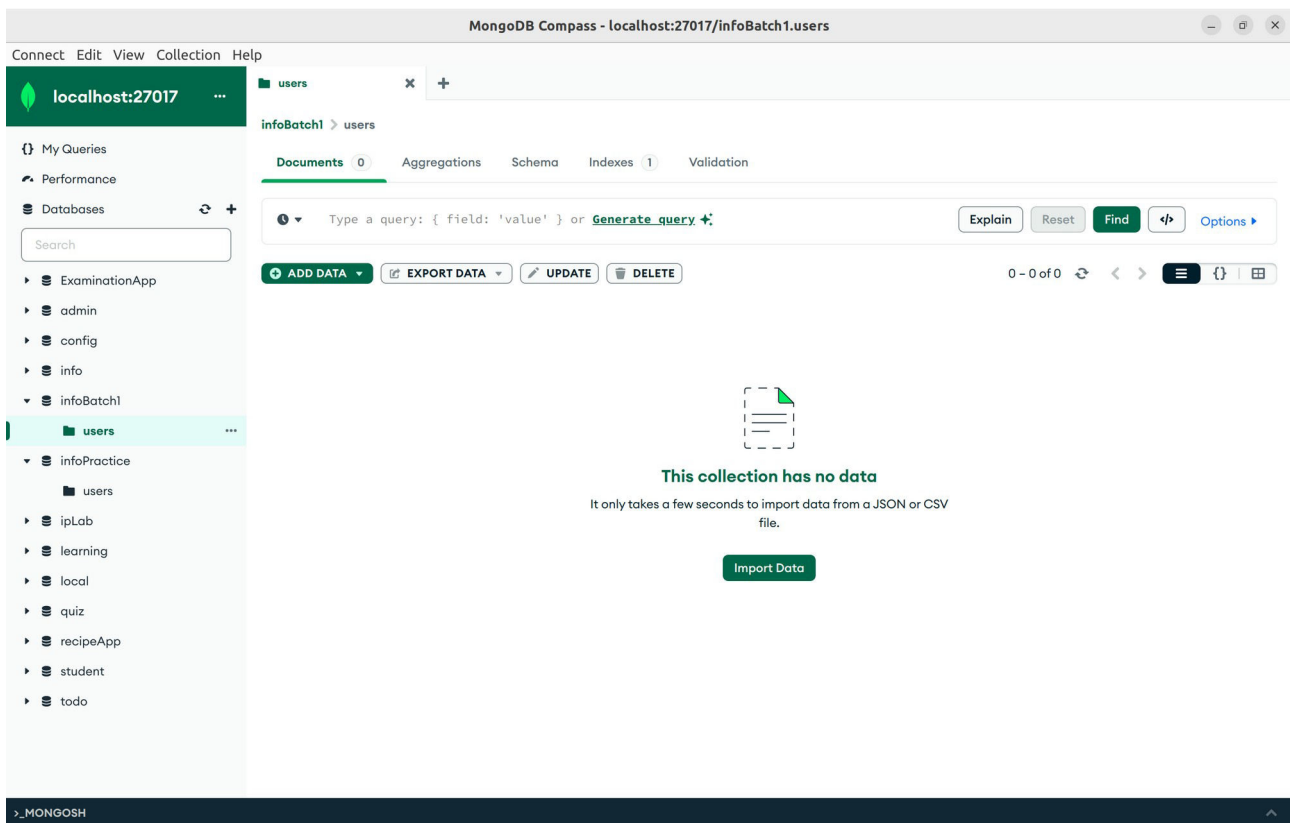
<input type="text" value="Rohith"/>	<input type="text" value="21"/>
<input type="button" value="Search"/>	
<input type="button" value="Insert"/>	
<input type="button" value="Delete"/>	
<input type="text" value="New Username"/>	<input type="text" value="New Age"/> <input type="button" value="Update"/>

User Not Found



MVC ARCHITECTURE PRACTICE

<input type="text" value="Rohith"/>	<input type="text" value="24"/>
<input type="button" value="Search"/>	
<input type="button" value="Insert"/>	
<input type="button" value="Delete"/>	
<input type="text" value="New Username"/>	<input type="text" value="New Age"/> <input type="button" value="Update"/>



```
rohith@rohith: ~/Desktop/IP Lab/MidModel/Batch-1/server
```

```
rohith@rohith: ~/Desktop/IP Lab/MidM... x rohith@rohith: ~/Desktop/IP Lab/MidM... x
```

```
rohith@rohith:~/Desktop/IP Lab/MidModel/Batch-1/server$ node server.js
```

```
Server is running on PORT 3002
```

```
Inserting Rohith aged 21
```

```
Updating Rohith aged 21 to Rohith aged 24
```

```
Updating aged to Karthi aged 24
```

```
Deleting Rohith aged 24
```

```
Updating Rohith aged 24 to Rohith aged 24
```

```
Updating Rohith aged 24 to Rohith aged 24
```

```
Updating Rohith aged 24 to Rohith aged 24
```

```
Inserting Rohith aged 21
```

```
Searching for Rohith aged 21
```

```
Updating Rohith aged 21 to Rohith aged 24
```

```
Searching for Rohith aged 24
```

```
Searching for Rohith aged 21
```