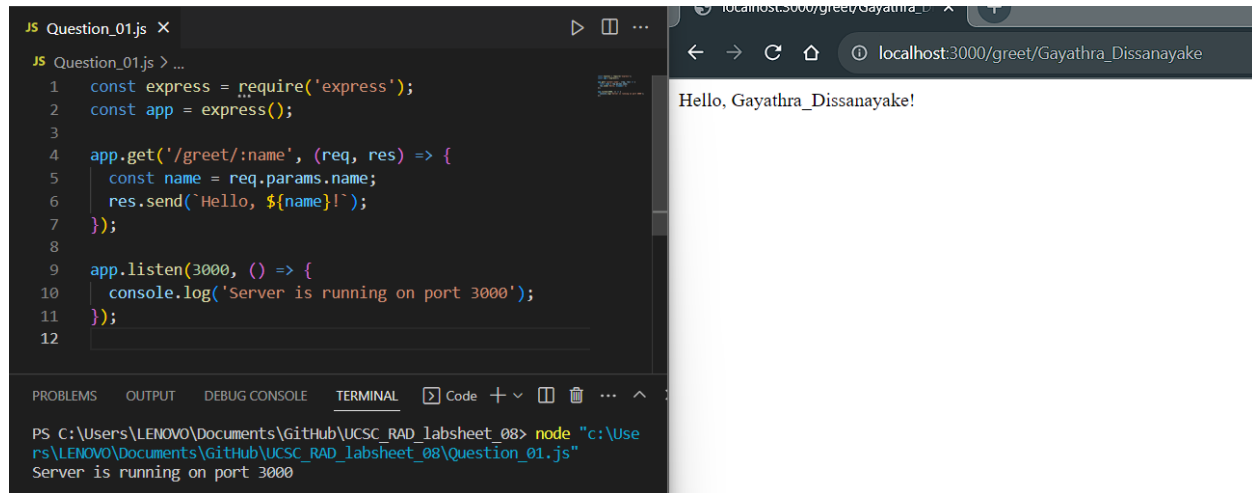# SCS2208 Rapid Application Development
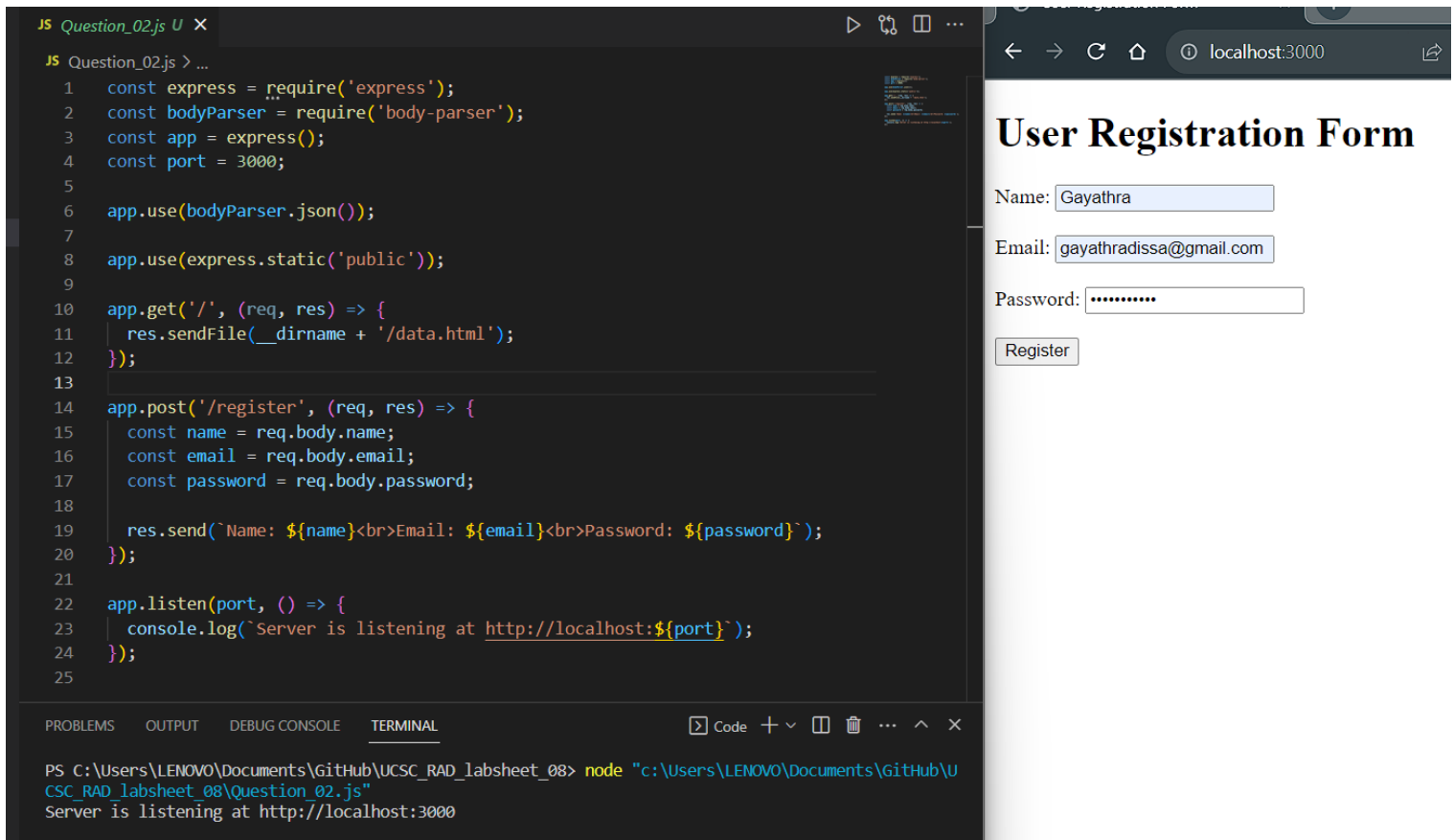
Labsheet 08

Index number: 21000557

- Github Repository: https://github.com/ItsAeox/UCSC_RAD_labsheet_08
- Screenshots of the code is given below.
  1.

  2. *Returns as undefined*

3.

```js
const express = require('express');
const app = express();

const books = [
  { id: 1, title: 'Book 1' },
  { id: 2, title: 'Book 2' },
  { id: 3, title: 'Book 3' }
];

app.get('/api/books', (req, res) => {
  res.json(books);
});

const port = 3000;
app.listen(port, () => {
  console.log(`Server is running on port ${port}`);
});
```

```
PS C:\Users\LENOVO\Documents\GitHub\UCSC_RAD_labsheet_08> node "c:\Use
rs\LENOVO\Documents\GitHub\UCSC_RAD_labsheet_08\Question_03.js"
Server is running on port 3000
```

localhost:3000/api/books

```
[{"id":1,"title":"Book 1"},{"id":2,"title":"Book 2"},{"id":3,"title":"Book 3"}]
```

4.

```js
const express = require('express');
const app = express();

const validUsername = 'gayathra';
const validPassword = 'password123';

app.get('/authenticate', (req, res) => {
  const { username, password } = req.query;

  if (username === validUsername && password === val
    res.send(`Welcome, ${username}!`);
  } else {
    res.status(401).send('Authentication failed. Inv
  }
});

const PORT = 3000;
app.listen(PORT, () => {
  console.log(`Server is running on port ${PORT}`);
});
```

```
PS C:\Users\LENOVO\Documents\GitHub\UCSC_RAD_labsheet_08> node
_labsheet_08\Question_04.js"
Server is running on port 3000
```

localhost:3000/authenticate?username=gayathra&password=password123

Welcome, gayathra!

5.

```js
const express = require('express');
const app = express();

app.use((req, res, next) => {
  res.status(404).render('error404');
});

app.use((err, req, res, next) => {
  console.error(err.stack);
  res.status(500).render('error500');
});

app.listen(3000, () => {
  console.log('Server is running on port 3000');
});
```

PROBLEMS   OUTPUT   DEBUG CONSOLE   TERMINAL

PS C:\Users\LENOVO\Documents\GitHub\UCSC_RAD_labsheet_08> node "c:
_labsheet_08\Question_05.js"
Server is running on port 3000

6.

```javascript
1   const express = require('express');
2   const app = express();
3   const port = 3000;
4
5   app.get('/calculate', (req, res) => {
6       const num1 = parseFloat(req.query.num1);
7       const num2 = parseFloat(req.query.num2);
8       const operation = req.query.operation;
9
10      let result;
11
12      switch (operation) {
13          case 'add':
14              result = num1 + num2;
15              break;
16          case 'subtract':
17              result = num1 - num2;
18              break;
19          case 'multiply':
20              result = num1 * num2;
21              break;
22          case 'divide':
23              if (num2 !== 0) {
24                  result = num1 / num2;
25              } else {
26                  return res.status(400).json({ error: 'Division by zero is not allowed' });
27              }
28              break;
29          default:
30              return res.status(400).json({ error: 'Invalid operation provided' });
31      }
32
33      res.json({ result });
34  });
35
36  app.listen(port, () => {
37      console.log(`Server is listening at http://localhost:${port}`);
```

localhost:3000/calculate?num1=4&num2=7&operation=multiply

{"result":28}

localhost:3000/calculate?num1=10&num2=2&operation=subtract

{"result":8}