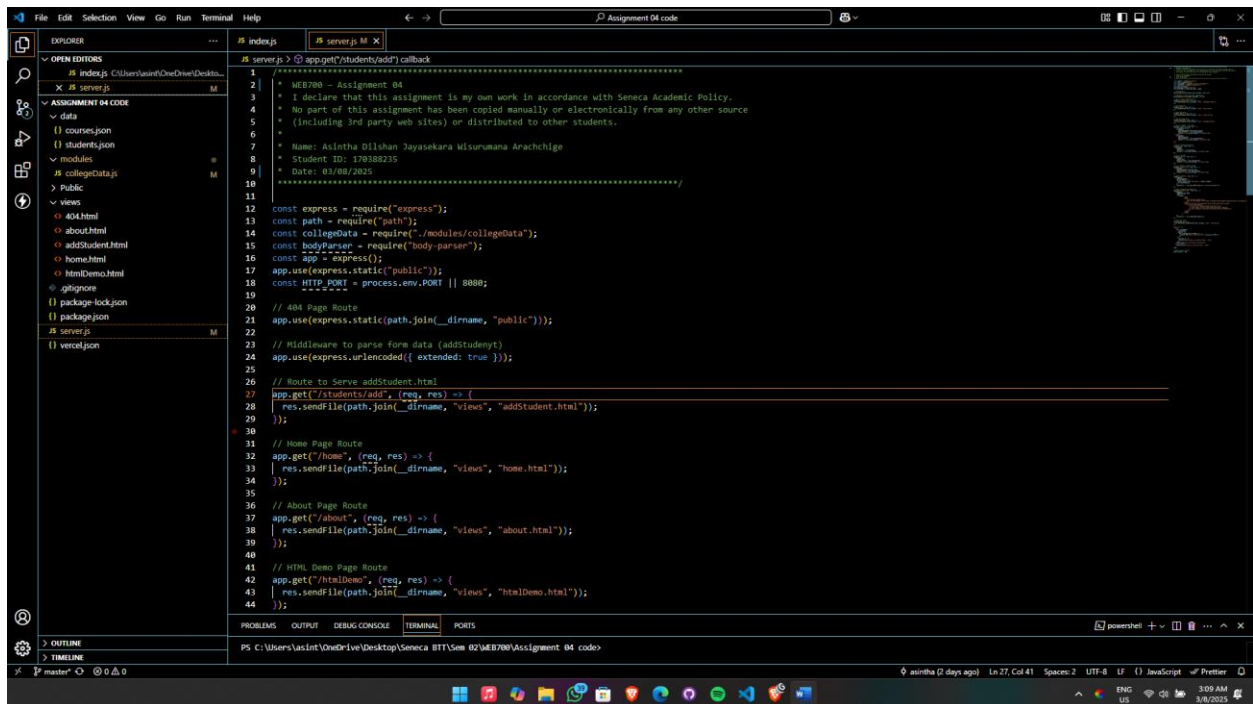


WEB700_Assignment4_Asintha Dilshan Jayasekara (170388235)

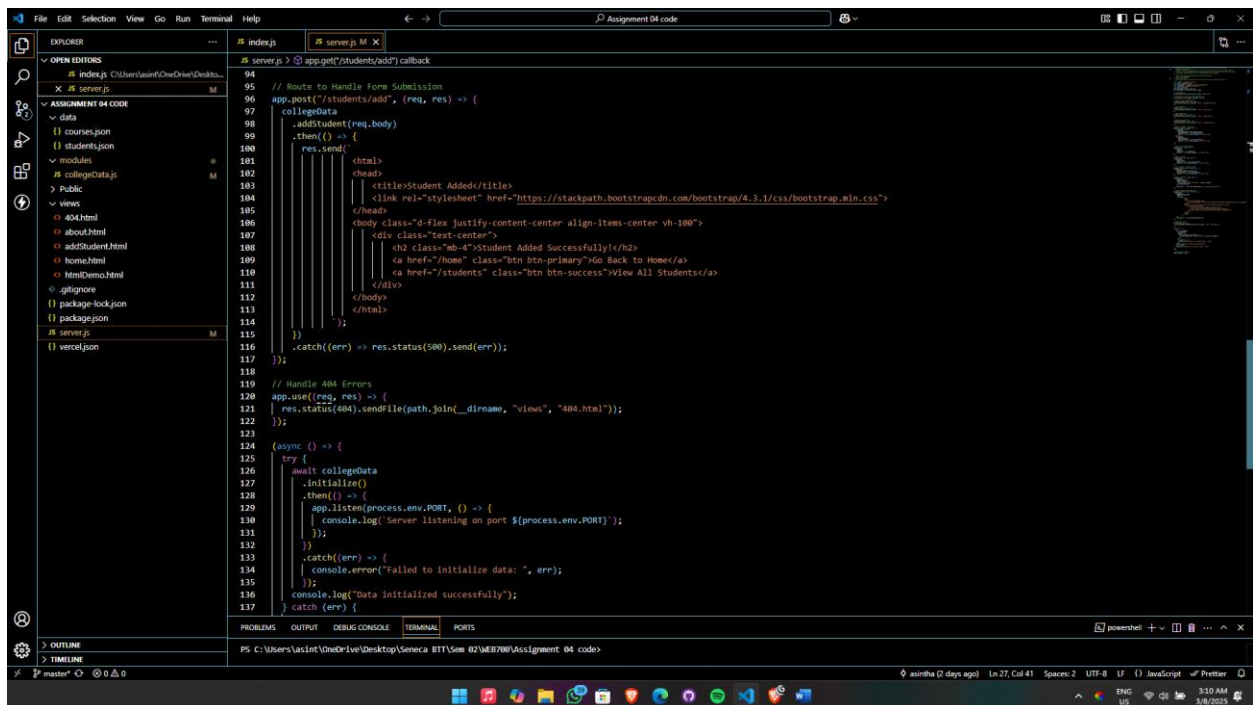
GitHub Link: <https://github.com/asinha-dilshan/Assignment-04-code.git>

WebSite Link: <https://assignment-04-code.vercel.app/home>



```
1 // =====
2 * WEB700 - Assignment 04
3 * I declare that this assignment is my own work in accordance with Seneca Academic Policy.
4 * No part of this assignment has been copied manually or electronically from any other source
5 * (including 3rd party web sites) or distributed to other students.
6 *
7 * Name: Asintha Dilshan Jayasekara Misurumana Arachchige
8 * Student ID: 170388235
9 * Date: 01/08/2025
10 * =====
11
12 const express = require("express");
13 const path = require("path");
14 const collegeData = require("./modules/collegeData");
15 const bodyParser = require("body-parser");
16 const app = express();
17 app.use(express.static("public"));
18 const HTTP_PORT = process.env.PORT || 8080;
19
20 // 404 Page Route
21 app.use(express.static(path.join(__dirname, "public")));
22
23 // Middleware to parse form data (addStudent)
24 app.use(express.urlencoded({ extended: true }));
25
26 // Route to Serve addStudent.html
27 app.get("/students/add", (req, res) => {
28   res.sendFile(path.join(__dirname, "views", "addStudent.html"));
29 });
30
31 // Home Page Route
32 app.get("/home", (req, res) => {
33   res.sendFile(path.join(__dirname, "views", "home.html"));
34 });
35
36 // About Page Route
37 app.get("/about", (req, res) => {
38   res.sendFile(path.join(__dirname, "views", "about.html"));
39 });
40
41 // HTML Demo Page Route
42 app.get("/htmlDemo", (req, res) => {
43   res.sendFile(path.join(__dirname, "views", "htmlDemo.html"));
44 });
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Figure 1: Server.js



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94 // =====
95 * WEB700 - Assignment 04
96 * I declare that this assignment is my own work in accordance with Seneca Academic Policy.
97 * No part of this assignment has been copied manually or electronically from any other source
98 * (including 3rd party web sites) or distributed to other students.
99 *
100 * Name: Asintha Dilshan Jayasekara Misurumana Arachchige
101 * Student ID: 170388235
102 * Date: 01/08/2025
103 * =====
104
105 const express = require("express");
106 const path = require("path");
107 const collegeData = require("./modules/collegeData");
108 const bodyParser = require("body-parser");
109 const app = express();
110 app.use(express.static("public"));
111 const HTTP_PORT = process.env.PORT || 8080;
112
113 // 404 Page Route
114 app.use(express.static(path.join(__dirname, "public")));
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116 // Middleware to parse form data (addStudent)
117 app.use(express.urlencoded({ extended: true }));
118
119 // Route to Serve addStudent.html
120 app.get("/students/add", (req, res) => {
121   res.sendFile(path.join(__dirname, "views", "addStudent.html"));
122 });
123
124 // Home Page Route
125 app.get("/home", (req, res) => {
126   res.sendFile(path.join(__dirname, "views", "home.html"));
127 });
128
129 // About Page Route
130 app.get("/about", (req, res) => {
131   res.sendFile(path.join(__dirname, "views", "about.html"));
132 });
133
134 // HTML Demo Page Route
135 app.get("/htmlDemo", (req, res) => {
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Figure 2: Server.js 2

WEB700_Assignment4_Asintha Dilshan Jayasekara (170388235)

The screenshot displays a VS Code workspace for a Node.js application. The Explorer sidebar on the left shows a file structure with folders like 'data', 'modules', and 'views', and files like '404.html', 'addStudent.html', 'home.html', 'index.js', 'package-lock.json', 'server.js', and 'vercel.json'. The main editor displays the content of 'server.js', which includes a REST client for adding a student, error handling for 404s, and a Vercel deployment configuration. The bottom status bar shows the file path and the current line number.

```

101 // Add Student REST client
102 app.get('/students/add', (req, res) => {
103   // Add Student REST client
104   .then(() => {
105     // Add Student REST client
106     </body>
107     </html>
108   })
109   .catch(err => res.status(500).send(err));
110 });
111
112 // Handle 404 Errors
113 app.use((req, res) => {
114   res.status(404).sendFile(path.join(__dirname, "views", "404.html"));
115 });
116
117 (async () => {
118   try {
119     await colledata
120       .initialize()
121       .then(() => {
122         app.listen(process.env.PORT, () => {
123           console.log("Server listening on port ${process.env.PORT}");
124         });
125       })
126       .catch(err => {
127         console.error("Failed to initialize data: ", err);
128       });
129     console.log("Data initialized successfully");
130   } catch (err) {
131     console.error("Failed to initialize data: ", err);
132   }
133 })();
134
135 // Export app for Vercel
136 module.exports = app;
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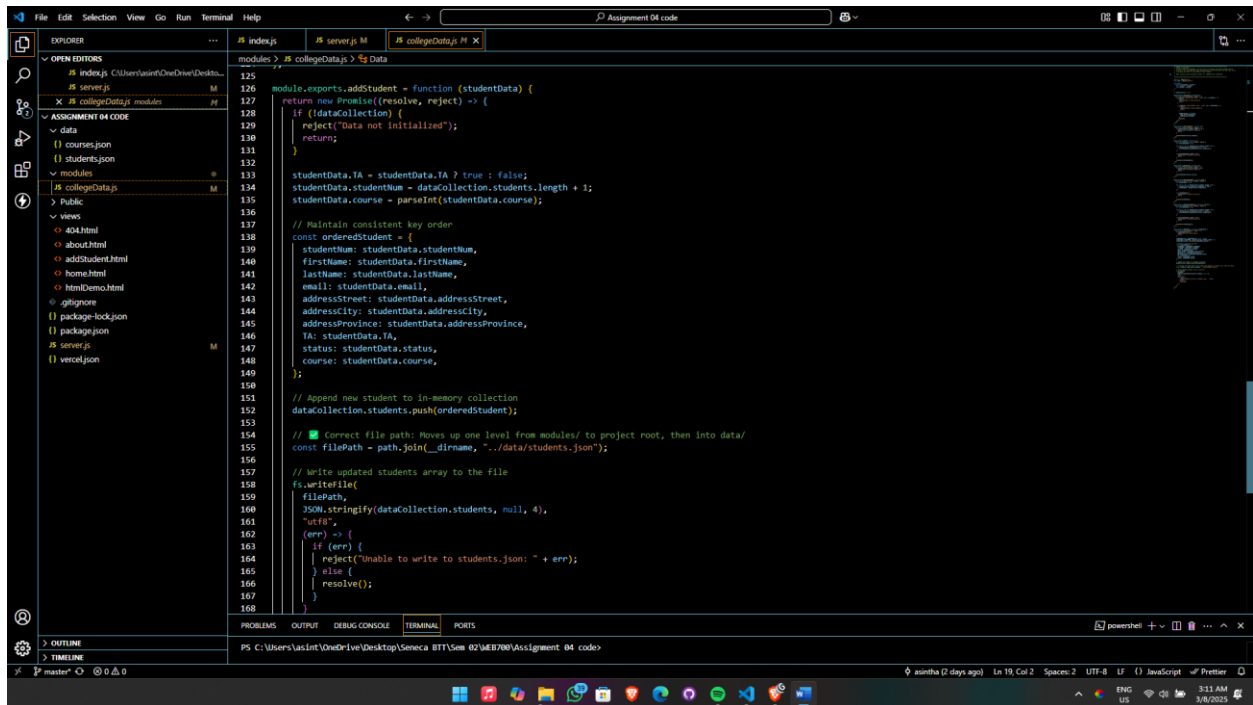
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Figure 3: Server.js 3

The image shows a Visual Studio Code editor window. On the left, the Explorer sidebar displays a project structure. The 'modules' folder is expanded, showing 'collegeData.js' and 'data'. The 'public' folder is also expanded, showing 'views'. The main editor area shows the code for 'collegeData.js'. The code defines a 'Data' class with a constructor and methods for loading courses and students. The code uses 'fs' to read JSON files and 'JSON.parse' to parse the data. The bottom status bar shows the file is 'assignment04 code' and the active language is 'JavaScript'.

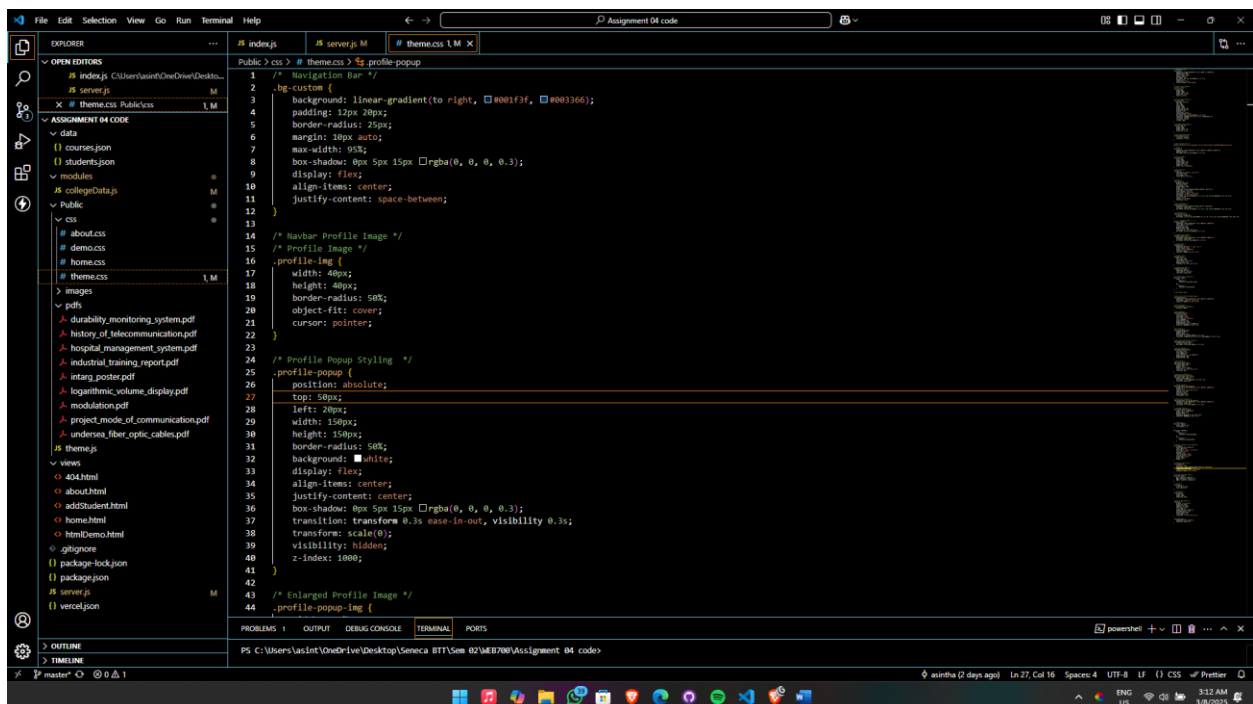
Figure 4: CollegeData.js

WEB700_Assignment4_Asintha Dilshan Jayasekara (170388235)



```
125 module.exports.addStudent = function (studentData) {
126   return new Promise((resolve, reject) => {
127     if (!dataCollection) {
128       reject("Data not initialized");
129       return;
130     }
131     studentData.TA = studentData.TA ? true : false;
132     studentData.studentNum = dataCollection.students.length + 1;
133     studentData.course = parseInt(studentData.course);
134     // Maintain consistent key order
135     const orderedStudent = {
136       studentNum: studentData.studentNum,
137       firstName: studentData.firstName,
138       lastName: studentData.lastName,
139       email: studentData.email,
140       addressStreet: studentData.addressStreet,
141       addressCity: studentData.addressCity,
142       addressProvince: studentData.addressProvince,
143       TA: studentData.TA,
144       status: studentData.status,
145       course: studentData.course,
146     };
147     // Append new student to in-memory collection
148     dataCollection.students.push(orderedStudent);
149     // Correct file path: Moves up one level from modules/ to project root, then into data/
150     const filePath = path.join(__dirname, "../data/students.json");
151     // Write updated students array to the file
152     fs.writeFile(
153       filePath,
154       JSON.stringify(dataCollection.students, null, 4),
155       "utf8",
156       (err) => {
157         if (err) {
158           reject("Unable to write to students.json: " + err);
159         } else {
160           resolve();
161         }
162       }
163     );
164   });
165 }
```

Figure 5: CollegeData.js 2



```
1 /* Navigation Bar */
2 .bg-custom {
3   background: linear-gradient(to right, #0001f3, #000366);
4   padding: 10px 20px;
5   border-radius: 20px;
6   margin: 10px auto;
7   max-width: 95%;
8   box-shadow: 0px 5px 15px #000000;
9   display: flex;
10  align-items: center;
11  justify-content: space-between;
12 }
13
14 /* Navbar Profile Image */
15 /* Profile Image */
16 .profile-img {
17   width: 40px;
18   height: 40px;
19   border-radius: 50%;
20   object-fit: cover;
21   cursor: pointer;
22 }
23
24 /* Profile Popup Styling */
25 .profile-popup {
26   position: absolute;
27   top: 50px;
28   left: 20px;
29   width: 150px;
30   height: 150px;
31   border-radius: 50%;
32   background: #ffffff;
33   display: flex;
34   align-items: center;
35   justify-content: center;
36   box-shadow: 0px 5px 15px #000000;
37   transition: transform 0.3s ease-in-out, visibility 0.3s;
38   transform: scale(0);
39   visibility: hidden;
40   z-index: 1000;
41 }
42
43 /* Enlarged Profile Image */
44 .profile-popup-img {
45   width: 100px;
46   height: 100px;
47   border-radius: 50%;
48   object-fit: cover;
49   cursor: pointer;
50 }
```

Figure 6: theme.css

WEB700_Assignment4_Asintha Dilshan Jayasekara (170388235)

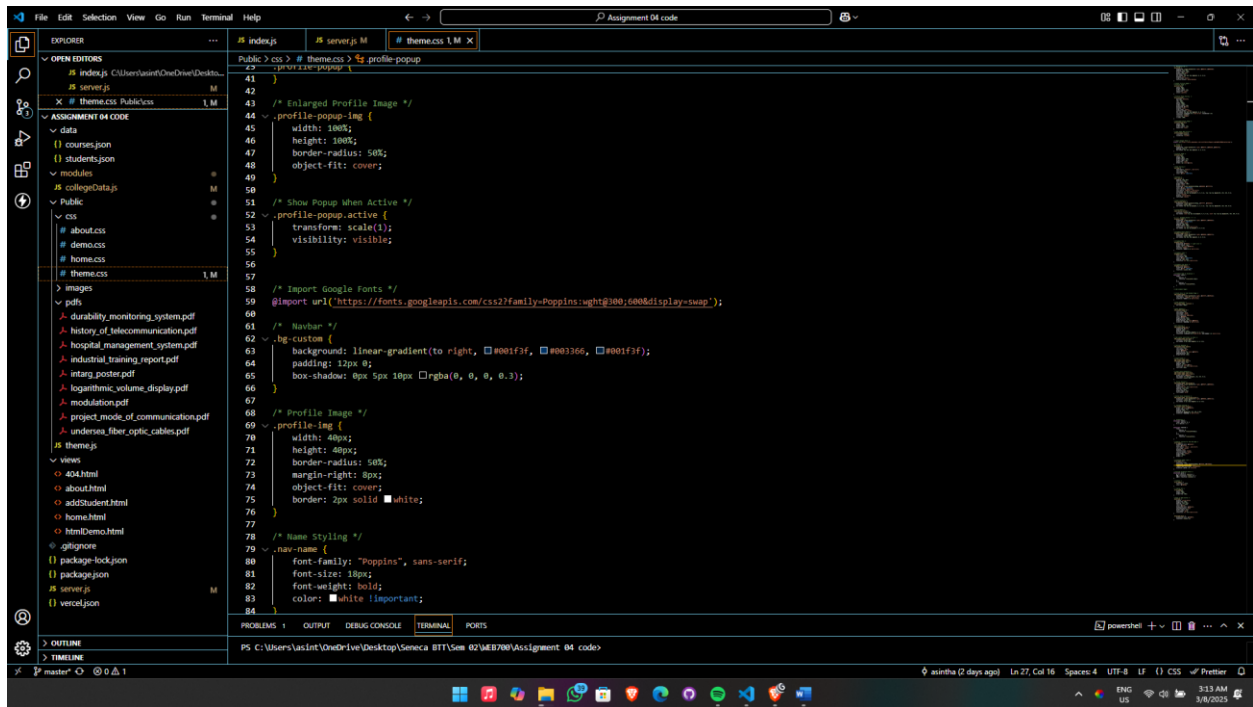


Figure 7: theme.css 2

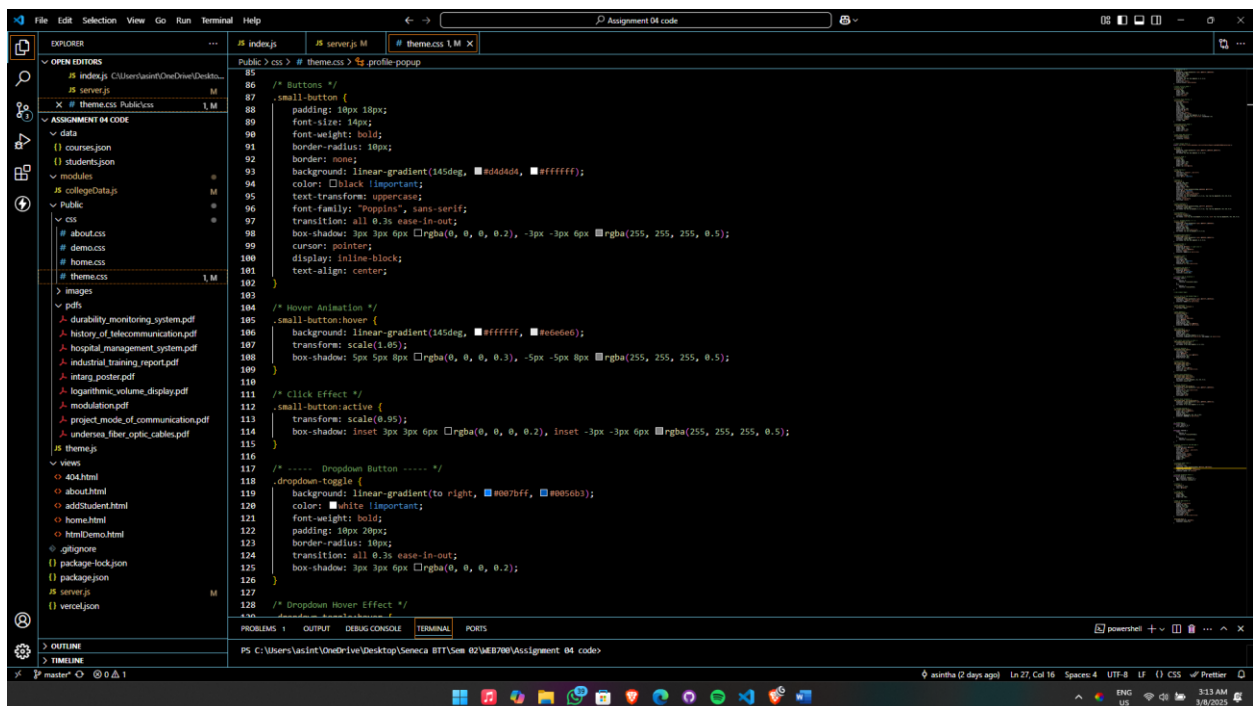


Figure 8: theme.css 3

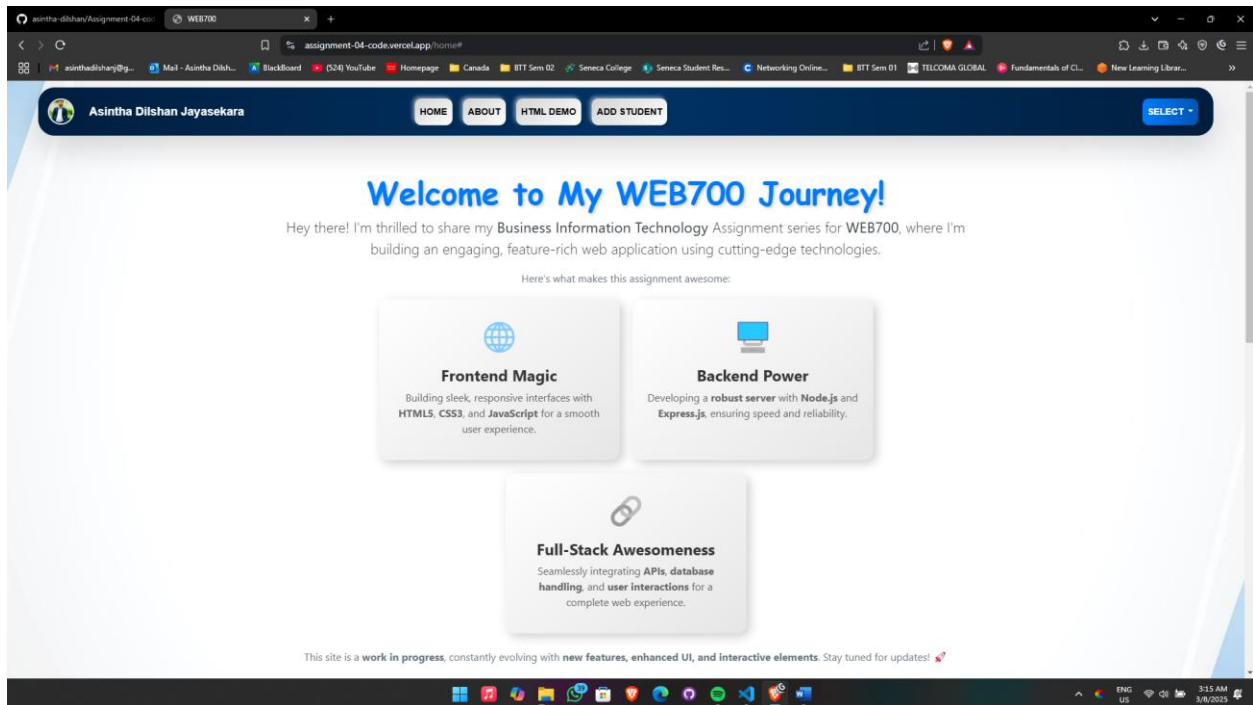


Figure 9: Home page

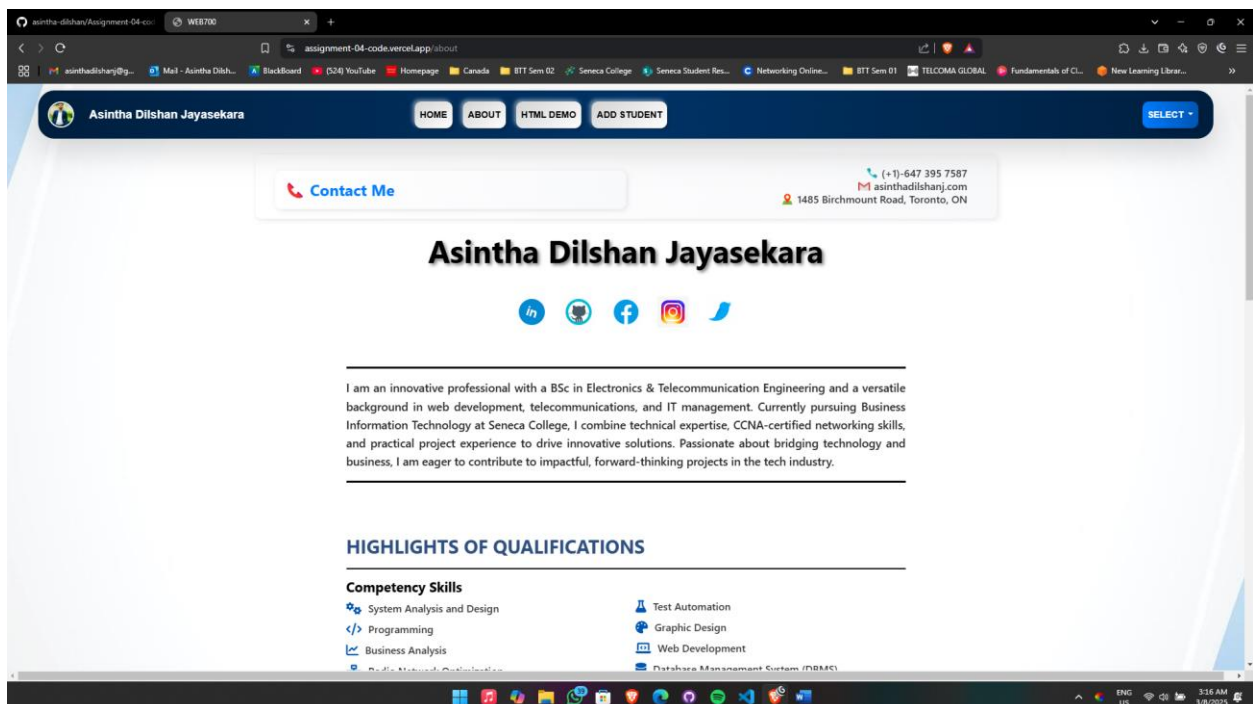


Figure 10: About page

WEB700_Assignment4_Asintha Dilshan Jayasekara (170388235)

The screenshot shows a web browser displaying a page titled "HTML Demo" for Asintha Dilshan Jayasekara. The page features a navigation bar with links for HOME, ABOUT, HTML DEMO, and ADD STUDENT. Below the navigation bar, there is a section titled "PROJECTS & SPECIAL ACHIEVEMENTS" with a sub-header "Explore my major academic projects and achievements during my Bachelor's. Click 'View PDF' to read more!". The main content is a table with three columns: Year, Description, and Source (View PDF). The table lists eight projects from 2017 to 2021, each with a brief description and a "View PDF" button.

Year	Description	Source (View PDF)
2017	Research on Undersea Fiber Optic Cables and their impact on global communication.	View PDF
2017	History of Telecommunication - A deep dive into the evolution of communication.	View PDF
2018	Logarithmic Volume Display - Sound visualization using logarithmic scales.	View PDF
2018	Modulation - Research on various digital signal modulation techniques.	View PDF
2019	Hospital Management System - Web-based platform for patient data handling.	View PDF
2019	Project Mode of Communication - Study on different communication models.	View PDF
2020	Industrial Training Report - Hands-on experience in real-world projects.	View PDF
2021	Durability Monitoring System - A semiconductor industry innovation.	View PDF

Figure 11: HtmlDemo page

The screenshot shows a web browser displaying a page titled "ADD A NEW STUDENT" for Asintha Dilshan Jayasekara. The page features a navigation bar with links for HOME, ABOUT, HTML DEMO, and ADD STUDENT. Below the navigation bar, there is a form titled "ADD A NEW STUDENT" with two main sections: "Personal Information" and "Academic Information". The "Personal Information" section includes fields for First Name, Last Name, Email, Address (Street), Address (City), and Address (Province). The "Academic Information" section includes checkboxes for Teaching Assistant, Enrollment Status (Full Time, Part Time), and a dropdown menu for Enrolled in Course. An "Add Student" button is located at the bottom of the form.

ADD A NEW STUDENT

Personal Information

First Name: Last Name:
Email:
Address (Street): Address (City): Address (Province):
Enrollment Status: ☐ Full Time ☐ Part Time

Academic Information

Enrolled in Course:

Add Student

Figure 12: Add Student page

WEB700_Assignment4_Asintha Dilshan Jayasekara (170388235)

The screenshot shows a web browser window with the URL `assignment-04-code.vercel.app/students/add`. The page has a dark blue header with the user's name 'Asintha Dilshan Jayasekara' and navigation links: HOME, ABOUT, HTML DEMO, and ADD STUDENT. A 'SELECT' button is also present. The main content area is titled 'ADD A NEW STUDENT' and contains a form with two sections:

Personal Information

First Name: Last Name:
Email:
Address (Street): Address (City): Address (Province):
Enter first name Enter last name Enter email Enter street address Enter city Enter province

Academic Information

☐ Teaching Assistant
Enrollment Status:
☐ Full Time ☐ Part Time
Enrolled in Course:

Figure 13: Drop Down page