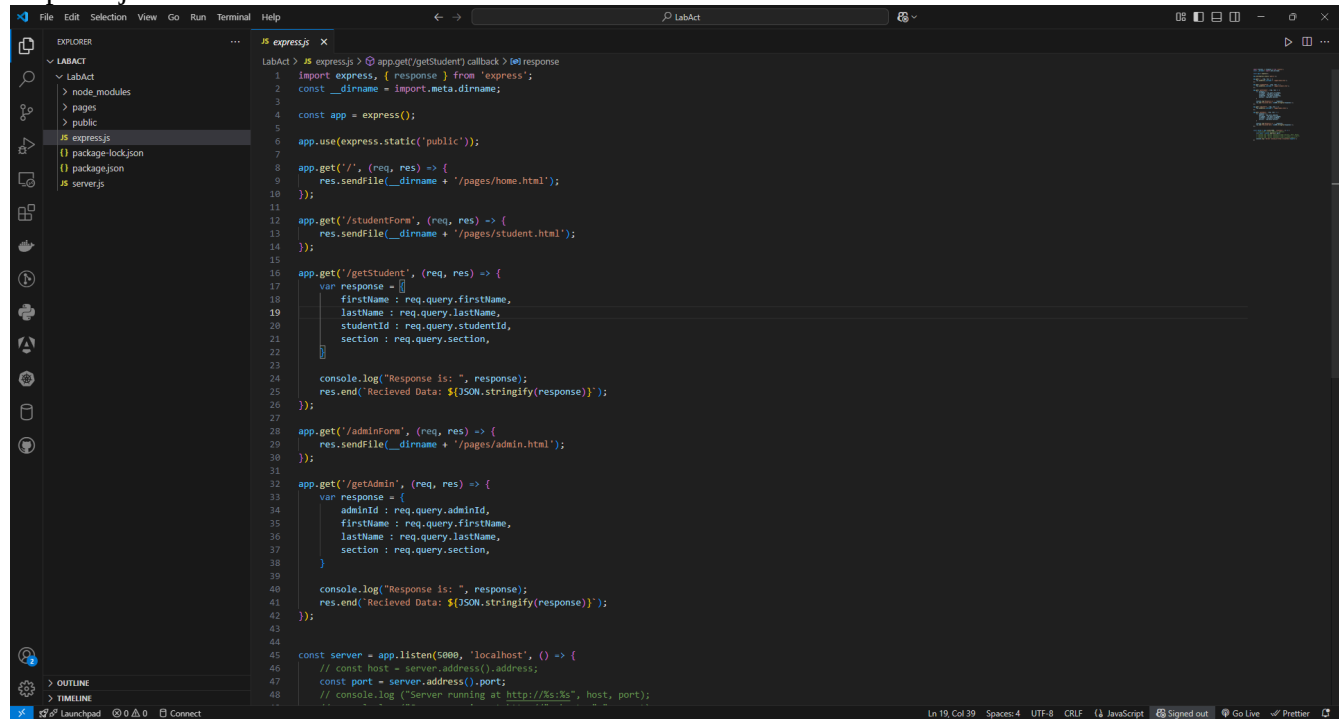


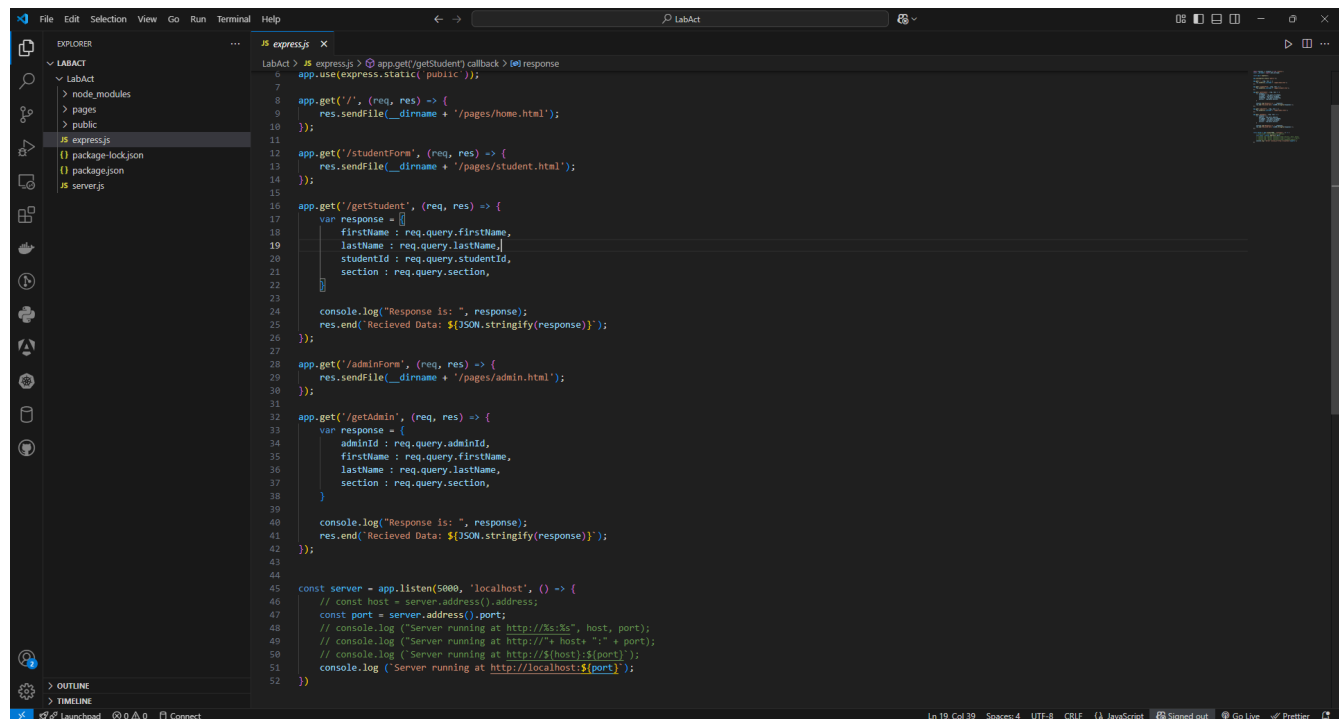
Midterm Lab Activity 1: Basic Routing

Express.js



The screenshot shows a VS Code editor window with the 'LabAct' project open. The Explorer sidebar on the left shows the file structure: 'LabAct' (root), 'node_modules', 'pages', 'public', 'expressjs', 'package-lock.json', 'package.json', and 'server.js'. The main editor area displays the 'expressjs' file, which contains the following code:

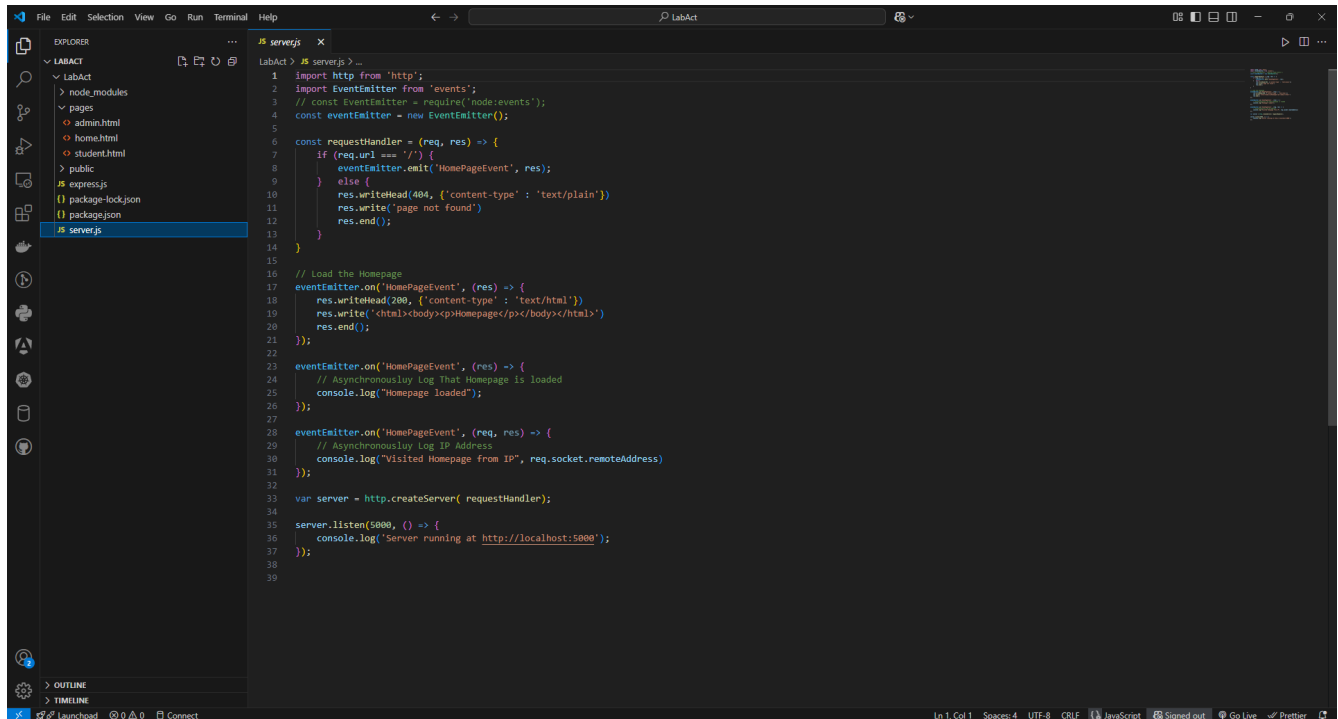
```
LabAct > $ expressjs > @ app.get('/getStudent') callback > @ response
1 import express, { response } from 'express';
2 const __dirname = import.meta.dirname;
3
4 const app = express();
5
6 app.use(express.static('public'));
7
8 app.get('/', (req, res) => {
9   res.sendFile(__dirname + '/pages/home.html');
10 });
11
12 app.get('/studentForm', (req, res) => {
13   res.sendFile(__dirname + '/pages/student.html');
14 });
15
16 app.get('/getStudent', (req, res) => {
17   var response = {
18     firstName: req.query.firstName,
19     lastName: req.query.lastName,
20     studentId: req.query.studentId,
21     section: req.query.section,
22   };
23
24   console.log("Response is: ", response);
25   res.end("Recieved Data: ${JSON.stringify(response)}");
26 });
27
28 app.get('/adminForm', (req, res) => {
29   res.sendFile(__dirname + '/pages/admin.html');
30 });
31
32 app.get('/getAdmin', (req, res) => {
33   var response = {
34     adminId: req.query.adminId,
35     firstName: req.query.firstName,
36     lastName: req.query.lastName,
37     section: req.query.section,
38   };
39
40   console.log("Response is: ", response);
41   res.end("Recieved Data: ${JSON.stringify(response)}");
42 });
43
44
45 const server = app.listen(5000, 'localhost', () => {
46   // const host = server.address().address;
47   const port = server.address().port;
48   // console.log ("Server running at http://$s:$s", host, port);
49 });
```



The screenshot shows the same VS Code editor window with the 'LabAct' project. The Explorer sidebar is the same. The main editor area displays the 'expressjs' file, which contains the following code:

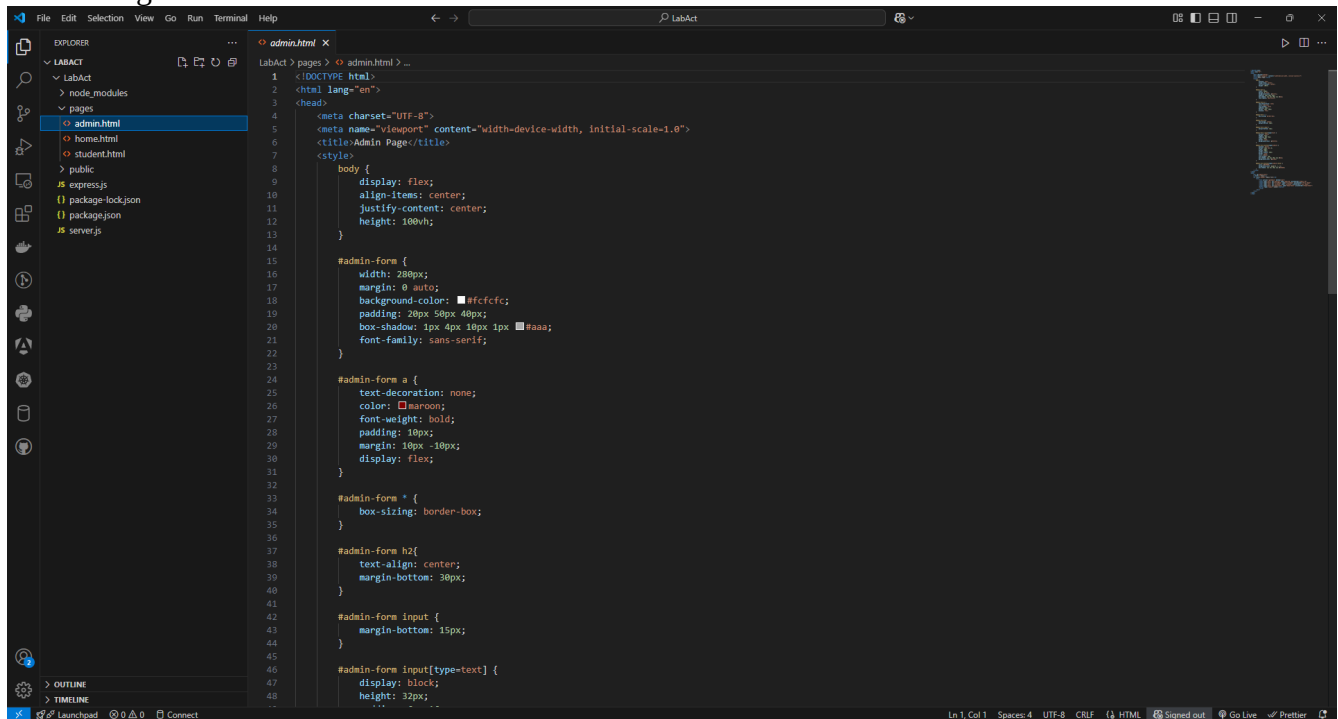
```
LabAct > $ expressjs > @ app.get('/getStudent') callback > @ response
6 app.use(express.static('public'));
7
8 app.get('/', (req, res) => {
9   res.sendFile(__dirname + '/pages/home.html');
10 });
11
12 app.get('/studentForm', (req, res) => {
13   res.sendFile(__dirname + '/pages/student.html');
14 });
15
16 app.get('/getStudent', (req, res) => {
17   var response = {
18     firstName: req.query.firstName,
19     lastName: req.query.lastName,
20     studentId: req.query.studentId,
21     section: req.query.section,
22   };
23
24   console.log("Response is: ", response);
25   res.end("Recieved Data: ${JSON.stringify(response)}");
26 });
27
28 app.get('/adminForm', (req, res) => {
29   res.sendFile(__dirname + '/pages/admin.html');
30 });
31
32 app.get('/getAdmin', (req, res) => {
33   var response = {
34     adminId: req.query.adminId,
35     firstName: req.query.firstName,
36     lastName: req.query.lastName,
37     section: req.query.section,
38   };
39
40   console.log("Response is: ", response);
41   res.end("Recieved Data: ${JSON.stringify(response)}");
42 });
43
44
45 const server = app.listen(5000, 'localhost', () => {
46   // const host = server.address().address;
47   const port = server.address().port;
48   // console.log ("Server running at http://$s:$s", host, port);
49   // console.log ("Server running at http://"+ host+ ":" + port);
50   // console.log ("Server running at http://$(host):$(port)");
51   console.log ("Server running at http://localhost:${port}");
52 });
```

Server.js



```
1 import http from 'http';
2 import EventEmitter from 'events';
3 // const EventEmitter = require('node:events');
4 const eventEmitter = new EventEmitter();
5
6 const requestHandler = (req, res) => {
7   if (req.url === '/') {
8     eventEmitter.emit('HomePageEvent', res);
9   } else {
10    res.writeHead(404, {'content-type': 'text/plain'});
11    res.write('page not found');
12    res.end();
13  }
14 }
15
16 // Load the Homepage
17 eventEmitter.on('HomePageEvent', (res) => {
18   res.writeHead(200, {'content-type': 'text/html'});
19   res.write('<html><body><p>Homepage</p></body></html>');
20   res.end();
21 });
22
23 eventEmitter.on('HomePageEvent', (res) => {
24   // Asynchronous Log That Homepage is loaded
25   console.log("Homepage loaded");
26 });
27
28 eventEmitter.on('HomePageEvent', (req, res) => {
29   // Asynchronous Log IP Address
30   console.log("Visited Homepage from IP", req.socket.remoteAddress);
31 });
32
33 var server = http.createServer( requestHandler);
34
35 server.listen(5000, () => {
36   console.log('Server running at http://localhost:5000');
37 });
38
39
```

Admin Page



```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Admin Page</title>
7   <style>
8     body {
9       display: flex;
10      align-items: center;
11      justify-content: center;
12      height: 100vh;
13    }
14
15    #admin-form {
16      width: 280px;
17      margin: 0 auto;
18      background-color: #f0f0f0;
19      padding: 20px 50px 40px;
20      box-shadow: 1px 4px 10px 1px #aaa;
21      font-family: sans-serif;
22    }
23
24    #admin-form a {
25      text-decoration: none;
26      color: #800000;
27      font-weight: bold;
28      padding: 10px;
29      margin: 10px 10px;
30      display: flex;
31    }
32
33    #admin-form * {
34      box-sizing: border-box;
35    }
36
37    #admin-form h2{
38      text-align: center;
39      margin-bottom: 30px;
40    }
41
42    #admin-form input {
43      margin-bottom: 15px;
44    }
45
46    #admin-form input[type="text"] {
47      display: block;
48      height: 32px;
49    }
50  </style>
51 </head>
52 <body>
53   <h2>Admin Page</h2>
54   <div>
55     <input type="text">
56     <input type="password">
57     <input type="submit" value="Login">
58   </div>
59 </body>
60 </html>
```

The screenshot shows the VS Code editor interface with the LABACT project open. The Explorer sidebar on the left shows the file structure: LABACT > pages > admin.html. The main editor area displays the content of admin.html, which is an HTML file with CSS styles. The code includes a DOCTYPE declaration, a meta charset of UTF-8, a viewport meta tag, and a title 'Admin Page'. The CSS styles are defined in a <style> block and include a body style with flexbox properties, a #admin-form style with width, margin, background-color, padding, box-shadow, and font-family, a #admin-form a style with text-decoration, color, font-weight, padding, margin, and display, a #admin-form * style with box-sizing, and a #admin-form h2 style with text-align and margin-bottom. There are also styles for #admin-form input and #admin-form input[type=text].

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Admin Page</title>
7   <style>
8     body {
9       display: flex;
10      align-items: center;
11      justify-content: center;
12      height: 100vh;
13    }
14
15    #admin-form {
16      width: 280px;
17      margin: 0 auto;
18      background-color: #f0f0f0;
19      padding: 20px 50px 40px;
20      box-shadow: 1px 4px 10px 1px #aaa;
21      font-family: sans-serif;
22    }
23
24    #admin-form a {
25      text-decoration: none;
26      color: #a52a2a;
27      font-weight: bold;
28      padding: 10px;
29      margin: 10px 10px;
30      display: flex;
31    }
32
33    #admin-form * {
34      box-sizing: border-box;
35    }
36
37    #admin-form h2 {
38      text-align: center;
39      margin-bottom: 30px;
40    }
41
42    #admin-form input {
43      margin-bottom: 15px;
44    }
45
46    #admin-form input[type=text] {
47      display: block;
48      height: 32px;
```

Home Page

The screenshot shows the VS Code editor interface with the LABACT project open. The Explorer sidebar on the left shows the file structure: LABACT > pages > home.html. The main editor area displays the content of home.html, which is an HTML file with CSS styles. The code includes a DOCTYPE declaration, a meta charset of UTF-8, a viewport meta tag, and a title 'Homepage'. The CSS styles are defined in a <style> block and include a body style with flexbox properties, a .homepage style with width, margin, background-color, padding, box-shadow, and font-family, a .homepage h1 style with text-align and margin-bottom, a .buttons style with display and margin, and a .buttons a style with display, margin, width, padding, border-radius, border, color, font-weight, box-shadow, background-color, text-align, align-items, and text-decoration.

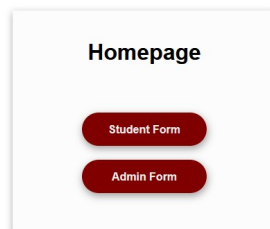
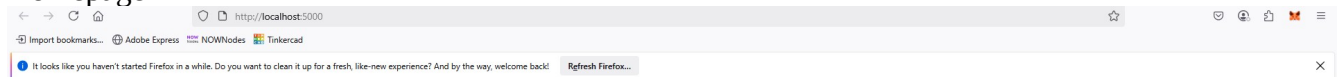
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Homepage</title>
7   <style>
8     body {
9       display: flex;
10      align-items: center;
11      justify-content: center;
12      height: 100vh;
13    }
14
15    .homepage {
16      width: 280px;
17      margin: 0 auto;
18      background-color: #f0f0f0;
19      padding: 20px 50px 40px;
20      box-shadow: 1px 4px 10px 1px #aaa;
21      font-family: sans-serif;
22    }
23
24    .homepage h1 {
25      text-align: center;
26      margin-bottom: 30px;
27    }
28
29    .buttons {
30      display: inline;
31      margin: 10px;
32    }
33
34    .buttons a {
35      display: block;
36      margin: 20px auto 0;
37      width: 150px;
38      padding: 15px;
39      border-radius: 25px;
40      border: none;
41      color: #a52a2a;
42      font-weight: 700;
43      box-shadow: 1px 4px 10px 1px #aaa;
44      background-color: #a52a2a;
45      text-align: center;
46      align-items: center;
47      text-decoration: none;
```

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Homepage</title>
8   <style>
9     body {
10       display: flex;
11       align-items: center;
12       justify-content: center;
13       height: 100vh;
14     }
15
16     .homepage {
17       width: 280px;
18       margin: 0 auto;
19       background-color: #f0f0f0;
20       padding: 20px 50px 40px;
21       box-shadow: 1px 4px 10px 1px #aaa;
22       font-family: sans-serif;
23     }
24
25     .homepage h1 {
26       text-align: center;
27       margin-bottom: 30px;
28     }
29
30     .buttons {
31       display: inline;
32       margin: 10px;
33     }
34
35     .buttons a {
36       display: block;
37       margin: 20px auto 0;
38       width: 150px;
39       padding: 15px;
40       border-radius: 25px;
41       border: none;
42       color: #eee;
43       font-weight: 700;
44       box-shadow: 1px 4px 10px 1px #aaa;
45       background-color: #maroon;
46       text-align: center;
47       align-items: center;
48       text-decoration: none;
```

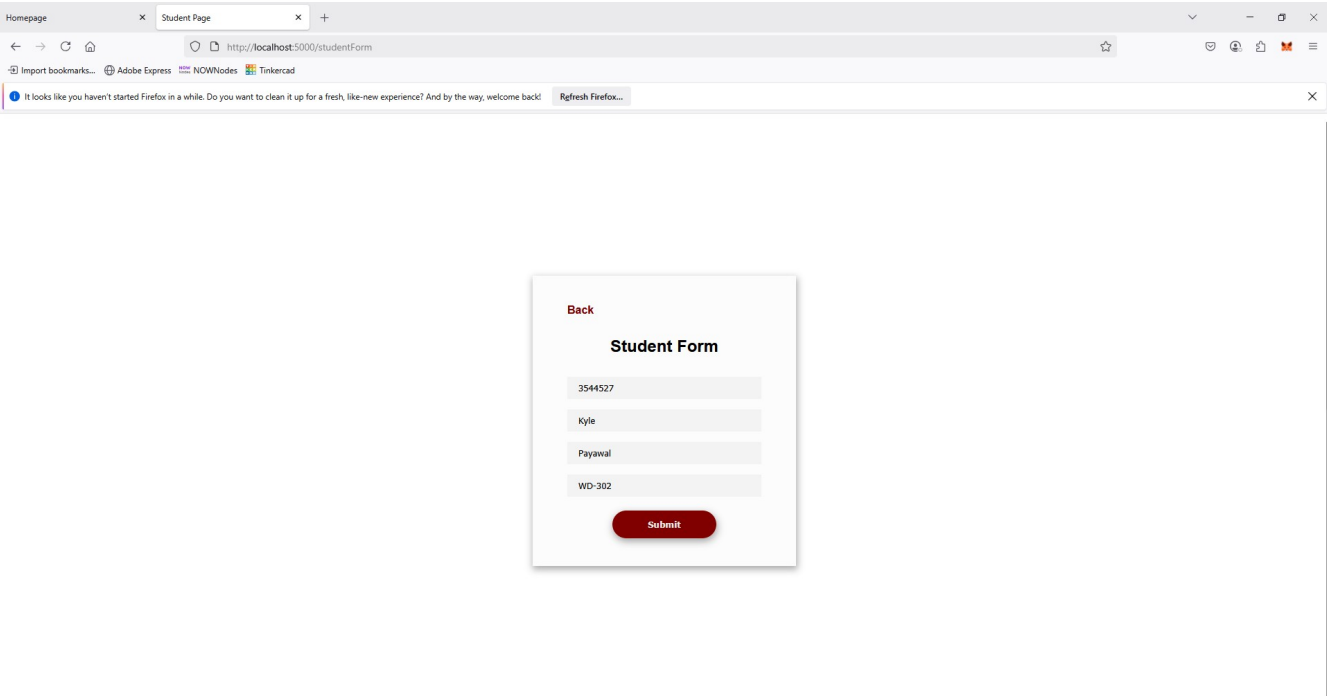
Student Page

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4
5   <meta charset="UTF-8">
6   <meta name="viewport" content="width=device-width, initial-scale=1.0">
7   <title>Student Page</title>
8   <style>
9     body {
10       display: flex;
11       align-items: center;
12       justify-content: center;
13       height: 100vh;
14     }
15
16     #student-form {
17       width: 280px;
18       margin: 0 auto;
19       background-color: #f0f0f0;
20       padding: 20px 50px 40px;
21       box-shadow: 1px 4px 10px 1px #aaa;
22       font-family: sans-serif;
23     }
24
25     #student-form a {
26       text-decoration: none;
27       color: #maroon;
28       font-weight: bold;
29       padding: 10px;
30       margin: 10px -10px;
31       display: flex;
32     }
33
34     #student-form * {
35       box-sizing: border-box;
36     }
37
38     #student-form h2{
39       text-align: center;
40       margin-bottom: 30px;
41     }
42
43     #student-form input {
44       margin-bottom: 15px;
45     }
46
47     #student-form input[type=text] {
48       display: block;
49       height: 32px;
```

Output:

[Homepage](#)

Student Page

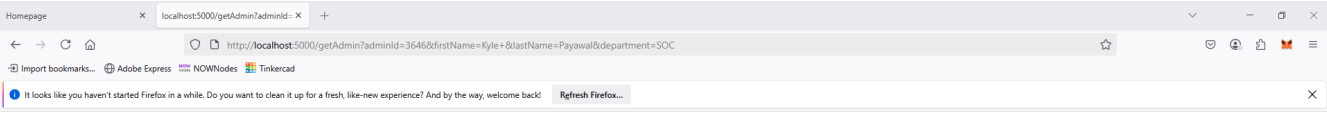


Admin Page



[Back](#)

Admin Form



Recieved Data: {"adminId":"3646","firstName":"Kyle ","lastName":"Payawal"}