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670233

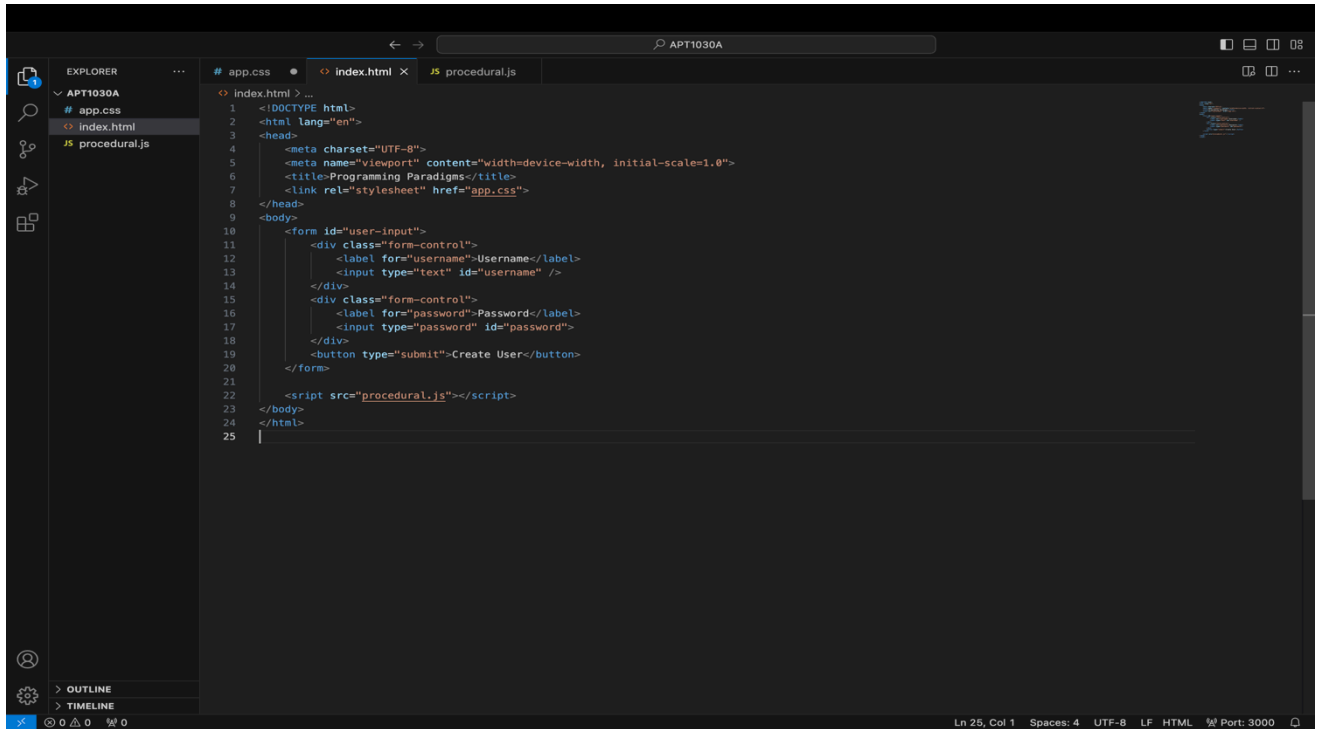
APT1030B

Assignment

20/05/2024

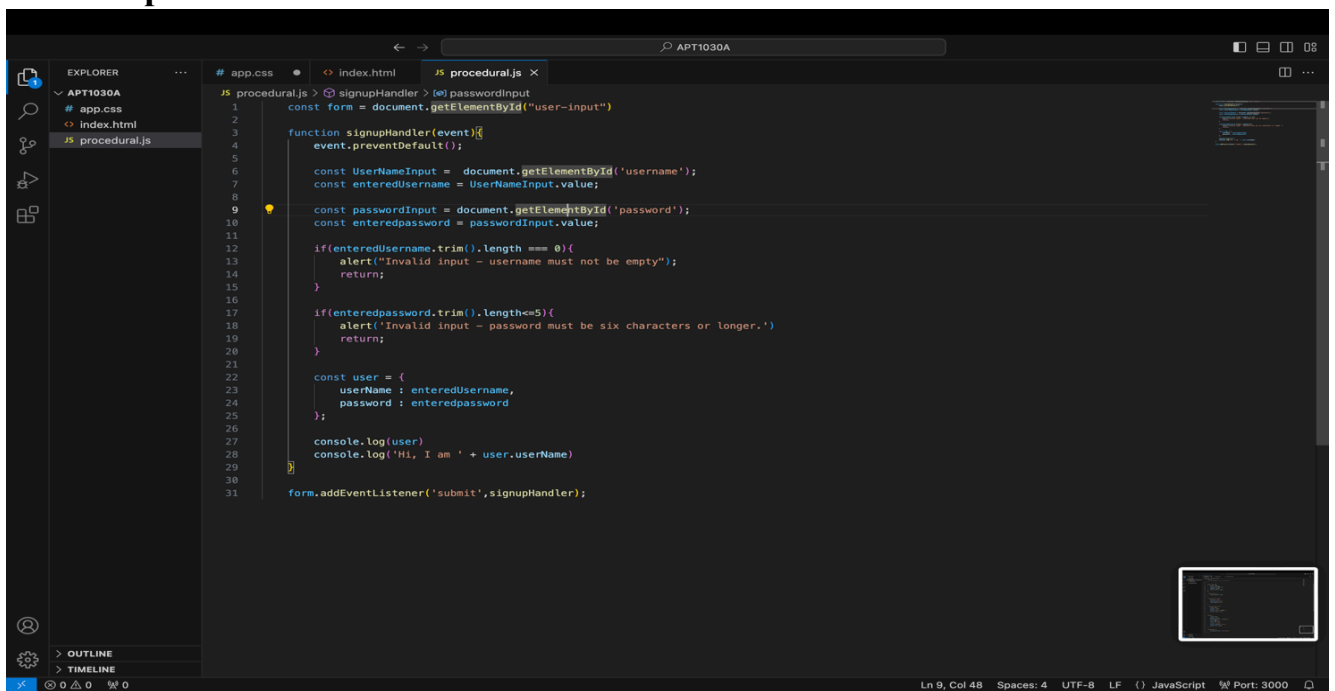
Procedural Programming

Html



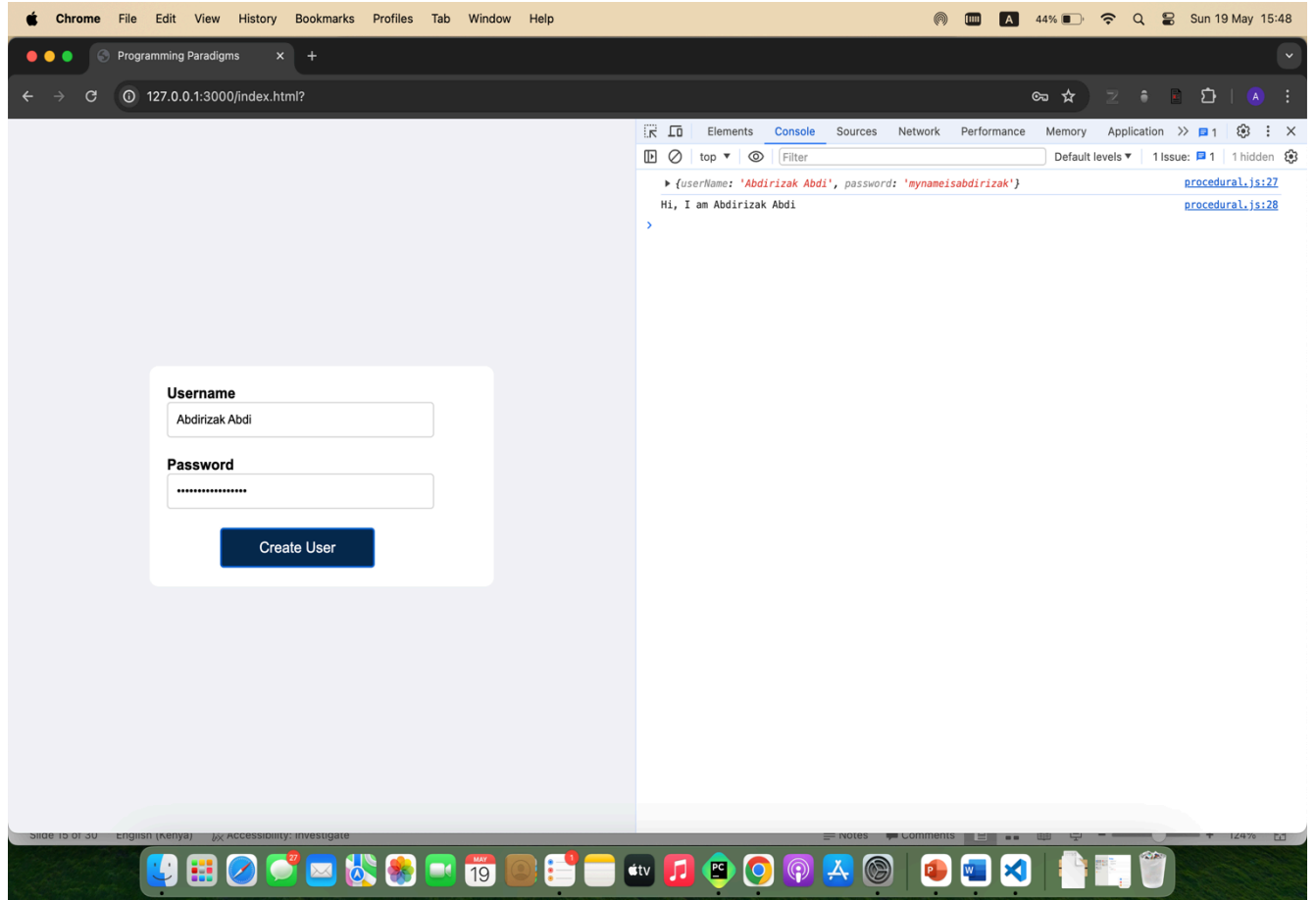
```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>Programming Paradigms</title>
7   <link rel="stylesheet" href="app.css">
8 </head>
9 <body>
10  <form id="user-input">
11    <div class="form-control">
12      <label for="username">Username</label>
13      <input type="text" id="username" />
14    </div>
15    <div class="form-control">
16      <label for="password">Password</label>
17      <input type="password" id="password">
18    </div>
19    <button type="submit">Create User</button>
20  </form>
21  <script src="procedural.js"></script>
22 </body>
23 </html>
```

Java script



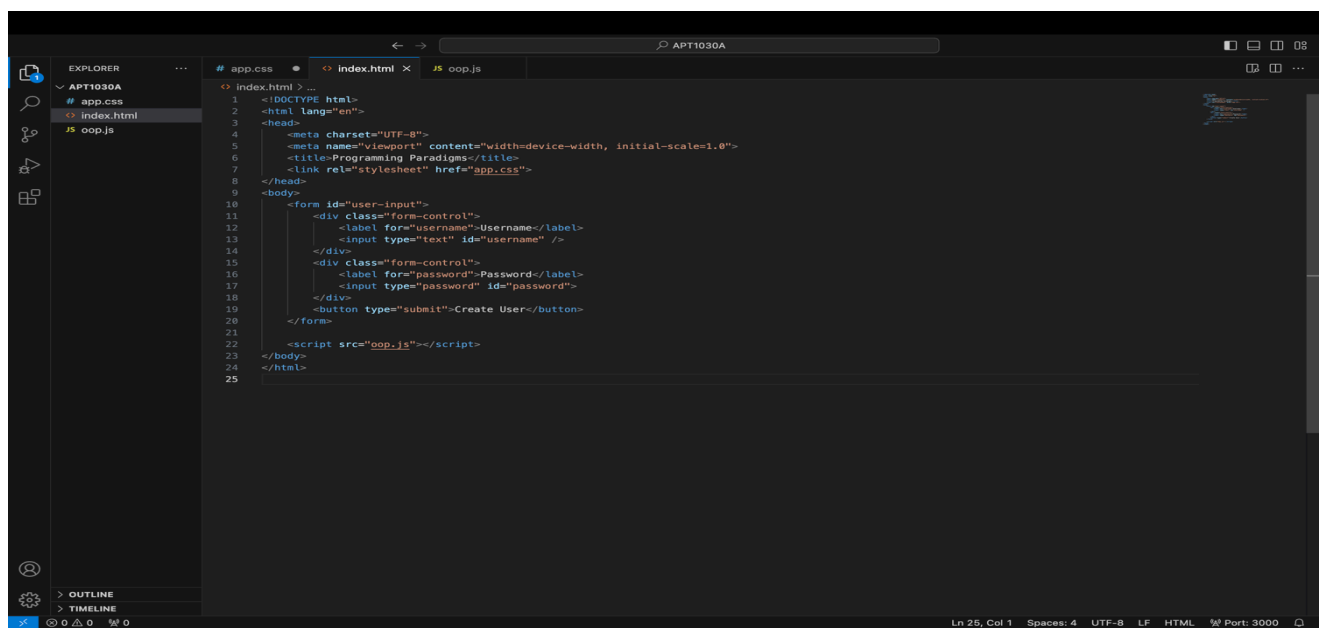
```
1 const form = document.getElementById("user-input")
2
3 function signupHandler(event) {
4   event.preventDefault();
5
6   const UsernameInput = document.getElementById('username');
7   const enteredUsername = UsernameInput.value;
8
9   const passwordInput = document.getElementById('password');
10  const enteredpassword = passwordInput.value;
11
12  if(enteredUsername.trim().length === 0){
13    alert("Invalid input - username must not be empty");
14    return;
15  }
16
17  if(enteredpassword.trim().length <= 5){
18    alert("Invalid input - password must be six characters or longer.");
19    return;
20  }
21
22  const user = {
23    userName : enteredUsername,
24    password : enteredpassword
25  };
26
27  console.log(user)
28  console.log('Hi, I am ' + user.userName)
29
30  form.addEventListener('submit', signupHandler);
31 }
```

Console Output

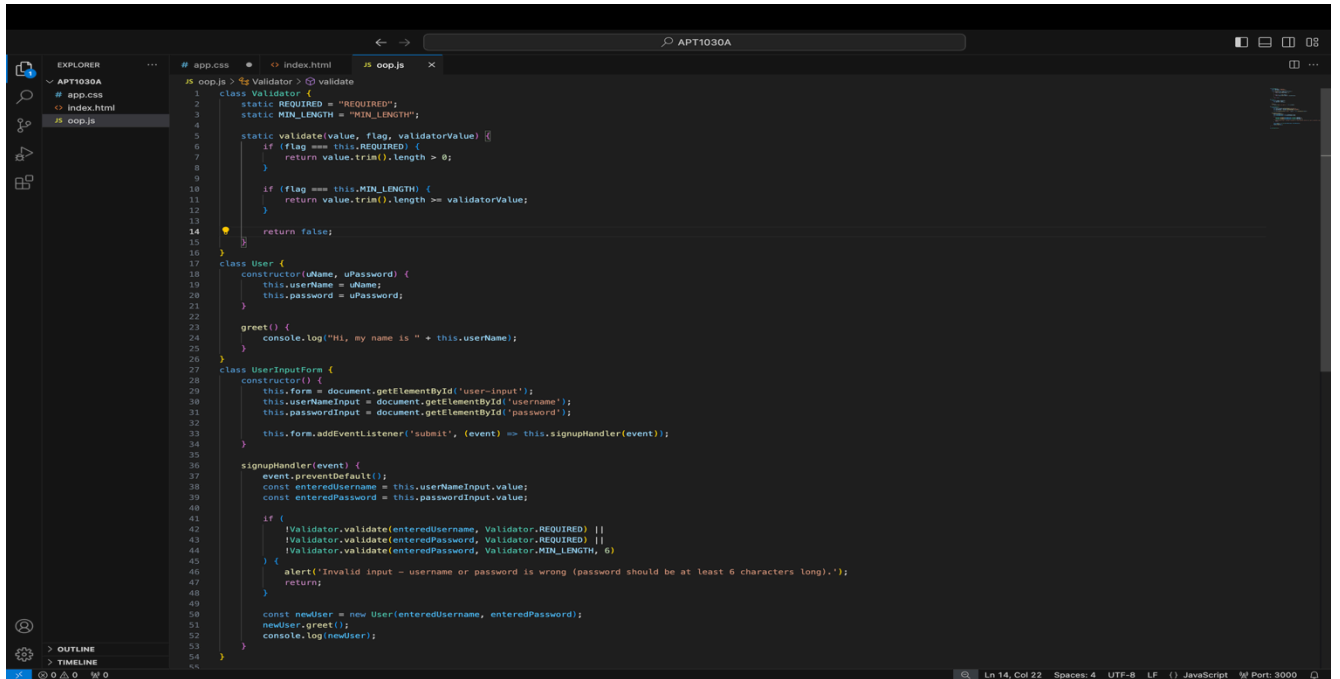


Object oriented programming

Html

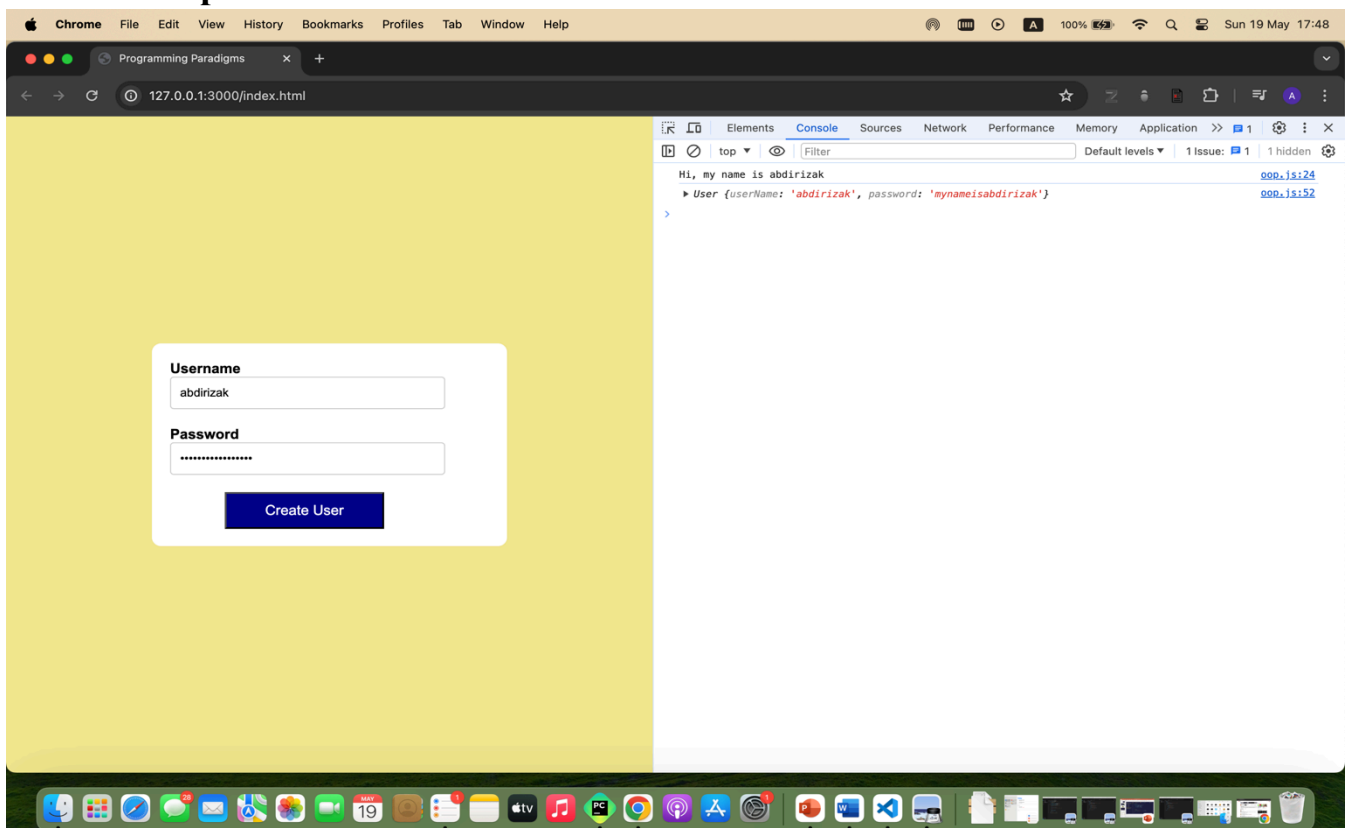


Java script



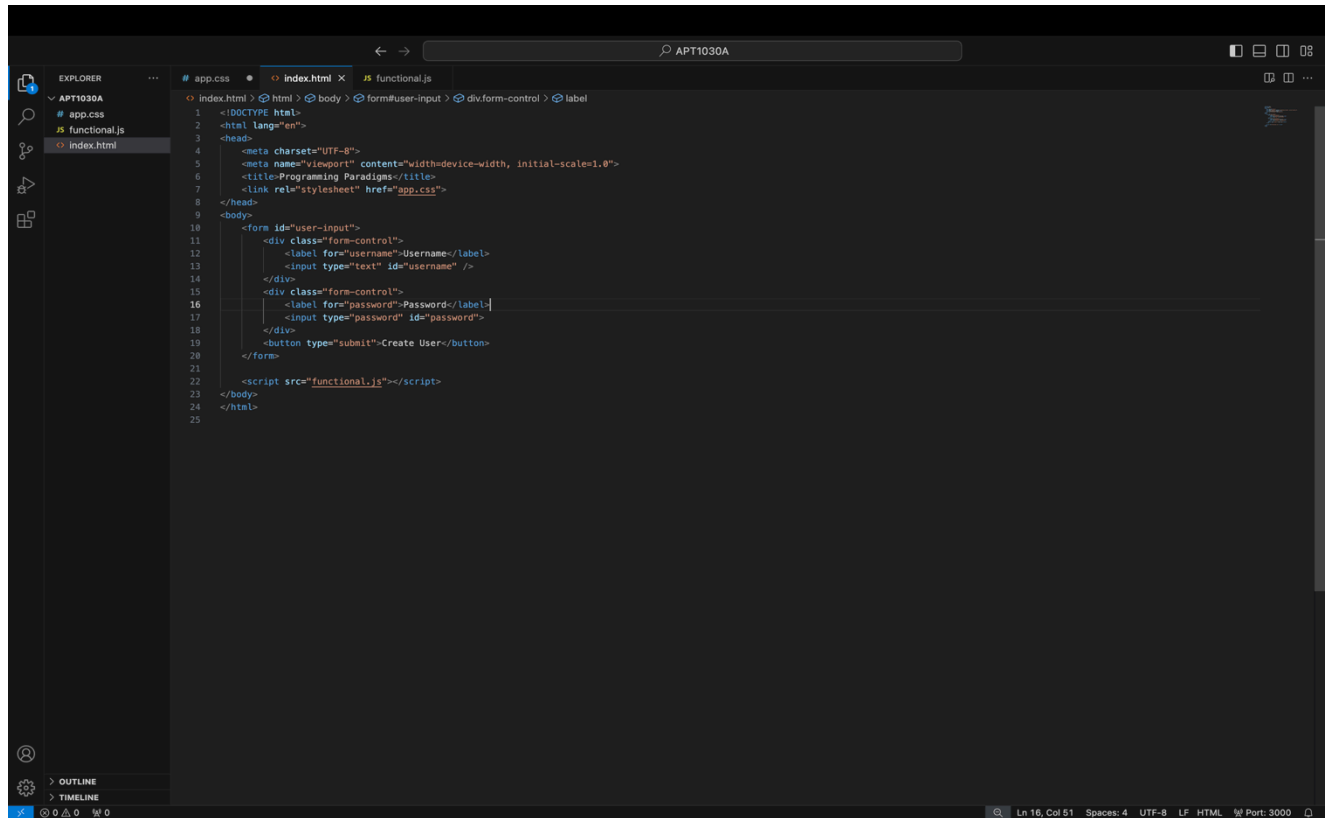
```
1 class Validator {
2   static REQUIRED = "REQUIRED";
3   static MIN_LENGTH = "MIN_LENGTH";
4
5   static validate(value, flag, validatorValue) {
6     if (flag === this.REQUIRED) {
7       return value.trim().length > 0;
8     }
9
10    if (flag === this.MIN_LENGTH) {
11      return value.trim().length >= validatorValue;
12    }
13  }
14  return false;
15 }
16
17 class User {
18   constructor(uname, uPassword) {
19     this.userName = uname;
20     this.password = uPassword;
21   }
22
23   greet() {
24     console.log("Hi, my name is " + this.userName);
25   }
26 }
27
28 class UserInputForm {
29   constructor() {
30     this.form = document.getElementById('user-input');
31     this.userNameInput = document.getElementById('username');
32     this.passwordInput = document.getElementById('password');
33
34     this.form.addEventListener('submit', (event) => this.signupHandler(event));
35   }
36
37   signupHandler(event) {
38     event.preventDefault();
39     const enteredUsername = this.userNameInput.value;
40     const enteredPassword = this.passwordInput.value;
41
42     if (
43       !Validator.validate(enteredUsername, Validator.REQUIRED) ||
44       !Validator.validate(enteredPassword, Validator.REQUIRED) ||
45       !Validator.validate(enteredPassword, Validator.MIN_LENGTH, 6)
46     ) {
47       alert('Invalid input - username or password is wrong (password should be at least 6 characters long).');
48       return;
49     }
50
51     const newUser = new User(enteredUsername, enteredPassword);
52     newUser.greet();
53     console.log(newUser);
54   }
55 }
```

Console Output



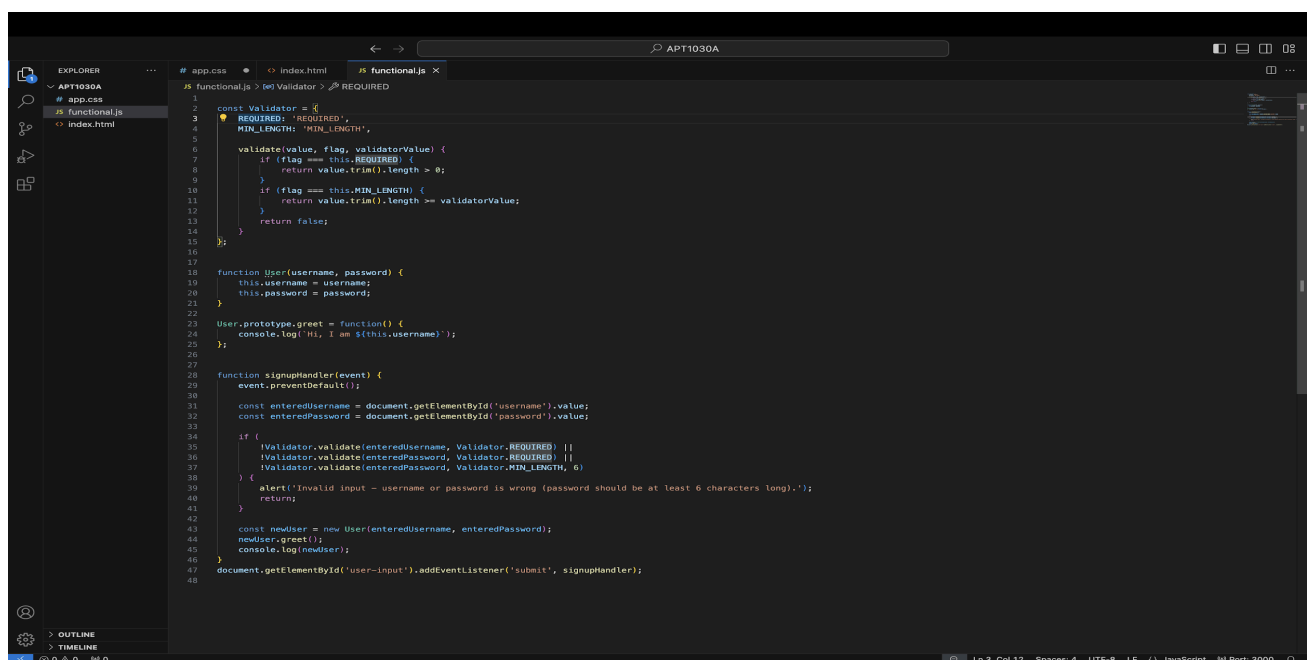
Functional programming

Html



```
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>Programming Paradigms</title>
7   <link rel="stylesheet" href="app.css">
8 </head>
9 <body>
10   <form id="user-input">
11     <div class="form-control">
12       <label form="username">Username</label>
13       <input type="text" id="username" />
14     </div>
15     <div class="form-control">
16       <label form="password">Password</label>
17       <input type="password" id="password">
18     </div>
19     <button type="submit">Create User</button>
20   </form>
21
22   <script src="functional.js"></script>
23 </body>
24 </html>
25
```

Java script



```
1
2
3 const Validator = {
4   REQUIRED: 'REQUIRED',
5   MIN_LENGTH: 'MIN_LENGTH',
6
7   validate(value, flag, validatorValue) {
8     if (flag === this.REQUIRED) {
9       return value.trim().length > 0;
10     }
11     if (flag === this.MIN_LENGTH) {
12       return value.trim().length >= validatorValue;
13     }
14     return false;
15   }
16
17 }
18
19 function User(username, password) {
20   this.username = username;
21   this.password = password;
22 }
23
24 User.prototype.greet = function() {
25   console.log(`Hi, I am ${this.username}`);
26 };
27
28 function signupHandler(event) {
29   event.preventDefault();
30
31   const enteredUsername = document.getElementById('username').value;
32   const enteredPassword = document.getElementById('password').value;
33
34   if (
35     !Validator.validate(enteredUsername, Validator.REQUIRED) ||
36     !Validator.validate(enteredPassword, Validator.REQUIRED) ||
37     !Validator.validate(enteredPassword, Validator.MIN_LENGTH, 6)
38   ) {
39     alert('Invalid input - username or password is wrong (password should be at least 6 characters long).');
40     return;
41   }
42
43   const newUser = new User(enteredUsername, enteredPassword);
44   newUser.greet();
45   console.log(newUser);
46
47   document.getElementById('user-input').addEventListener('submit', signupHandler);
48 }

```

Console output

