

Build a Strong MERN Foundation



Online Banking Web Application



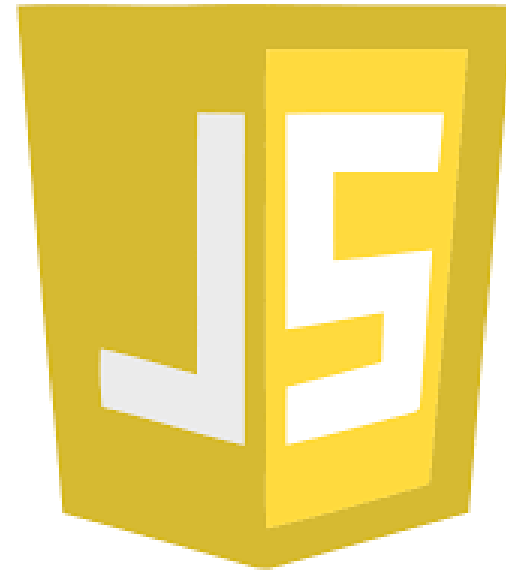


Adding Dynamic Functionality Using JavaScript

You Already Know

Before we begin, let's recall what we have covered till now:

JavaScript



Recap

JavaScript

JavaScript is a high-level, interpreted programming language that is primarily used to enhance interactivity on web pages. It enables dynamic content and user interaction by allowing the manipulation of webpage elements in response to user actions.



A Day in the Life of a MERN Stack Developer

The designing of the static web page is done using HTML and CSS.

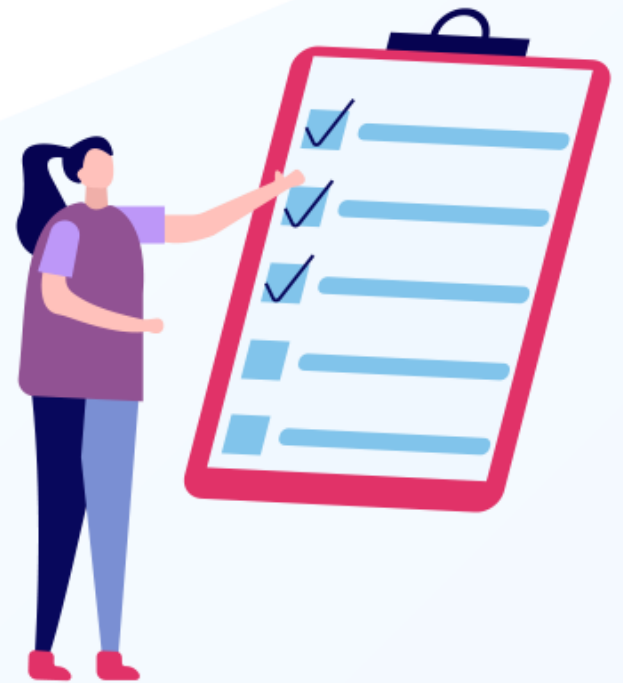
The next step is to add dynamic behavior to the web page using JavaScript. It will be used to create the user interface, server-side and client-side processing, database interaction, and responsive design.



Learning Objectives

By the end of this lesson, you will be able to:

- 🕒 Identify key JavaScript functions and syntax used in dynamic web development
- 🕒 Implement JavaScript to create interactive features in a banking web application
- 🕒 Investigate JavaScript code to identify and solve issues related to website performance and user interaction
- 🕒 Develop a comprehensive and dynamic banking web application using JavaScript





Task: Integrate JavaScript for Dynamic Behavior

Create a JavaScript File for Login Functionalities

Create a JavaScript file for the following admin login functionalities:

- The admin credentials are hard-coded and checked on the client side using JavaScript.
- If the credentials are correct, the admin is redirected to the home page.
- If the credentials are incorrect, an error message is displayed.
- The admin can view all account details, which are stored in an array as dummy data.
- The admin has the option to log out of the web page.

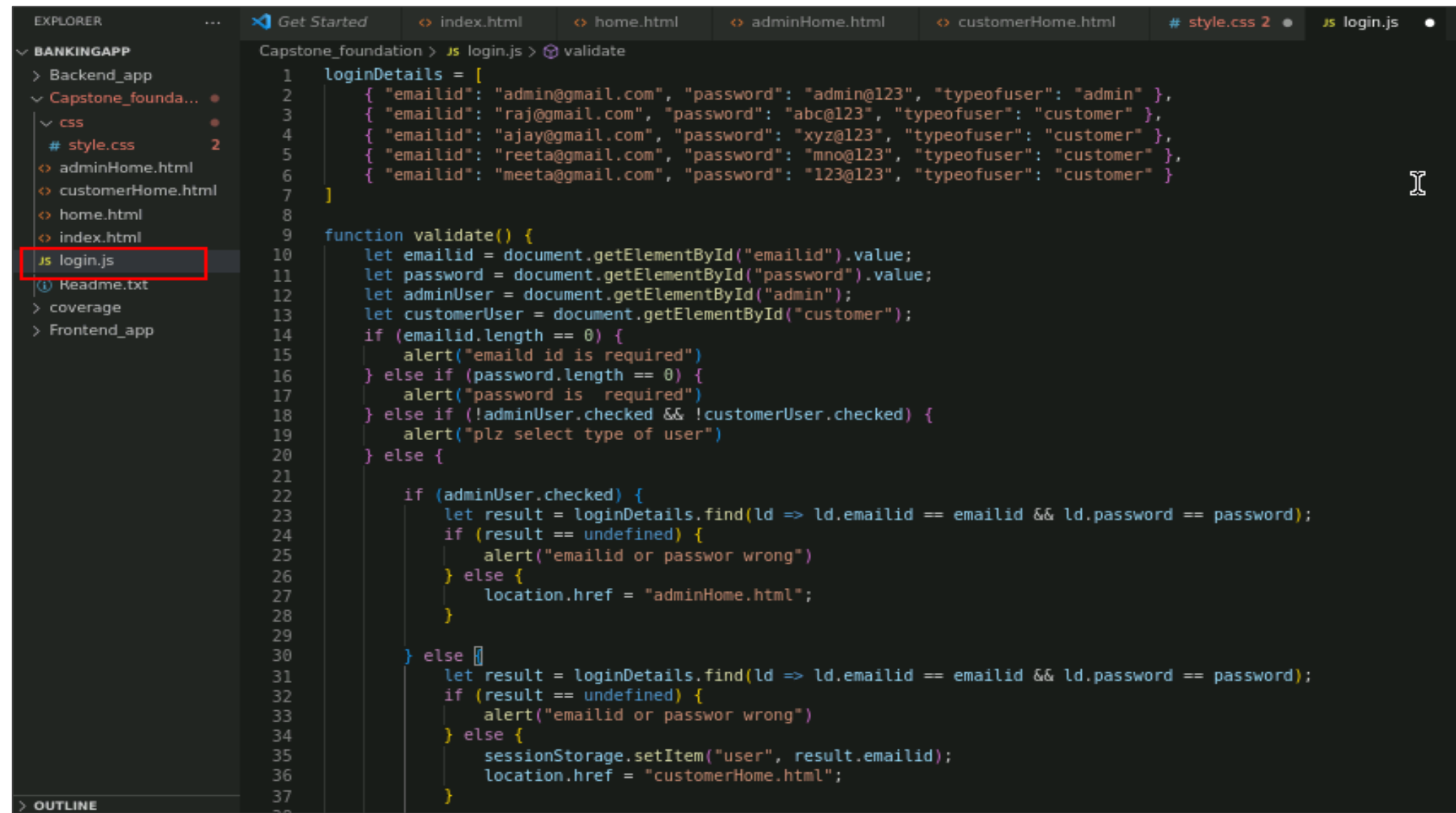
Create a JavaScript File for Login Functionalities

Create a JavaScript file for the following customer login functionalities:

- Customer logs in using a dummy account stored in an array.
- Customer login is successful, only If the account is valid.
- Customer can view their account details.
- Customer can access the transaction details.
- Static web pages assist with transactions such as transfers, balance checks, withdrawals, and deposits.

Create a JavaScript File for Login Functionalities

Create a **login.js** file for the following login validation functionalities: admin and customer user type distinction, email ID validation and password validation



```
EXPLORER  ...  Get Started  index.html  home.html  adminHome.html  customerHome.html  # style.css 2  js login.js  validate

BANKINGAPP
├── Backend_app
├── Capstone_foundation
│   ├── css
│   │   └── style.css 2
│   ├── adminHome.html
│   ├── customerHome.html
│   ├── home.html
│   ├── index.html
│   └── js login.js
├── README.txt
├── coverage
└── Frontend_app

Capstone_foundation > js login.js > validate
1  loginDetails = [
2    { "emailid": "admin@gmail.com", "password": "admin@123", "typeofuser": "admin" },
3    { "emailid": "raj@gmail.com", "password": "abc@123", "typeofuser": "customer" },
4    { "emailid": "ajay@gmail.com", "password": "xyz@123", "typeofuser": "customer" },
5    { "emailid": "reeta@gmail.com", "password": "mno@123", "typeofuser": "customer" },
6    { "emailid": "meeta@gmail.com", "password": "123@123", "typeofuser": "customer" }
7  ]
8
9  function validate() {
10     let emailid = document.getElementById("emailid").value;
11     let password = document.getElementById("password").value;
12     let adminUser = document.getElementById("admin");
13     let customerUser = document.getElementById("customer");
14     if (emailid.length == 0) {
15         alert("email id is required")
16     } else if (password.length == 0) {
17         alert("password is required")
18     } else if (!adminUser.checked && !customerUser.checked) {
19         alert("plz select type of user")
20     } else {
21
22         if (adminUser.checked) {
23             let result = loginDetails.find(ld => ld.emailid == emailid && ld.password == password);
24             if (result == undefined) {
25                 alert("emailid or password wrong")
26             } else {
27                 location.href = "adminHome.html";
28             }
29         } else {
30             let result = loginDetails.find(ld => ld.emailid == emailid && ld.password == password);
31             if (result == undefined) {
32                 alert("emailid or password wrong")
33             } else {
34                 sessionStorage.setItem("user", result.emailid);
35                 location.href = "customerHome.html";
36             }
37         }
38     }
39 }
```

Create a JavaScript File for Login Functionalities

The login page prompts for the user type selection validation.

Banker Online App.

This page says
plz select type of user

OK

ntact f t in

Reset Your Password

Password

Confirm Password

Change

Sign In

Email address
admin@gmail.com

Password
...

☐ Admin ☐ Customer

SIGN IN

[SignUp](#)

Create a JavaScript File for Login Functionalities

The login page prompts for the email ID and password validation for the admin login.

Banker Online App.


This page says
emailid or passwor wrong

OK

ntact f t in

Login Page

Sign In



Reset Your Password
Password
Confirm Password
Change

Email address
admin@gmail.com

Password
...

☒ Admin ☐ Customer

SIGN IN

SignUp

Create a JavaScript File for Login Functionalities

The login page prompts that a password is required for any type of user login.

Banker Online App.


This page says
password is required

OK

ntact f t in

Login Page

Sign In



Reset Your Password
Password
Confirm Password
Change

Email address
raj@gmail.com

Password

☐ Admin ☒ Customer

SIGN IN

[Sign Up](#)

Create a JavaScript File for Login Functionalities

The login page prompts that an email ID is required for any type of user login.

Banker Online App.


This page says
email id is required

OK

ntact f t in

Login Page

Sign In



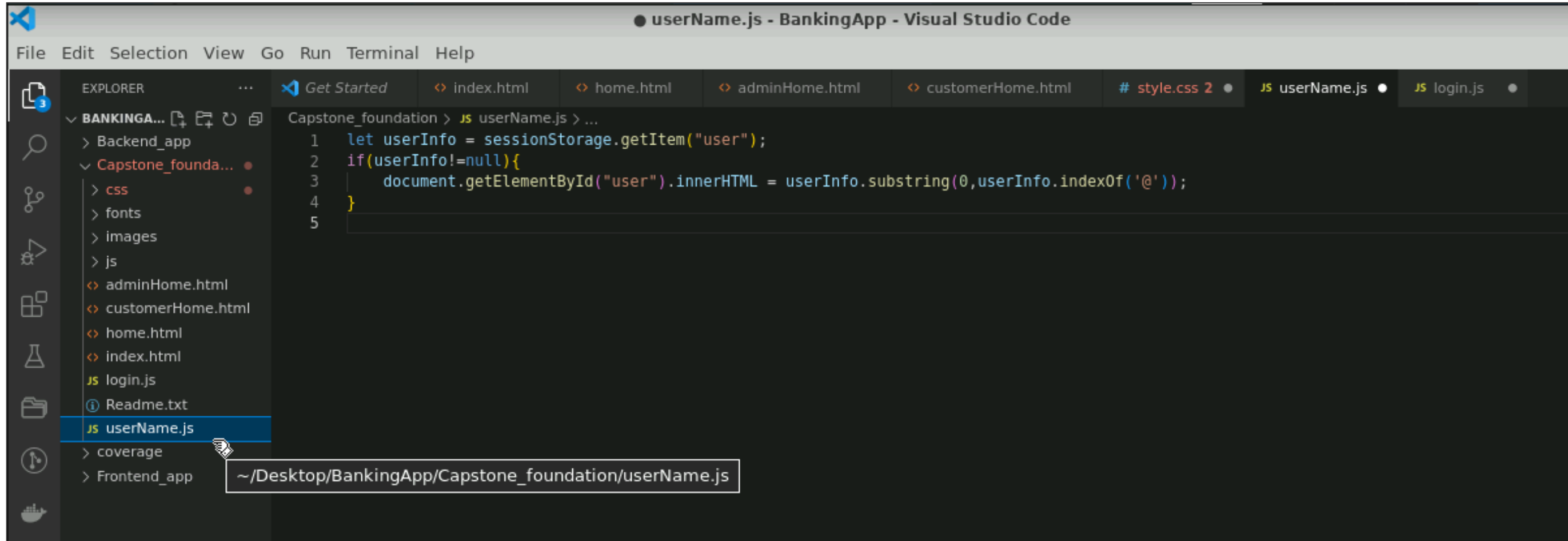
☐ Admin ☒ Customer

SIGN IN

[SignUp](#)

Retrieve Username from the Current Session

Create a **userName.js** file that retrieves a value from the session storage, and extracts the username portion of the value

A screenshot of the Visual Studio Code editor interface. The title bar shows 'userName.js - BankingApp - Visual Studio Code'. The Explorer sidebar on the left shows a project structure with folders like 'Backend_app', 'Capstone_foundation', 'css', 'fonts', 'images', 'js', and 'coverage'. The 'js' folder is expanded, showing files like 'adminHome.html', 'customerHome.html', 'home.html', 'index.html', 'login.js', and 'userName.js'. The 'userName.js' file is selected and highlighted. The main editor area shows the code for 'userName.js' with the following content:

```
1 let userInfo = sessionStorage.getItem("user");
2 if(userInfo!=null){
3     document.getElementById("user").innerHTML = userInfo.substring(0,userInfo.indexOf('@'));
4 }
5
```

The file path for 'userName.js' is shown as '~/.Desktop/BankingApp/Capstone_foundation/userName.js'.

This username will be displayed on the customer home page.

Retrieve Username from the Current Session

The retrieved username is displayed on the customer home page.



Conclusion

By the end of the session, it is expected that:

- All types of login validations must be done through HTML or JavaScript.
- An appropriate error message must be displayed for all types of login validations.
- The static data must be loaded from the array using JavaScript and displayed on the web pages.





Thank you