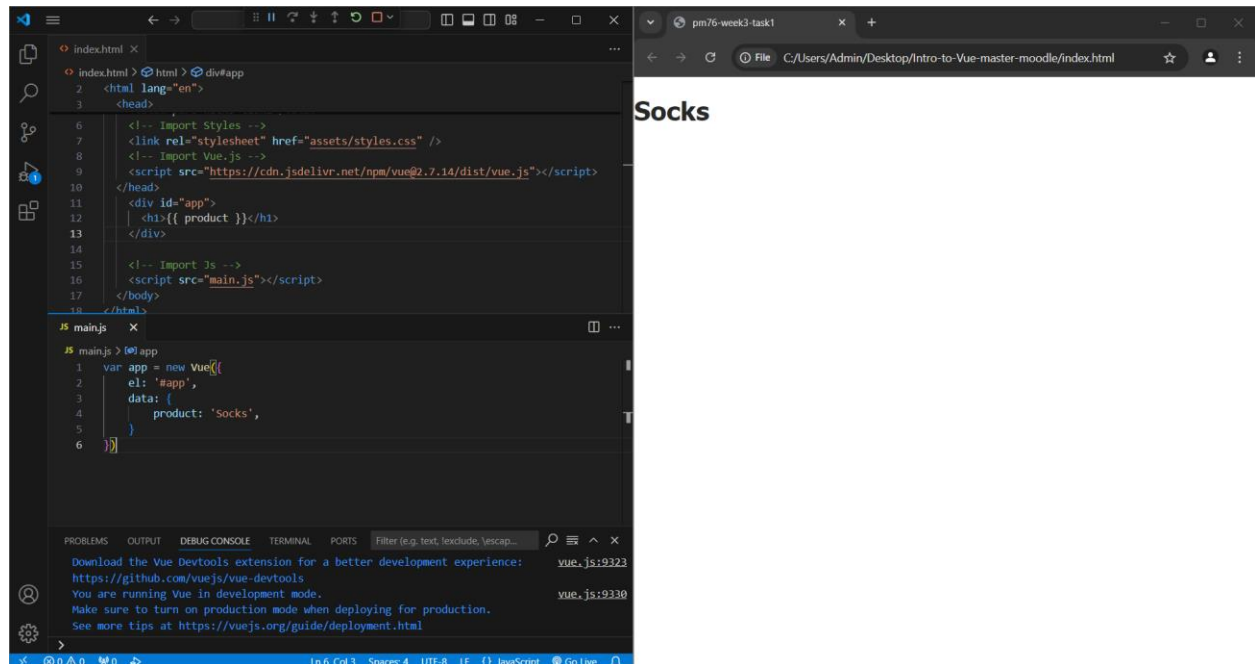


Full Name / Student ID:	Dao Vinh Long / 001322975
Submission Title:	COMP1842 Task 1 & 2
Course Name:	Web programing 2
Course Code:	COMP1842

## Task A (Lesson 1-4):

### Lesson 1: The Vue Instance



The screenshot shows a web browser window with the address bar displaying 'C:/Users/Admin/Desktop/Intro-to-Vue-master-moodle/index.html'. The browser content displays the word 'Socks'. Below the browser, a code editor (VS Code) is open, showing the source code for the application. The code is split into two files: 'index.html' and 'main.js'.

**index.html**

```

1 <html>
2   <html lang="en">
3   <head>
4     <title>Socks</title>
5     <meta charset="UTF-8">
6     <!-- Import Styles -->
7     <link rel="stylesheet" href="assets/styles.css" />
8     <!-- Import Vue.js -->
9     <script src="https://cdn.jsdelivr.net/npm/vue@2.7.14/dist/vue.js"></script>
10  </head>
11  <div id="app">
12    <h1>{{ product }}</h1>
13  </div>
14
15  <!-- Import Js -->
16  <script src="main.js"></script>
17 </body>
18 </html>

```

**main.js**

```

1 var app = new Vue({
2   el: '#app',
3   data: {
4     product: 'Socks',
5   }
6 })

```

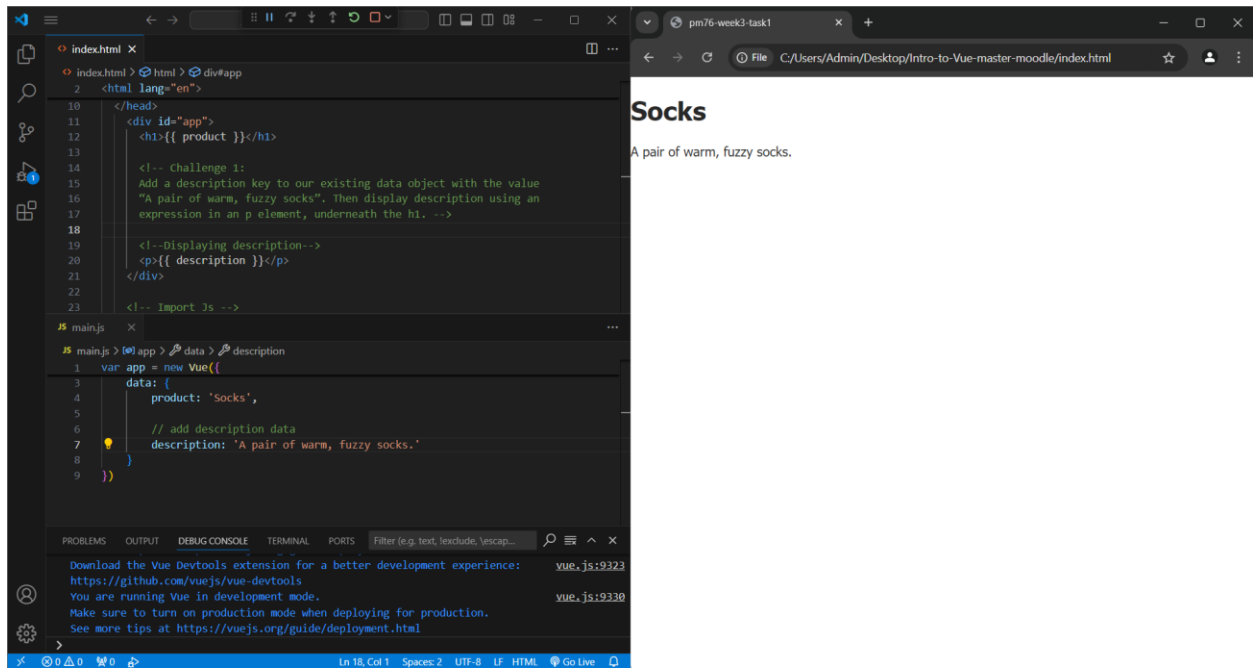
The bottom of the code editor shows the 'PROBLEMS' and 'OUTPUT' panels. The 'OUTPUT' panel displays the following message:

```

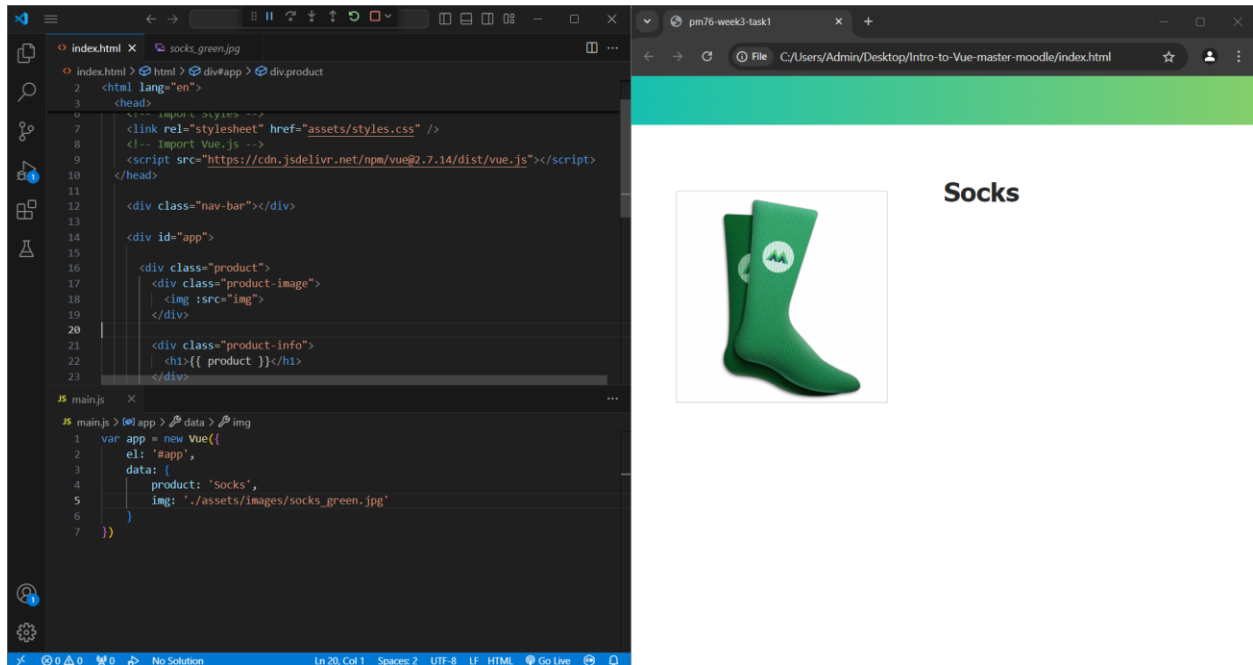
Download the Vue Devtools extension for a better development experience:
https://github.com/vuejs/vue-devtools
You are running Vue in development mode.
Make sure to turn on production mode when deploying for production.
See more tips at https://vuejs.org/guide/deployment.html

```

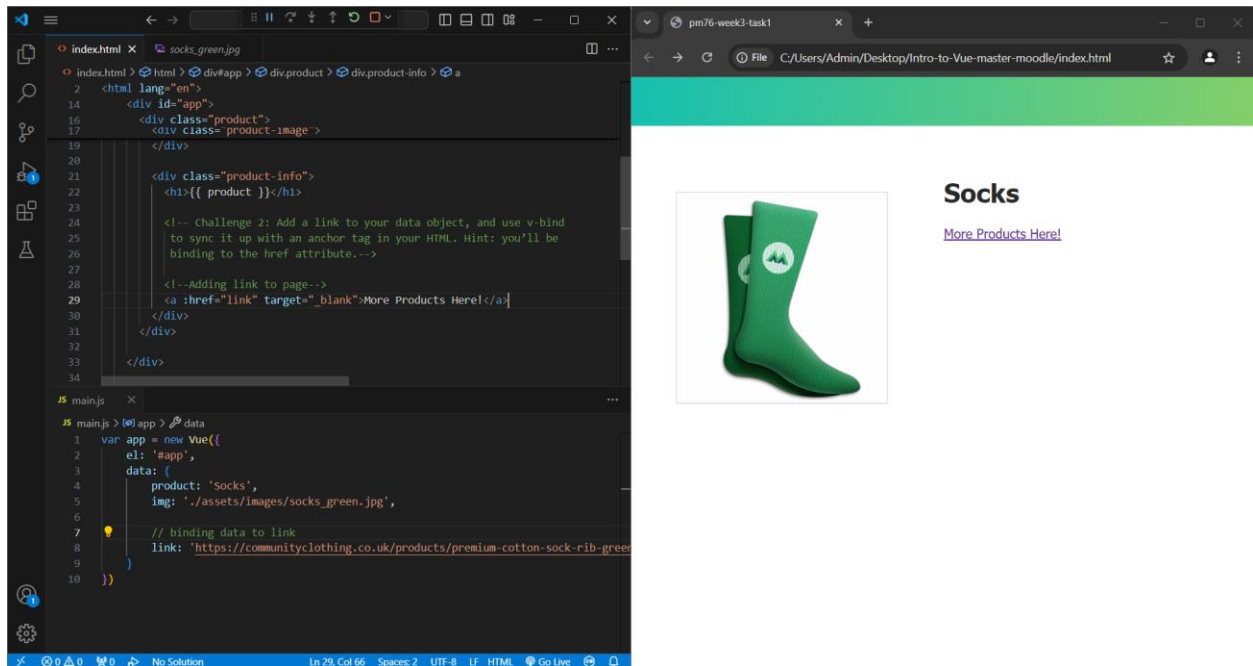
## Challenge 1:



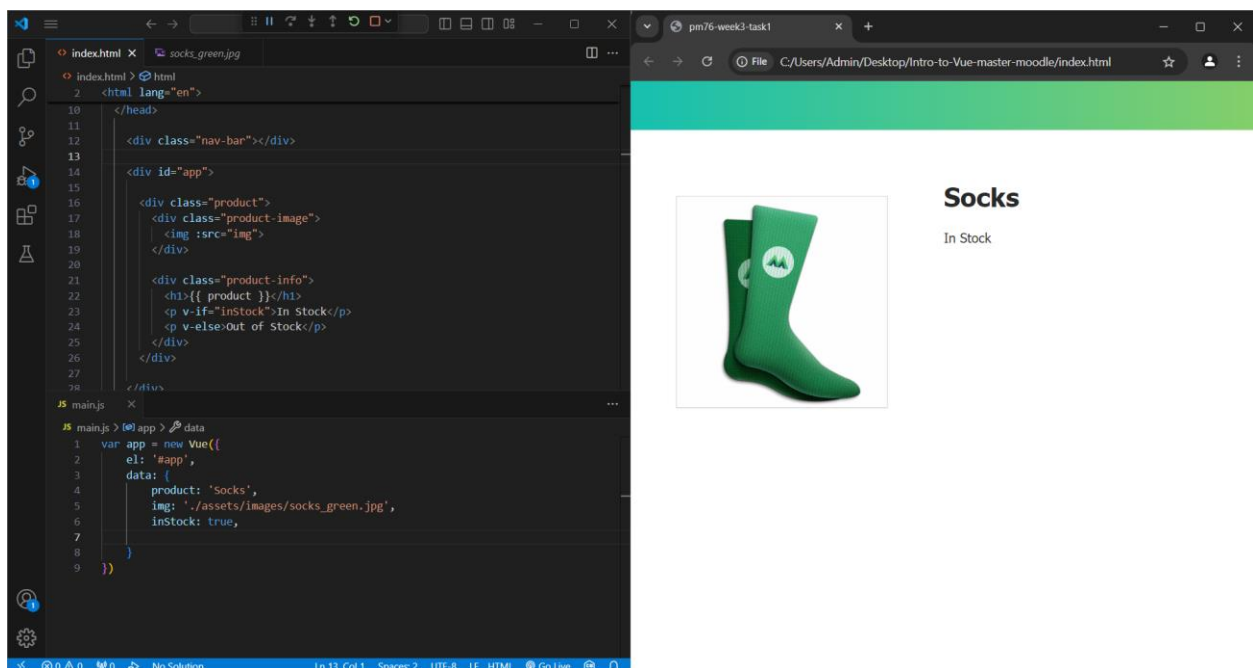
## Lesson 2: Attribute Binding



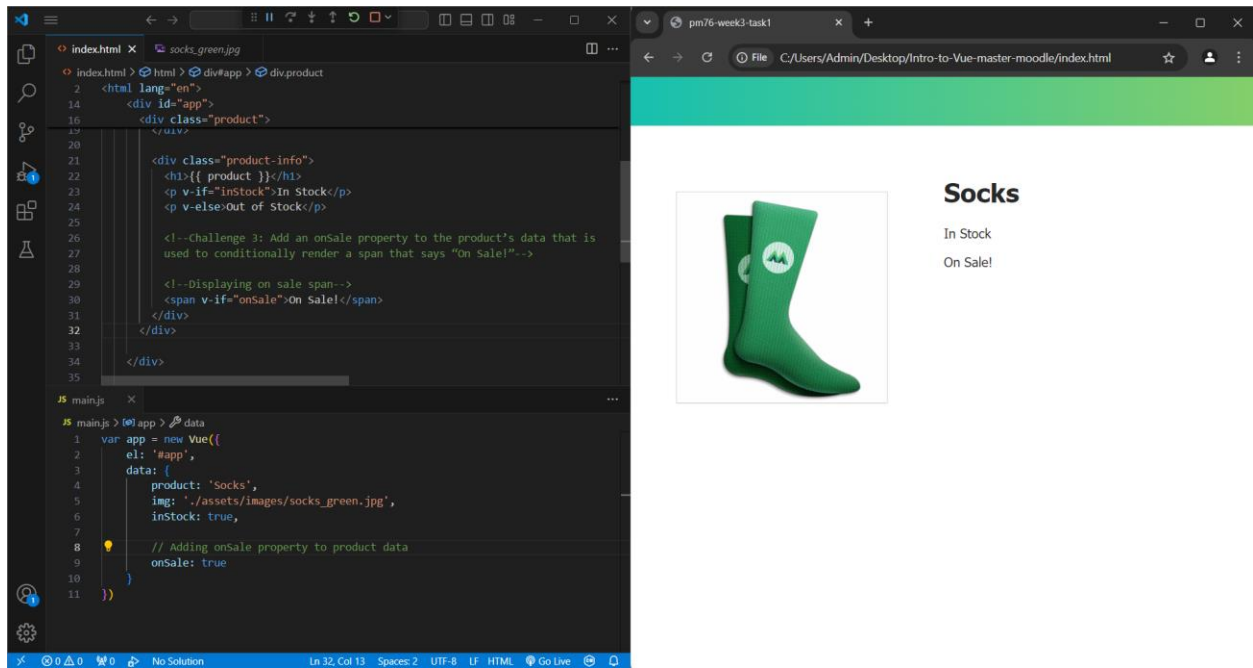
## Challenge 2:



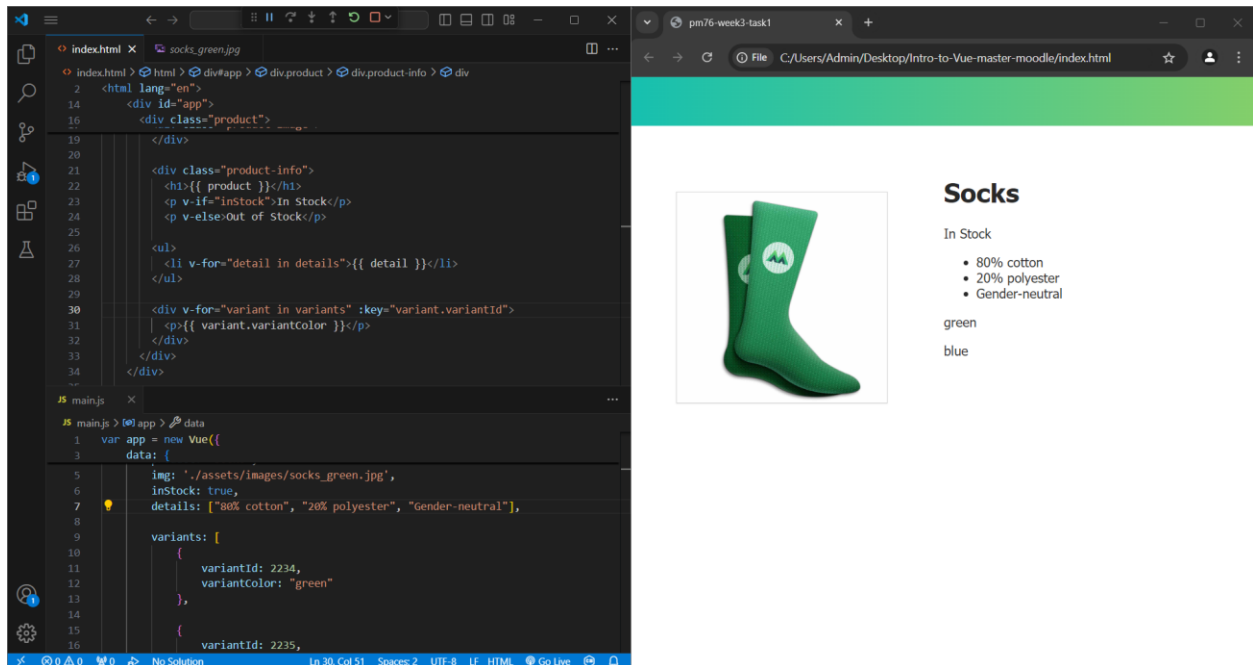
## Lesson 3: Conditional Rendering



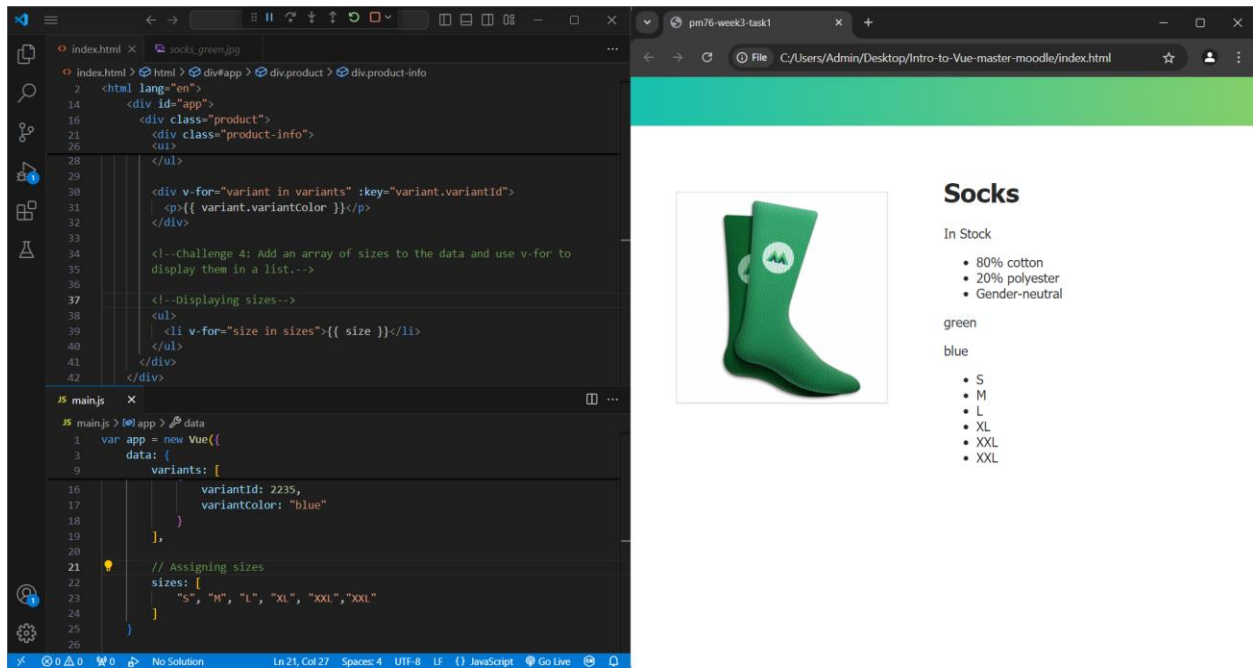
## Challenge 3



## Lesson 4: List Rendering



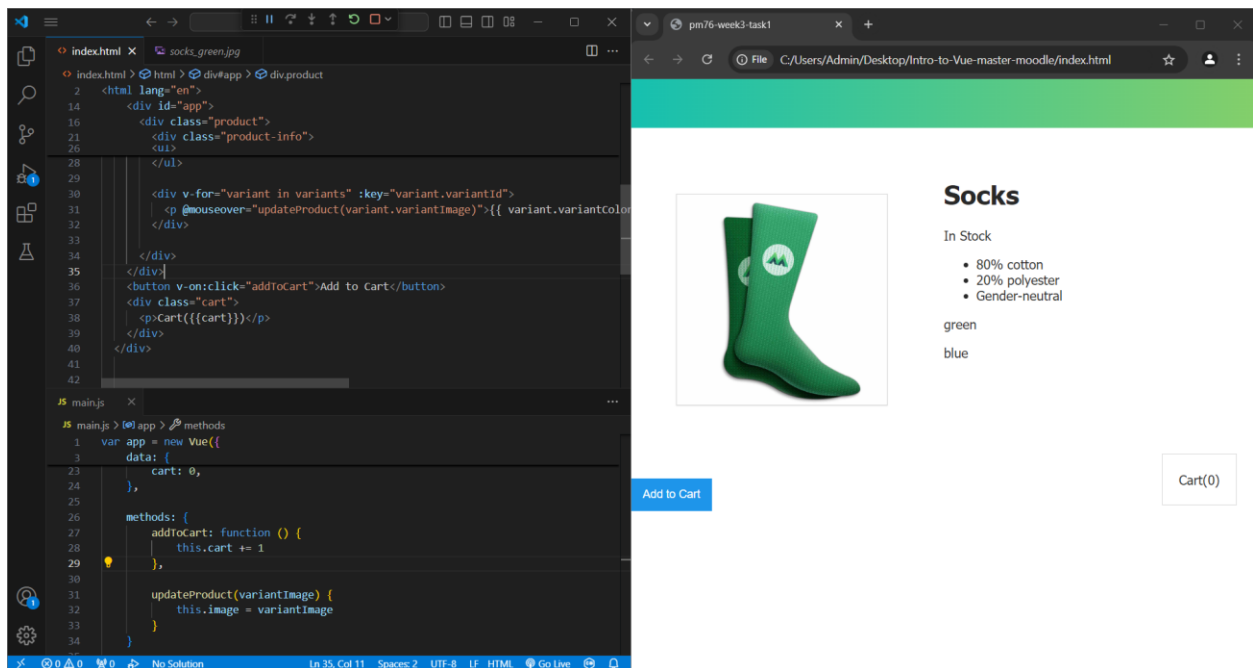
## Challenge 4:



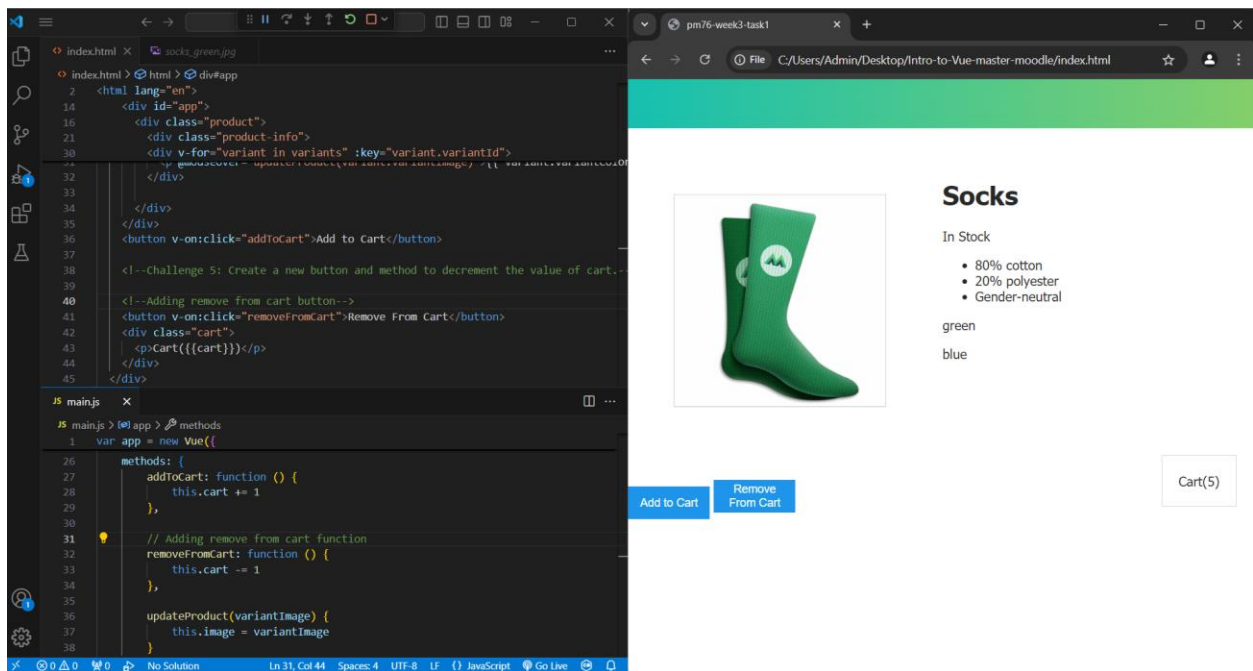
**Task 1 Evaluation:** From task 1 (lesson 1-4), I have understood how to create and manage a Vue instance. Bind HTML attributes (such as href, src, etc.) to the data properties in Vue instance using the v-bind directive. This makes the app more dynamic and responsive to changes in data. v-if, v-else, and v-show are used to control conditional elements. rendering lists of items using the v-for allow to dynamically display arrays or objects and manage list data effectively.

## Task 2: Lesson 5-7

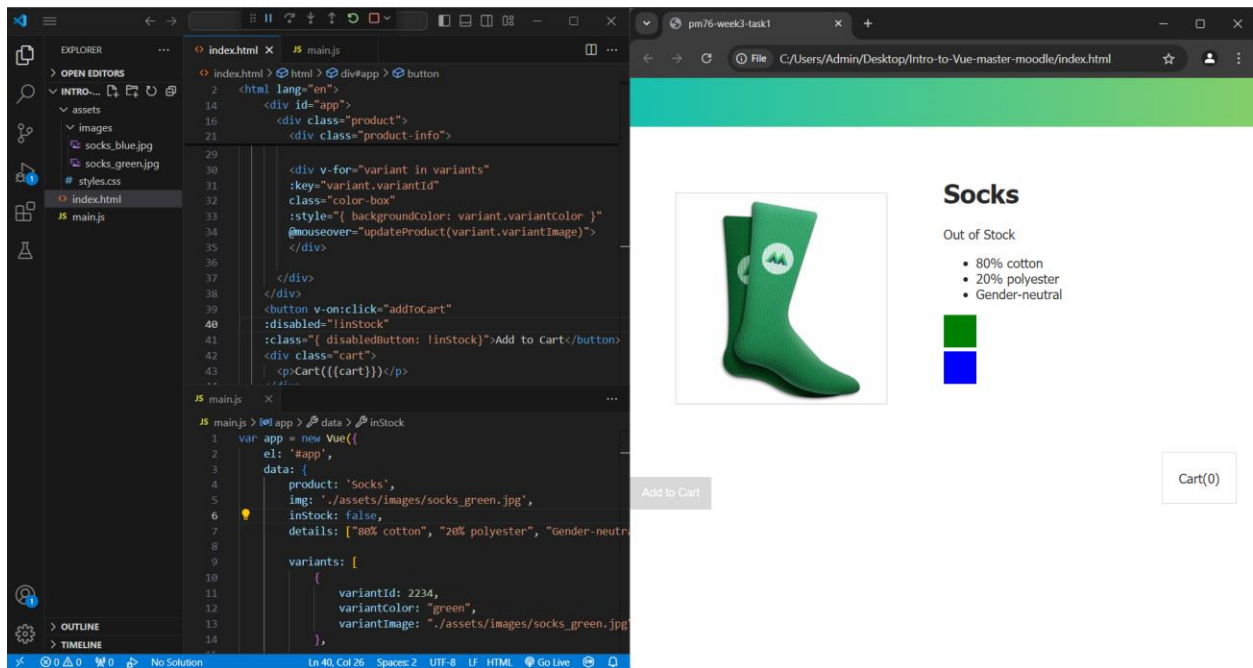
### Lesson 5: Event Handling



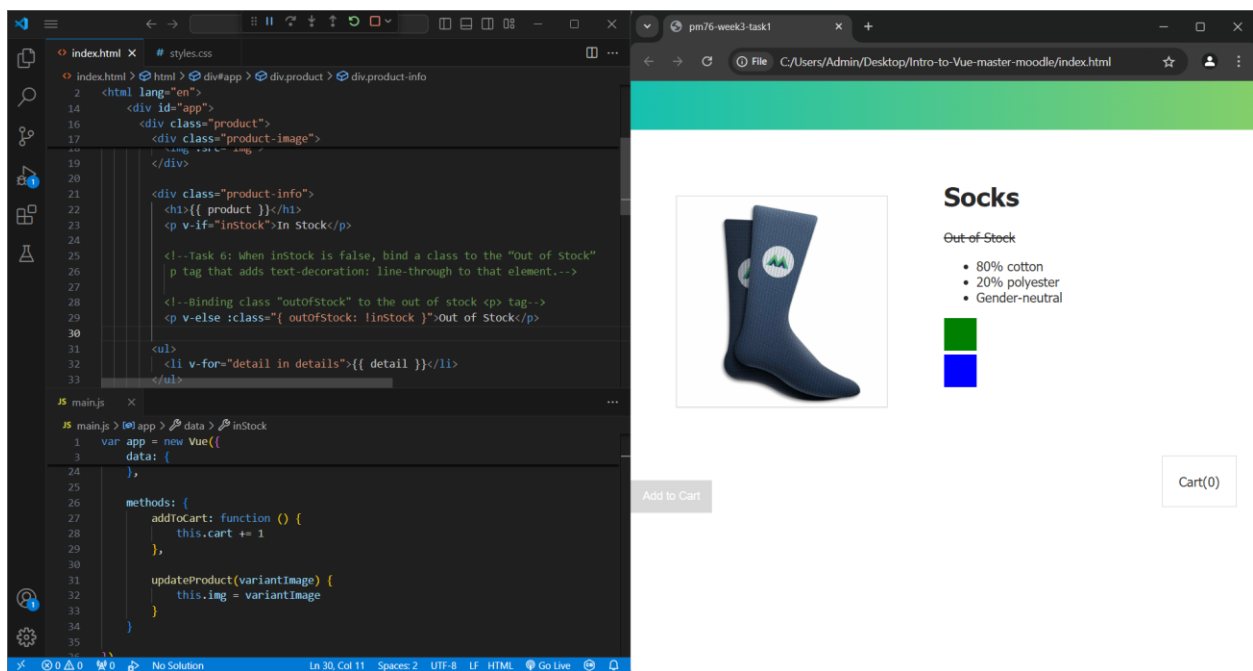
## Challenge 5:



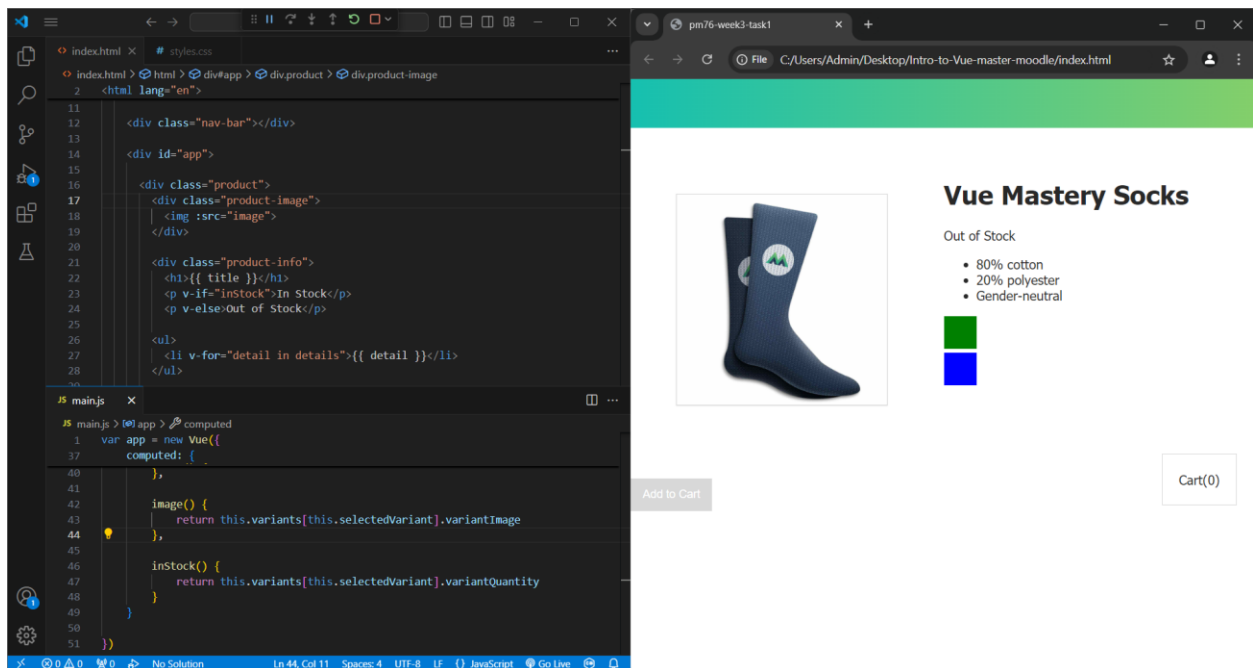
## Lesson 6: Class & Style Binding



## Challenge 6:

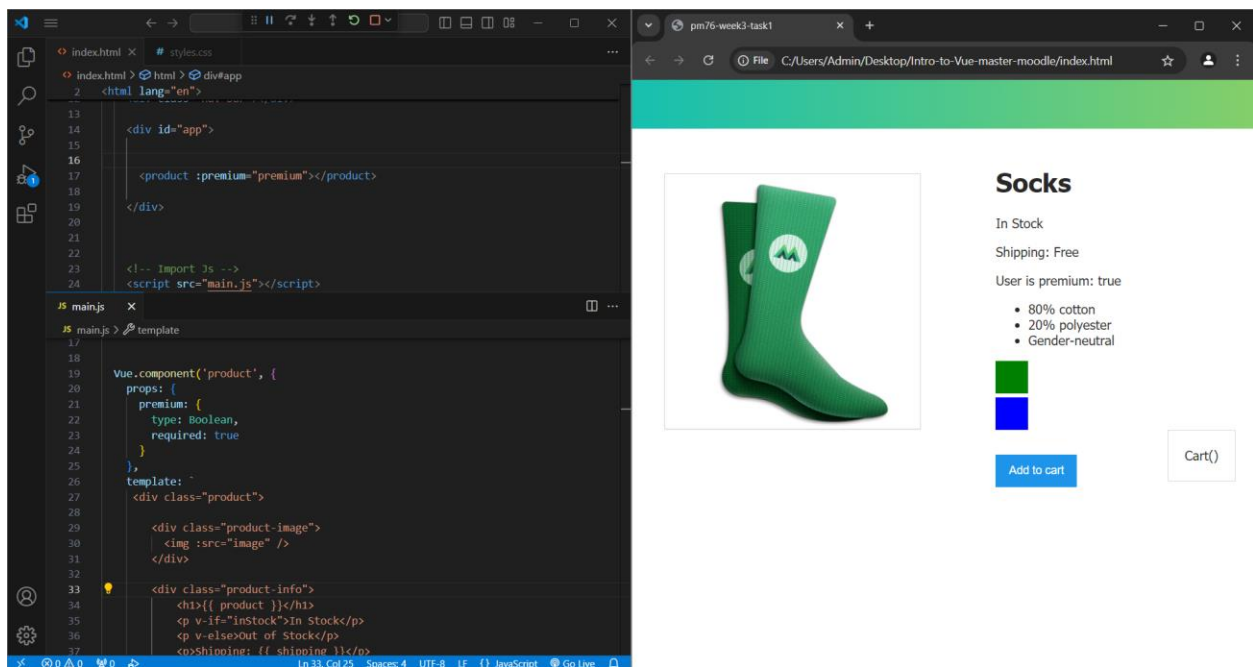


## Lesson 7: Computed Properties



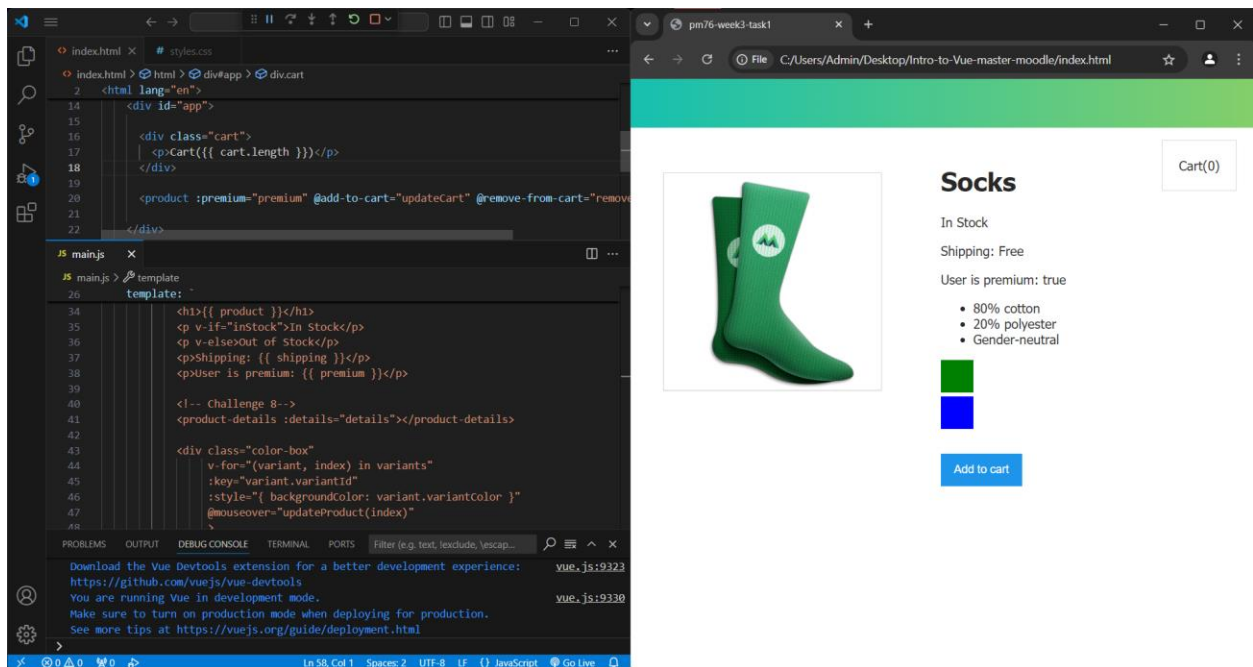


## Task



The screenshot shows a web application with a single product, 'Socks', displayed in a cart. The product is green with a mountain logo. The cart contains one item. The user is premium, shipping is free, and the product is in stock. The interface includes a product image, a list of specifications (80% cotton, 20% polyester, Gender-neutral), and an 'Add to cart' button. The cart is labeled 'Cart()'.

```
index.html<div id="app">  <product :premium="premium"></product> </div> <!-- Import JS --> <script src="main.js"></script> JS main.js  Vue.component('product', {    props: {      premium: {        type: Boolean,        required: true      }    },    template: `      <div class="product">        <div class="product-image">                  </div>        <div class="product-info">          <h3>{{ product }}
```



The screenshot shows a web application with a single product, 'Socks', displayed in a cart. The product is green with a mountain logo. The cart contains one item. The user is premium, shipping is free, and the product is in stock. The interface includes a product image, a list of specifications (80% cotton, 20% polyester, Gender-neutral), and an 'Add to cart' button. The cart is labeled 'Cart(0)'.

```
index.html<div id="app">  <div class="cart">    <p>Cart({{ cart.length }})</p>  </div>  <product :premium="premium" @add-to-cart="updateCart" @remove-from-cart="removeFromCart">  </product> </div> JS main.js  Vue.component('product', {    props: {      premium: {        type: Boolean,        required: true      }    },    template: `      <div class="product">        <div class="product-image">                  </div>        <div class="product-info">          <h3>{{ product }}
```

index.html

# styles.css

index.html > html > div#app > product

2 <html lang="en">

13

14 <div id="app">

15

16 <div class="cart">

17 <p>Cart({{ cart.length }})</p>

18 </div>

19

20 <product :premium="premium" @add-to-cart="updateCart" @remove-from-cart="removeFromCart">

21

22 </div>

23

24

main.js

1 // Challenge 9: Add a button that removes the product from the cart array by emitting

2 Vue.component('product-details', {

3

4 props: {

5 details: {

6 type: Array,

7 required: true

8 }

9 },

10 template: `

11 <ul>

12 <li v-for="detail in details">{{ detail }}</li>

13 </ul>

14 `

15 }

16

17 // Challenge 8: Create a new component for product-details with a prop of details.

18 Vue.component('product', {

19 props: {

20 premium: {

21

22


23

24

pm76-week3-task1

File C:/Users/Admin/Desktop/Intro-to-Vue-master-moodle Google Lens

Cart(0)



## Socks

In Stock

Shipping: Free

User is premium: true

- 80% cotton
- 20% polyester
- Gender-neutral

Add to cart

Remove item

index.html

# styles.css

index.html > html

2 <html lang="en">

13

14 <div id="app">

15

16 <div class="cart">

17 <p>Cart({{ cart.length }})</p>

18 </div>

19

20 <product :premium="premium" @add-to-cart="updateCart" @remove-from-cart="removeFromCart">

21

22 </div>

23

24

main.js

17

18 Vue.component('product-review', {

19 template: `

20 <form class="review-form" @submit.prevent="onSubmit">

21

22 <p class="error" v-if="errors.length">

23 <b>Please correct the following error(s):</b>

24 <ul>

25 <li v-for="error in errors">{{ error }}</li>

26 </ul>

27 </p>

28

29 <p>

30 <label for="name">Name:</label>

31 <input id="name" v-model="name">

32 </p>

33

34 <p>

35 <label for="review">Review:</label>

36 <textarea id="review" v-model="review"></textarea>

37 </form>


38 `

39 }

pm76-week3-task1

File C:/Users/Admin/Desktop/Intro-to-Vue-master-moodle/index.html

Cart(0)



## Socks

In Stock

Shipping: Free

User is premium: true

- 80% cotton
- 20% polyester
- Gender-neutral

Add to cart

Remove item

## Reviews

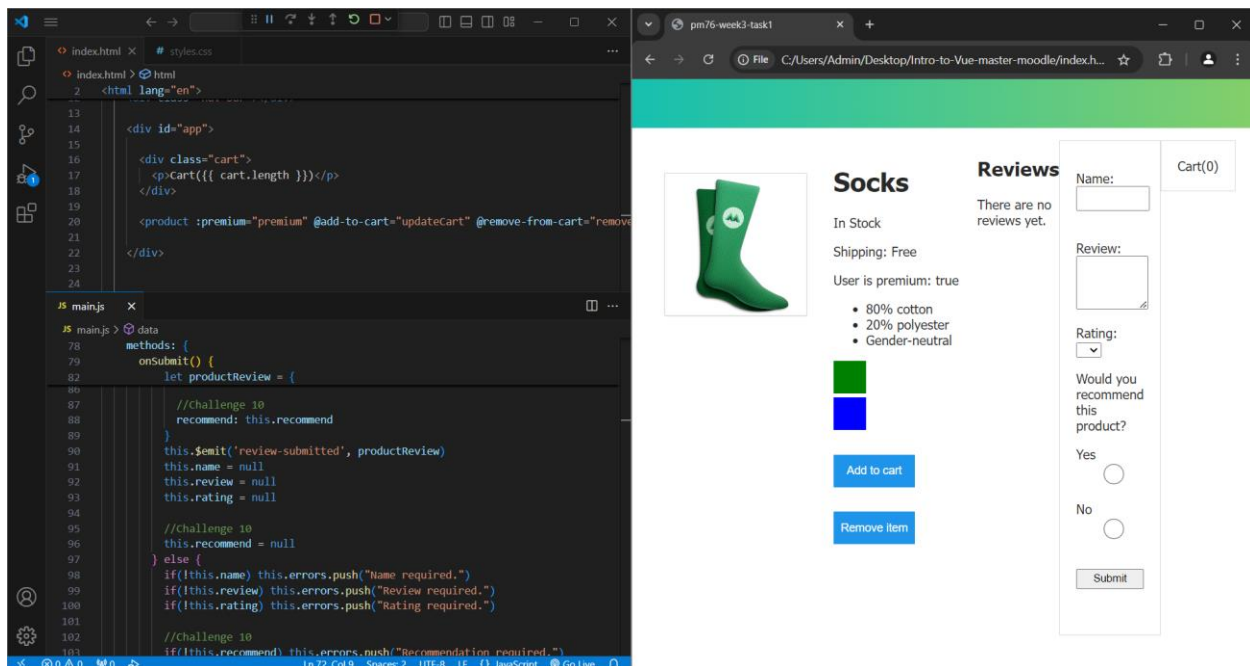
There are no reviews yet.

Name: <input type="text">

Review: <input type="text">

Rating: <select>

Would you recommend this product? <input type="button" value="Submit">



## Evaluation:

In lesson 8, I learned how to create and use Vue components. Components help break down the user interface into smaller pieces, making the app more manageable. For example, I can pass data to these components using props, allowing different parts of the app to communicate with each other. This helps manage the UIs by dividing them into sections with their own functionality. In lesson 9, I learned about communicating events between components. I used `$emit` to send custom events from child to parent components, allowing the parent to listen for these events and respond. In lesson 10, I learned how to work with forms in Vue using the v-model directive for two-way data binding. For example, I could bind input fields directly to data in the Vue instance. Additionally, I learned how to handle form submissions and perform validation making data management more efficient when processing user inputs. These lessons deepen my understanding of building interactive Vue.js applications with components, communication between components, and handling user input.

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Welcome to Studio 3T x IntelliShell: atlas-d89yn5-shard-0 x welsh\_pubs

longdvgcs220434 > atlas-d89yn5-shard-0 (longdvgcs220434@web2cluster.6ftv.mongodb.net) > pubs > welsh\_pubs

User: longdvgcs220434  
Connection: atlas-d89yn5-shard-0  
(longdvgcs220434@web2cluster.6ftv.mongodb.net)  
Database: pubs  
Collection: welsh\_pubs

Query: {}

Result Query Code Explain

Documents 1 to 50

Table View

welsh\_pubs > address

_id	fsa_id	name	address	location	local_authority	cont
523718	523718	1 Town Hall Sq...	[4 fields]	[4 fields]	Vale of Glamor...	
5d34c59c098c00...	522955	1209 Branch Cw...	[4 fields]	[4 fields]	Torfaen	
5d34c59c098c00...	499241	147 Club	[4 fields]	[4 fields]	Cardiff	
5d34c59c098c00...	499245	4th Glamorgan ...	[4 fields]	[4 fields]	Cardiff	
5d34c59c098c00...	519221	5th Welch Old C...	[4 fields]	[4 fields]	Rhondda Cynon...	
5d34c59c098c00...	495966	A Touch of Class	[4 fields]	[4 fields]	Blaenau Gwent	
5d34c59c098c00...	502502	ABADAM ARMS	[4 fields]	[4 fields]	Caermerthenshire	
5d34c59c098c00...	497849	Aber & Senghe...	[4 fields]	[4 fields]	Caerphilly	
5d34c59c098c00...	497850	Aber Hotel	[4 fields]	[4 fields]	Caerphilly	
5d34c59c098c00...	504225	ABERAERON SP...	[4 fields]	[4 fields]	Ceredigion	
5d34c59c098c00...	504227	Aberavon Yach...	[4 fields]	[4 fields]	Ceredigion	
5d34c59c098c00...	519249	Aberaman Orig...	[4 fields]	[4 fields]	Rhondda Cynon...	
5d34c59c098c00...	512671	Aberavon & Por...	[4 fields]	[4 fields]	Neath Port Talbot	
5d34c59c098c00...	512674	Aberavon Gree...	[4 fields]	[4 fields]	Neath Port Talbot	
5d34c59c098c00...	512675	Aberavon Harle...	[4 fields]	[4 fields]	Neath Port Talbot	
5d34c59c098c00...	512678	Aberavon South...	[4 fields]	[4 fields]	Neath Port Talbot	
5d34c59c098c00...	495867	Aberbeeg Rugb...	[4 fields]	[4 fields]	Blaenau Gwent	

1 document selected 3,122 documents 00:00:03.880

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Welcome to Studio 3T x IntelliShell: atlas-d89yn5-shard-0 x welsh\_pubs

longdvgcs220434 > atlas-d89yn5-shard-0 (longdvgcs220434@web2cluster.6ftv.mongodb.net) > pubs > welsh\_pubs

Run Load query Save query Query history Set default query Copy Paste

Query: {"name": "snooker", "local\_authority": {"\$ne": "Caerphilly"}}

Result Query Code Explain

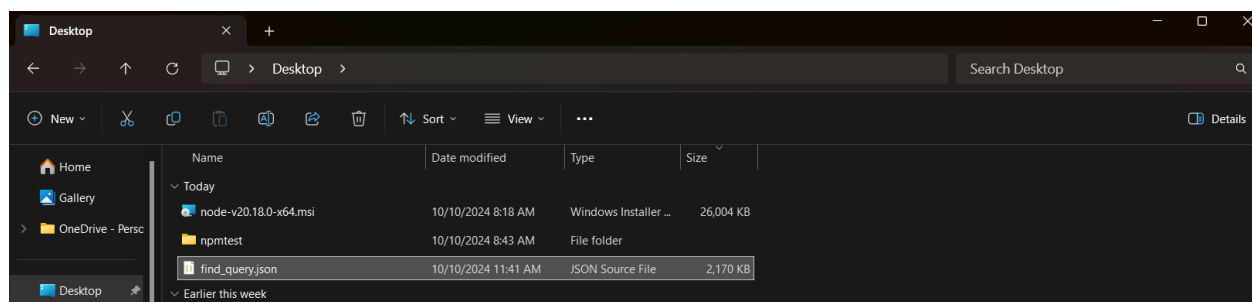
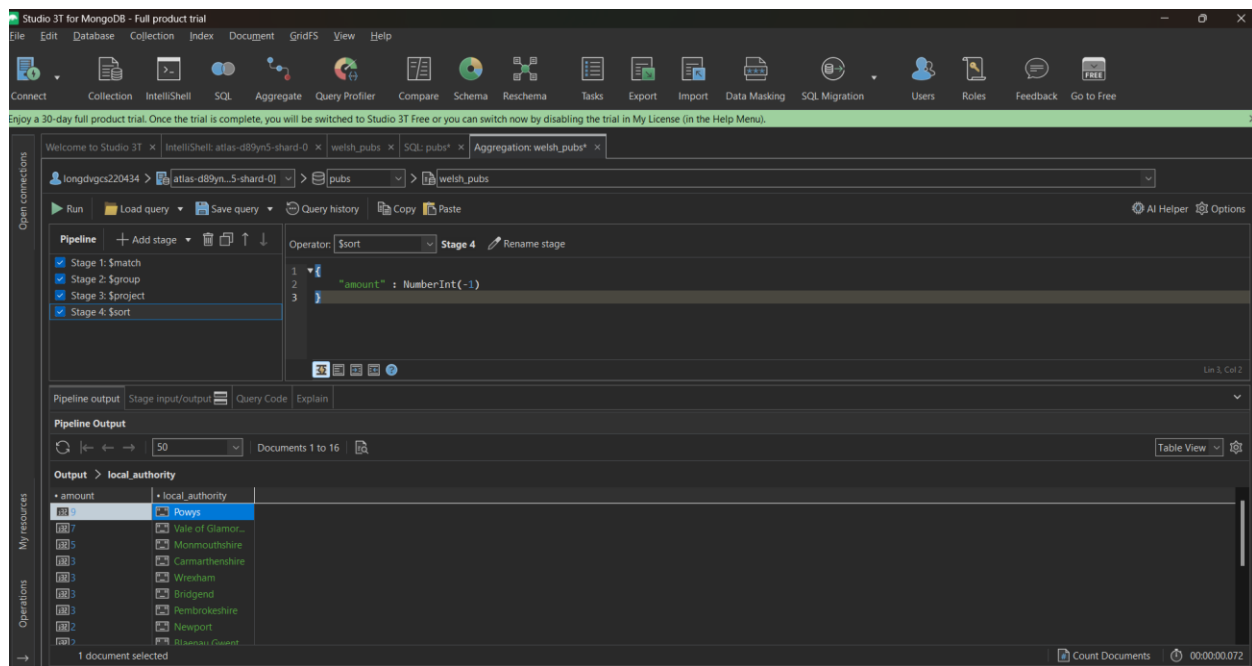
Documents 1 to 14

Table View

welsh\_pubs > fsa\_id

_id	fsa_id	name	address	city (address.city)	local_authority
5d34c59c098c00...	519623	Cue Snooker Cl...	[4 fields]	Aberdare	Rhondda Cynon...
5d34c59c098c00...	505774	Cues Snooker Cl...	[4 fields]	Aberdare	Conwy
5d34c59c098c00...	503823	SNOOKER WOR...	[4 fields]	Ammanford	Caermerthenshire
5d34c59c098c00...	496704	Brackla Snooker...	[4 fields]	Bridgend	Bridgend
5d34c59c098c00...	524471	Penarth Road S...	[4 fields]	Cardiff	Cardiff
5d34c59c098c00...	523504	Redz Snooker C...	[4 fields]	Cwmbran	Torfaen
5d34c59c098c00...	506555	Snooker 147 Ltd	[4 fields]	Llanudno	Conwy
5d34c59c098c00...	503923	TERRY GRIFFITH...	[4 fields]	Llanelli	Caermerthenshire
5d34c59c098c00...	511630	Scala Pool And ...	[4 fields]	Merthyr Tydfil	Merthyr Tydfil
5d34c59c098c00...	513462	Skewen Snooker...	[4 fields]	Neath	Neath Port Talbot
5d34c59c098c00...	519791	Frames Snooker...	[4 fields]	Pontyclun	Rhondda Cynon...
5d34c59c098c00...	513206	Mackworth Sno...	[4 fields]	Port Talbot	Neath Port Talbot
5d34c59c098c00...	520608	Snooker and Ca...	[4 fields]	Port	Rhondda Cynon...
5d34c59c098c00...	496273	Mark Williams S...	[4 fields]	Tredeggar	Blaenau Gwent

1 document selected 14 documents 00:00:00.071



Through the exploration of MongoDB basics, I gained valuable insights into managing NoSQL databases efficiently. I learned how to create collections from a .Json file, enabling the seamless import of structured data into MongoDB. Reviewing collections in various views enhanced my understanding of how data can be visualized and interpreted differently depending on the selected view. The use of the Visual Query Builder proved essential in constructing and executing queries without needing advanced knowledge of MongoDB query syntax, allowing for a more intuitive approach to data retrieval. Moreover, I developed the ability to update data directly within a collection, showcasing MongoDB's flexibility.

In addition, using SQL within MongoDB aggregation broadened my skills by enabling SQL queries on a NoSQL platform. I learned to run SQL queries using the SQL Query Tool, export those queries to the Aggregation Editor, and modify them as needed, which improved my proficiency in transforming SQL logic into MongoDB's aggregation framework.

Lastly, I acquired practical experience in importing and exporting data. Importing document data from a .csv file and exporting it to .Json files or new collections enhanced my data manipulation capabilities, crucial for database management and integration in real-world applications.

## Appendix

### Git Link

<https://github.com/VinhLong47/WebProgrammingLab>