

Lesson 05 Demo 01

Creating a Shopping Cart with a List of Products

Objective: To demonstrate how to create a shopping cart using JavaScript arrays, add dishes to the cart, and display the contents of the cart

Tools Required: Visual Studio Code and Node.js

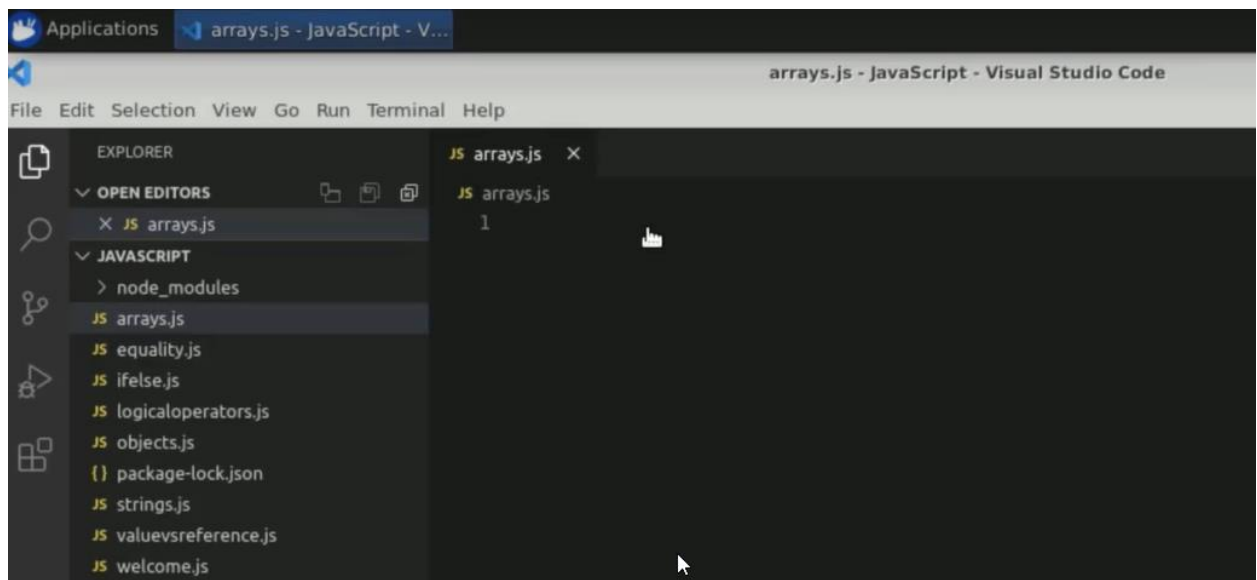
Prerequisites: None

Steps to be followed:

1. Create a menu and shopping cart
2. Implement logic to add dishes to the cart

Step 1: Create a menu and shopping cart

- 1.1 Open Visual Studio Code and create a new file named **arrays.js**



1.2 Create a **menu** object with dishes and their corresponding prices

```
JS arrays.js •  
JS arrays.js > ...  
1  let menu = {  
2    burger: 100,  
3    noodles: 200,  
4    pizza: 300,  
5    fries: 50,  
6    cola: 80  
7  }  
8
```

1.3 Declare an empty array called a **cart** to store the selected items

```
JS arrays.js •  
JS arrays.js > [0] cart  
1  let menu = {  
2    burger: 100,  
3    noodles: 200,  
4    pizza: 300,  
5    fries: 50,  
6    cola: 80  
7  }  
8  
9  let cart = []
```

1.4 Log the details and length of the cart using `console.log()`

```
JS arrays.js X
JS arrays.js > ...
1  let menu = {
2      burger: 100,
3      noodles: 200,
4      pizza: 300,
5      fries: 50,
6      cola: 80
7  }
8
9  let cart = []
10
11  console.log("Cart[" + cart.length + "] Details: " + cart);
12
```

Step 2: Implement logic to add dishes to the cart

2.1 Open the terminal and execute the `npm i prompt-sync` command to install the `prompt-sync` module



```
JS arrays.js X
JS arrays.js > ...
1  let menu = {
2    burger: 100,
3    noodles: 200,
4    pizza: 300,
5    fries: 50,
6    cola: 80
7  }
8
9  let cart = []
10
11 console.log("Cart[" + cart.length + "] Details: " + cart);
12

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node arrays.js
Cart[0] Details:
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node arrays.js
Cart[0] Details:
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ npm i prompt-sync
[.....] / rollbackFailedOptional: verb npm-session cf1529998100b1d5
```

2.2 Import the **prompt-sync** module into your JavaScript file using the **require** function.
Assign the result of the **require** function to a variable, such as **prompt**

```
JS arrays.js •
JS arrays.js > [0] prompt
1 let prompt = require(['prompt-sync'])
2
3 let menu = {
4     burger: 100,
5     noodles: 200,
6     pizza: 300,
7     fries: 50,
8     cola: 80
9 }
10
11 let cart = []
12
13 console.log("Cart[" + cart.length + "] Details: " + cart);
14
```

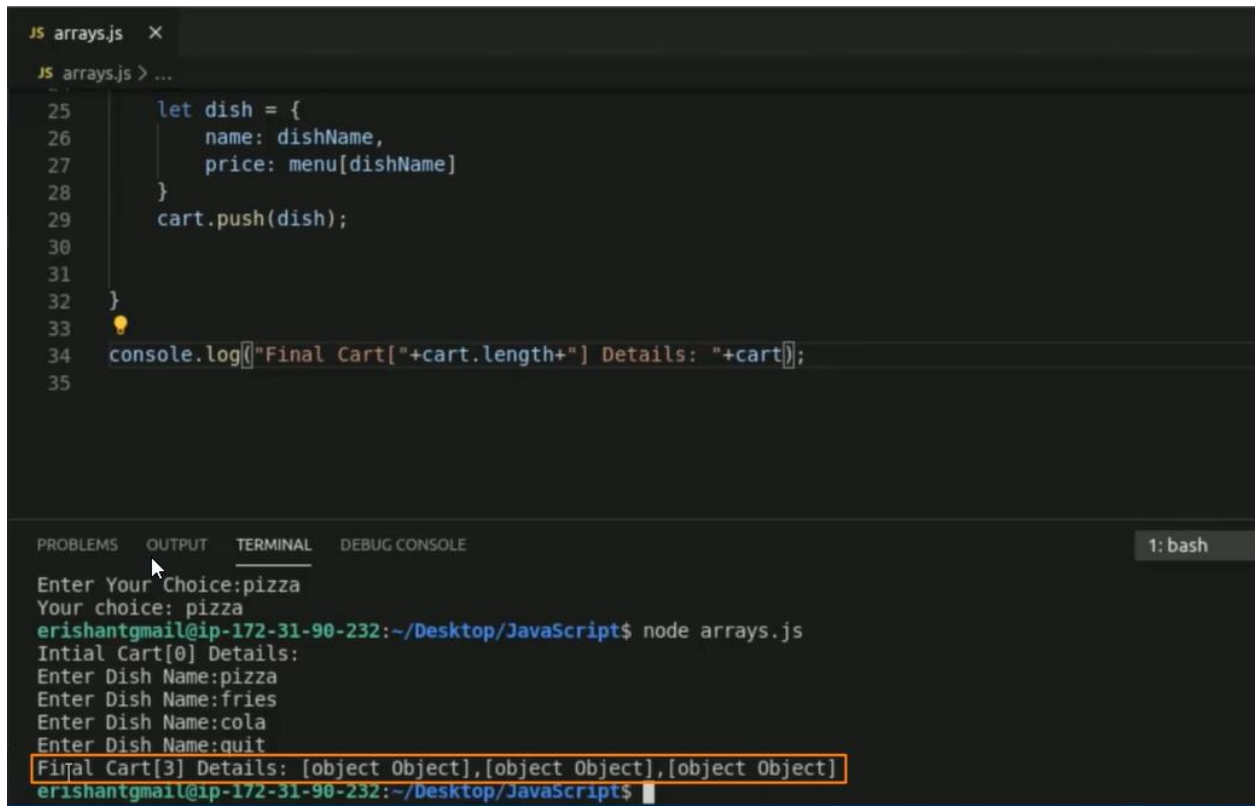
- 2.3 Use an infinite loop to continuously prompt the user for dish names. Create a dish object with the name and price retrieved from the menu. Add the dish object to the cart array using the **push()** method

```
JS arrays.js  X
JS arrays.js > ...

17
18 while(true){
19     let dishName = prompt("Enter Dish Name:")
20
21     if(dishName == "quit"){
22         break
23     }
24
25     let dish = {
26         name: dishName,
27         price: menu[dishName]
28     }
29     cart.push(dish);
30
31
32 }
```

The dish object will be appended as a new element at the end of the array.

2.4 Run the program and add dishes to the cart from the console



The screenshot shows a code editor with a file named `arrays.js`. The code defines a `menu` object with items like 'pizza', 'fries', and 'cola', and a `cart` array. It prompts the user to enter their choice and dish names, adding them to the cart. A `console.log` statement at the bottom prints the final cart details. Below the editor, a terminal window shows the execution of the program, with user inputs 'pizza', 'fries', and 'cola' being added to the cart. The final output is 'Final Cart[3] Details: [object Object],[object Object],[object Object]'. The terminal prompt is `erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$`.

```
JS arrays.js x
JS arrays.js > ...
25   let dish = {
26     name: dishName,
27     price: menu[dishName]
28   }
29   cart.push(dish);
30
31
32 }
33
34 console.log("Final Cart["+cart.length+"] Details: "+cart);
35
```

PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE 1: bash

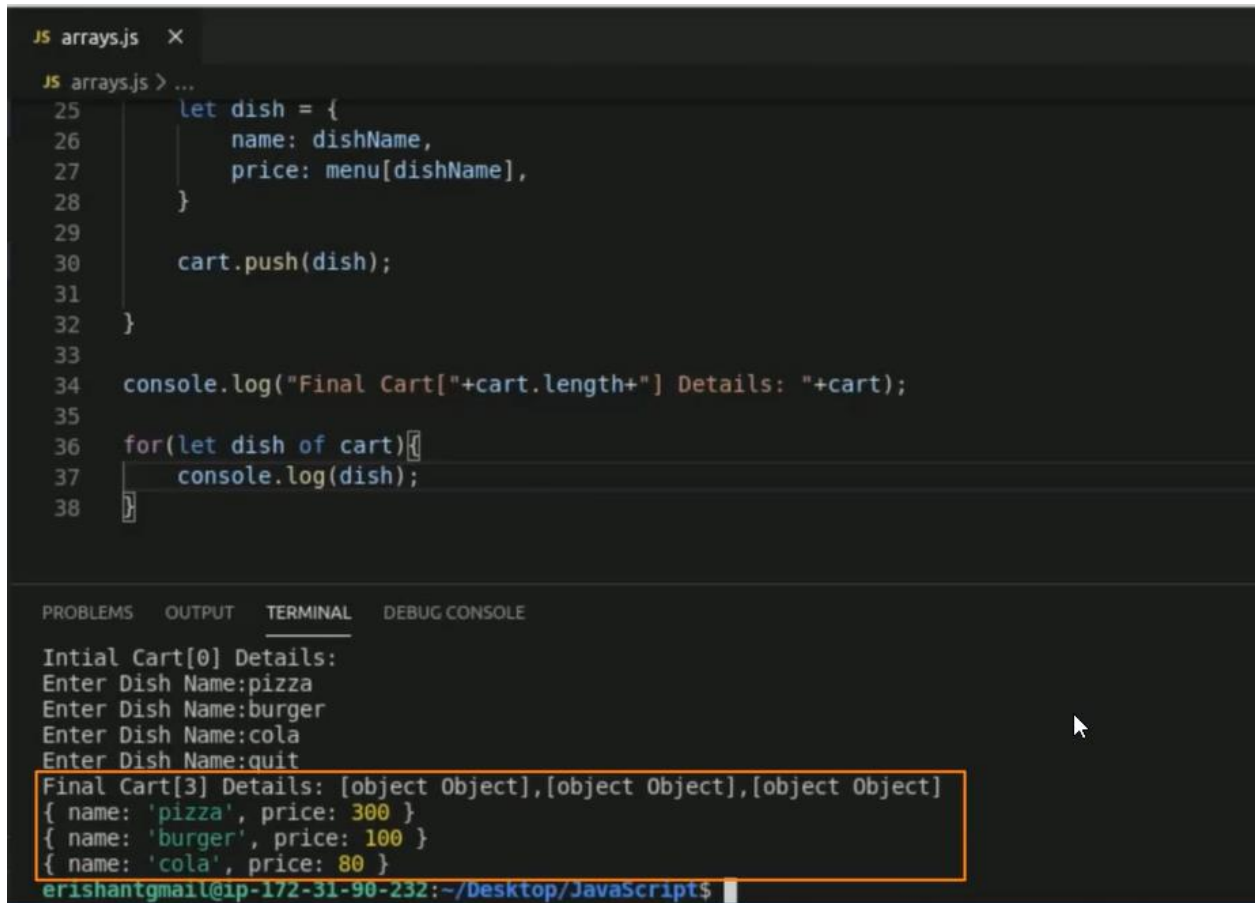
Enter Your Choice:pizza
Your choice: pizza
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript\$ node arrays.js
Initial Cart[0] Details:
Enter Dish Name:pizza
Enter Dish Name:fries
Enter Dish Name:cola
Enter Dish Name:quit
Final Cart[3] Details: [object Object],[object Object],[object Object]
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript\$

The user input on the console included three dishes: **pizza**, **fries**, and **cola**, which were successfully added to the cart.

2.5 Use a **for-in loop** to iterate through the **cart's** values. Log the name and price of each dish in the cart using **console.log()**

```
JS arrays.js X
JS arrays.js > ...
25     let dish = {
26         name: dishName,
27         price: menu[dishName]
28     }
29     cart.push(dish);
30
31
32 }
33
34 console.log("Final Cart["+cart.length+"] Details: "+cart);
35 for(let dish in cart){
36     console.log(dish.name+" "+dish.price);
37 }
38
```


2.6 Rerun the program and observe that both the dish name and price are printed on the console



```
JS arrays.js x
JS arrays.js > ...
25     let dish = {
26         name: dishName,
27         price: menu[dishName],
28     }
29
30     cart.push(dish);
31
32 }
33
34 console.log("Final Cart["+cart.length+"] Details: "+cart);
35
36 for(let dish of cart){
37     console.log(dish);
38 }
```

PROBLEMS OUTPUT **TERMINAL** DEBUG CONSOLE

```
Initial Cart[0] Details:
Enter Dish Name:pizza
Enter Dish Name:burger
Enter Dish Name:cola
Enter Dish Name:quit
Final Cart[3] Details: [object Object],[object Object],[object Object]
{ name: 'pizza', price: 300 }
{ name: 'burger', price: 100 }
{ name: 'cola', price: 80 }
erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$
```

By following the above steps, you have successfully demonstrated how to create a shopping cart, add dishes to the cart, and display the contents using JavaScript arrays.