

## Lesson 6 Demo 1

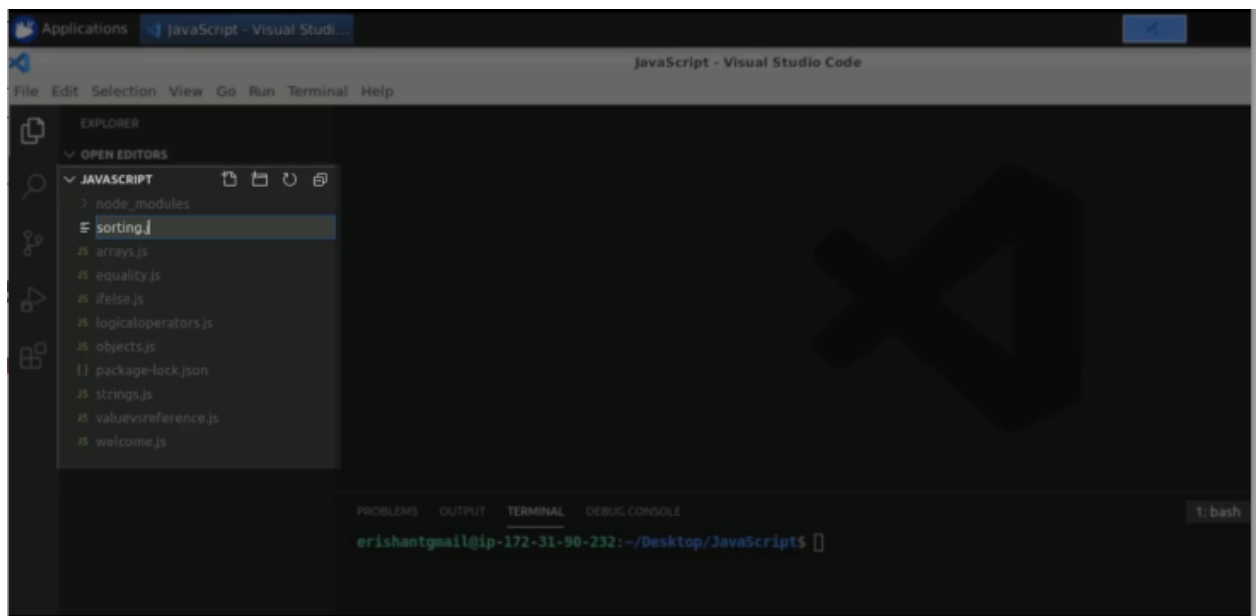
### Creating Function to Sort the Product List Based on the Price

**Objective:** To create function to sort the product list based on the price

**Prerequisites:** None

#### Steps to perform:

1. Create a file named 'sorting.js'.



2. Create a variable called 'products'.

```

1 let products = [
2
3
4
5 ]

```

3. Create an object with a name and price.

```

1 let products = [
2   {
3     name: 'Adidas Alphabounce',
4     price: 5000
5   },
6 ]

```

4. Create some more objects with different names and prices.

```

1  products = [
2    {
3      name: 'Sandisk USB',
4      price: 300
5    },
6    {
7      name: 'Adidas Ultraboot',
8      price: 8000
9    },
10   {
11     name: 'Samsung LED TV',
12     price: 50000
13   },
14   {
15     name: 'Cadbury 5 Star',
16     price: 10
17   }
18 ]
19
20
21

```

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js

```

- Print the array using the print array function using for loop.

```

19   name: 'Cadbury 5 Star',
20   price: 10
21 },
22 ]
23
24 function printArray(array){
25   for(let item of array){
26     console.log(item);
27   }
28 }
29
30 printArray(products);

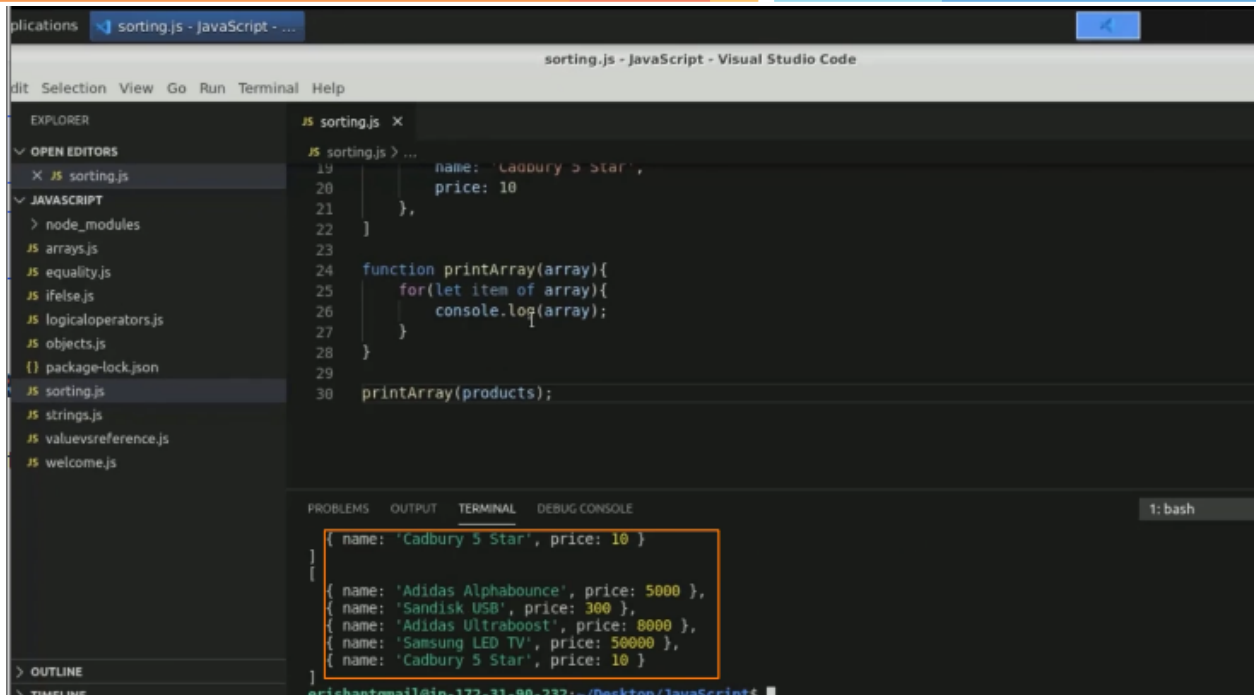
```

```

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```

- Run the program.



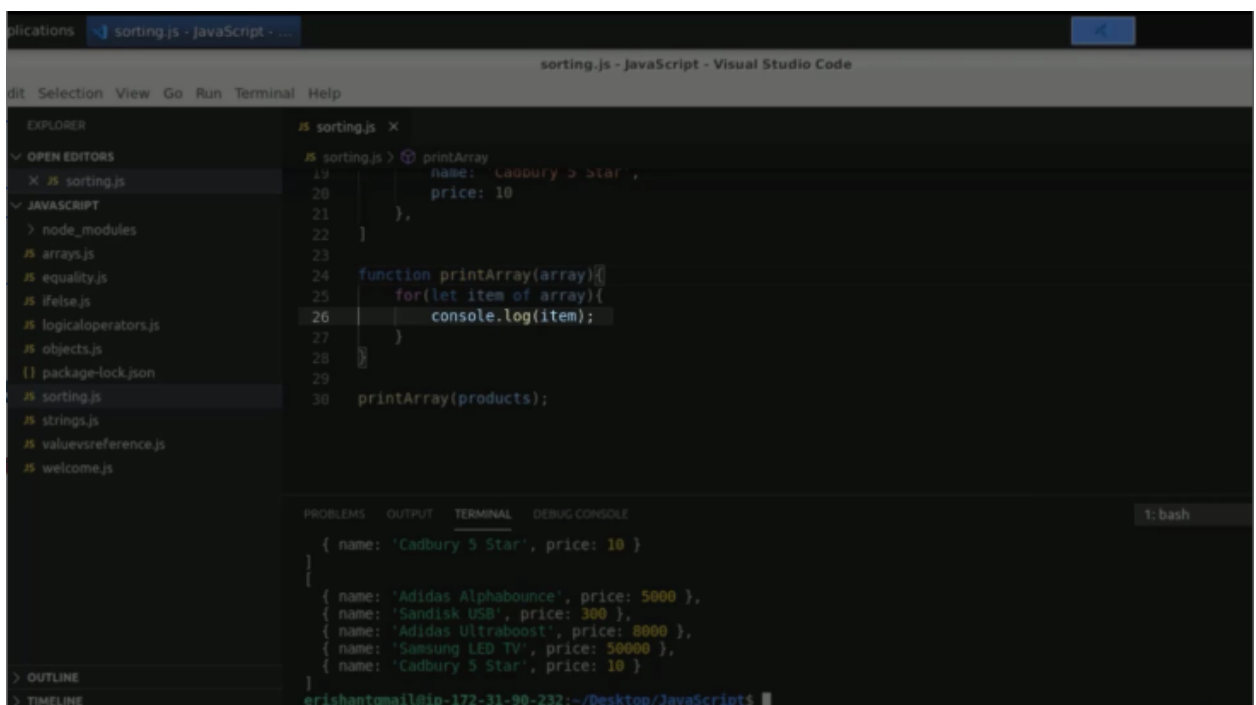
```

# sorting.js
19     name: 'Cadbury 5 Star',
20     price: 10
21   },
22   ],
23
24   function printArray(array){
25     for(let item of array){
26       console.log(array);
27     }
28   }
29
30   printArray(products);
  
```

```

{ name: 'Cadbury 5 Star', price: 10 }
[
  { name: 'Adidas Alphabounce', price: 5000 },
  { name: 'Sandisk USB', price: 300 },
  { name: 'Adidas Ultraboost', price: 8000 },
  { name: 'Samsung LED TV', price: 50000 },
  { name: 'Cadbury 5 Star', price: 10 }
]
  
```

7. Use a function, to sort based on price.



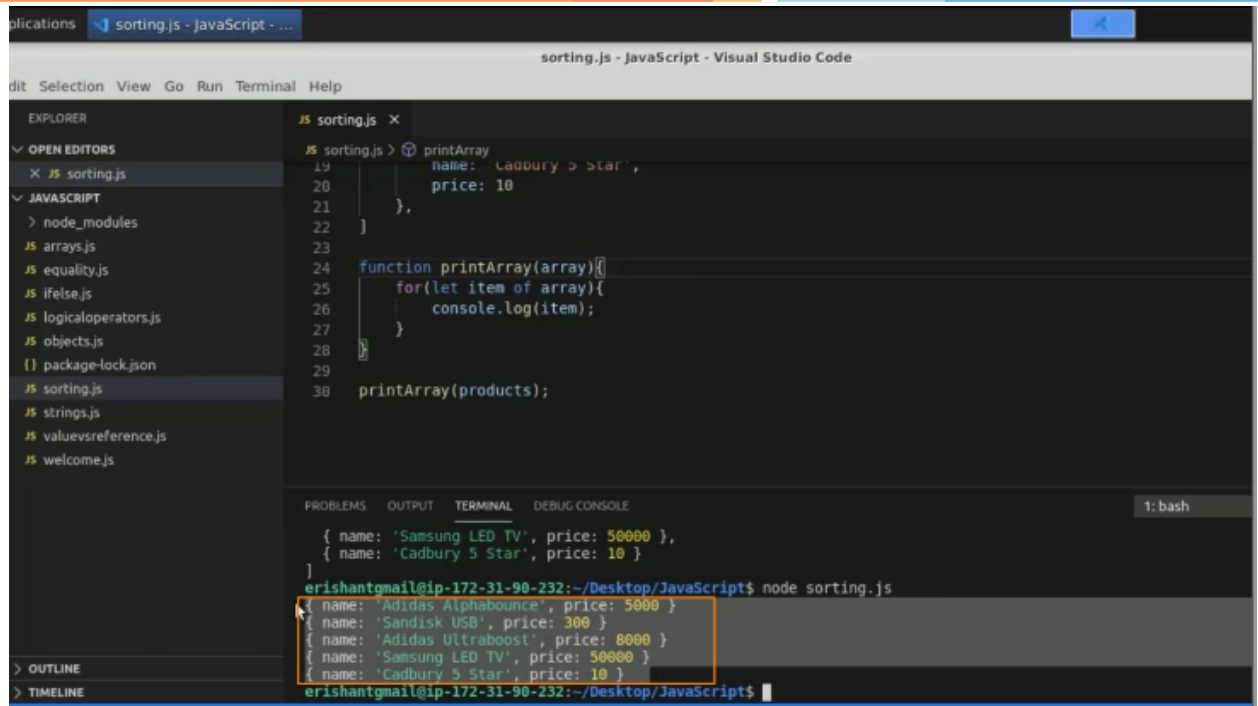
```

# sorting.js
19     name: 'Cadbury 5 Star',
20     price: 10
21   },
22   ],
23
24   function printArray(array){
25     for(let item of array){
26       console.log(item);
27     }
28   }
29
30   printArray(products);
  
```

```

{ name: 'Cadbury 5 Star', price: 10 }
[
  { name: 'Adidas Alphabounce', price: 5000 },
  { name: 'Sandisk USB', price: 300 },
  { name: 'Adidas Ultraboost', price: 8000 },
  { name: 'Samsung LED TV', price: 50000 },
  { name: 'Cadbury 5 Star', price: 10 }
]
  
```

8. The product one is:



The screenshot shows the Visual Studio Code editor with a file named 'sorting.js' open. The file contains the following code:

```

19  printArray
20      name: 'Cadbury 5 Star',
21      price: 10
22  },
23  ]
24
25  function printArray(array){
26      for(let item of array){
27          console.log(item);
28      }
29  }
30  printArray(products);

```

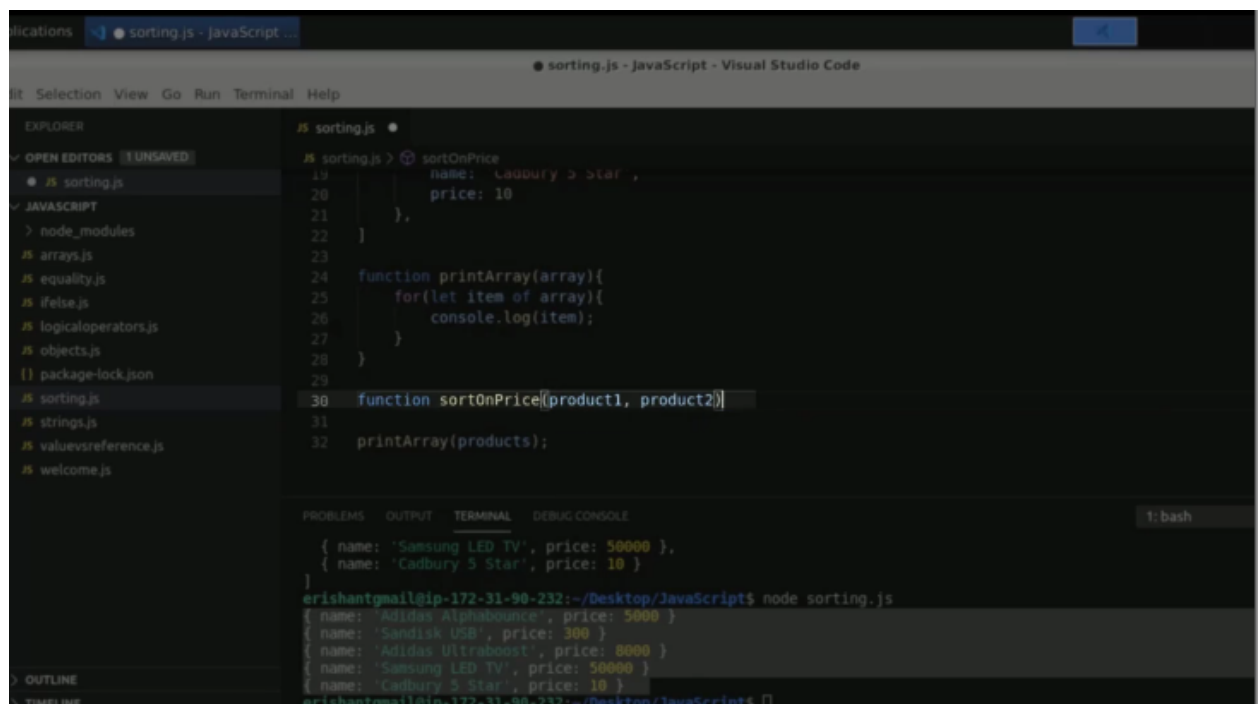
The terminal output shows the execution of 'node sorting.js' and the resulting JSON objects:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js
{ name: 'Samsung LED TV', price: 50000 },
{ name: 'Cadbury 5 Star', price: 10 }

```

9. Pass a function 'sortOnPrice'.



The screenshot shows the Visual Studio Code editor with the 'sorting.js' file. A new function 'sortOnPrice' has been added to the code:

```

30  function sortOnPrice(product1, product2){
31  }
32  printArray(products);

```

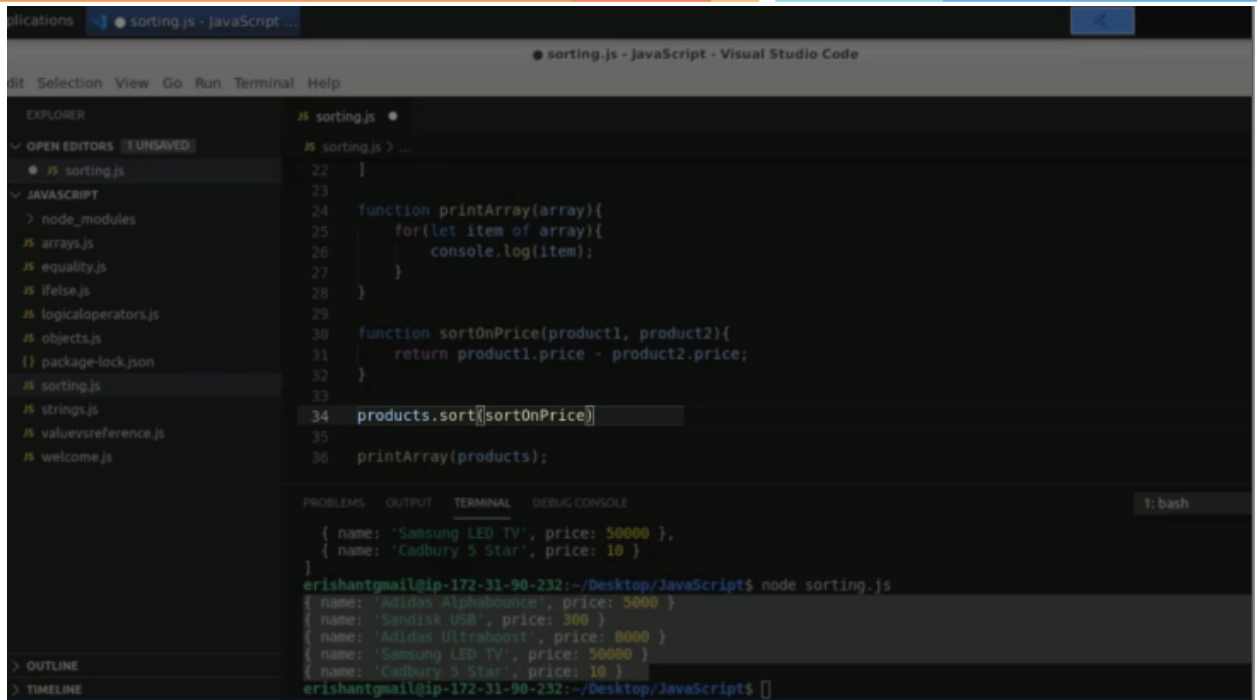
The terminal output shows the execution of 'node sorting.js' and the resulting JSON objects:

```

erishantgmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js
{ name: 'Samsung LED TV', price: 50000 },
{ name: 'Cadbury 5 Star', price: 10 }

```

10. Perform sort operation on custom objects.



```

// sorting.js
function printArray(array){
  for(let item of array){
    console.log(item);
  }
}

function sortOnPrice(product1, product2){
  return product1.price - product2.price;
}

products.sort(sortOnPrice);
printArray(products);

```

```

{ name: 'Samsung LED TV', price: 50000 },
{ name: 'Cadbury 5 Star', price: 10 }

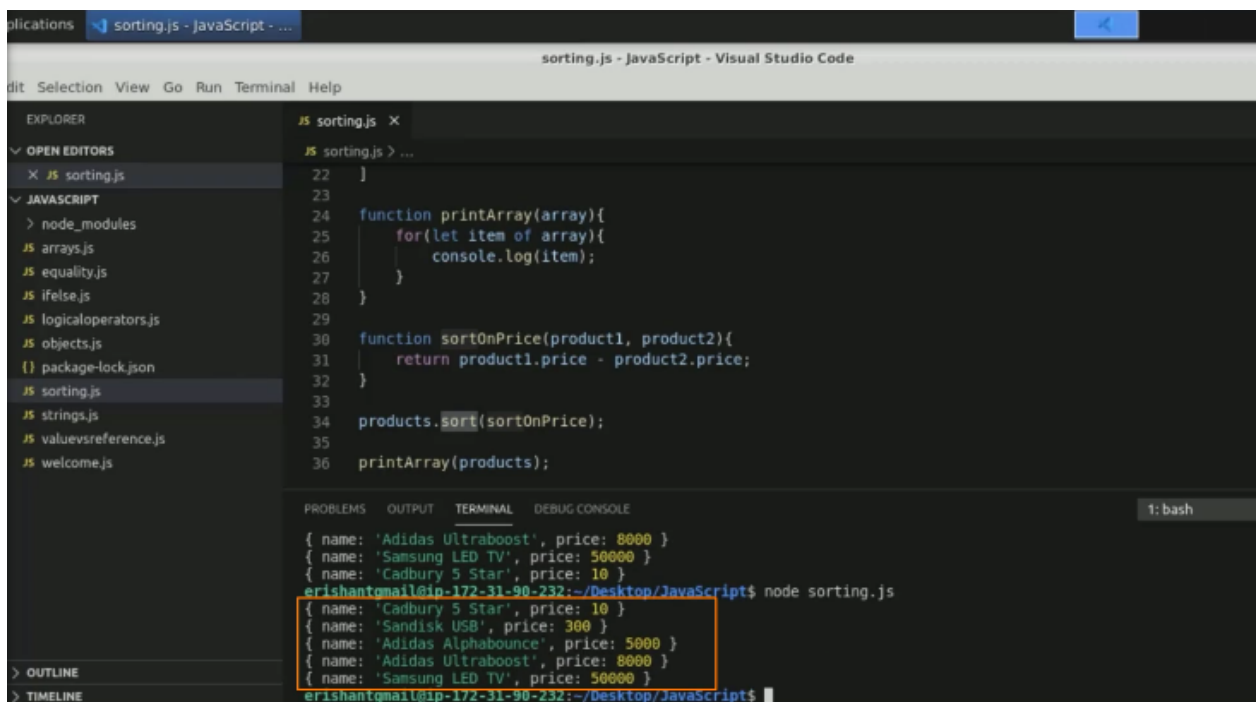
```

```

erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js
{ name: 'Adidas Alphabounce', price: 5000 }
{ name: 'Sandisk USB', price: 300 }
{ name: 'Adidas Ultraboost', price: 8000 }
{ name: 'Samsung LED TV', price: 50000 }
{ name: 'Cadbury 5 Star', price: 10 }
erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

11. Execute the code.



```

// sorting.js
function printArray(array){
  for(let item of array){
    console.log(item);
  }
}

function sortOnPrice(product1, product2){
  return product1.price - product2.price;
}

products.sort(sortOnPrice);
printArray(products);

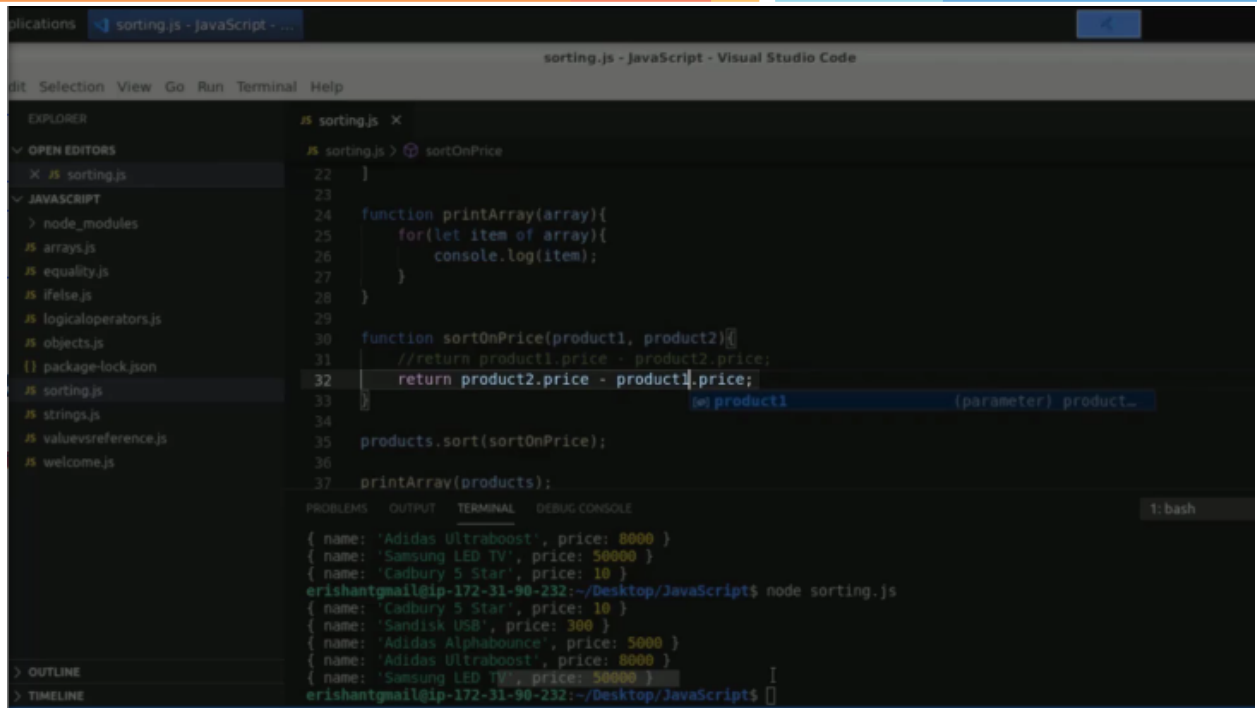
```

```

{ name: 'Adidas Ultraboost', price: 8000 }
{ name: 'Samsung LED TV', price: 50000 }
{ name: 'Cadbury 5 Star', price: 10 }
erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js
{ name: 'Cadbury 5 Star', price: 10 }
{ name: 'Sandisk USB', price: 300 }
{ name: 'Adidas Alphabounce', price: 5000 }
{ name: 'Adidas Ultraboost', price: 8000 }
{ name: 'Samsung LED TV', price: 50000 }
erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

12. Update the 'return' statement.

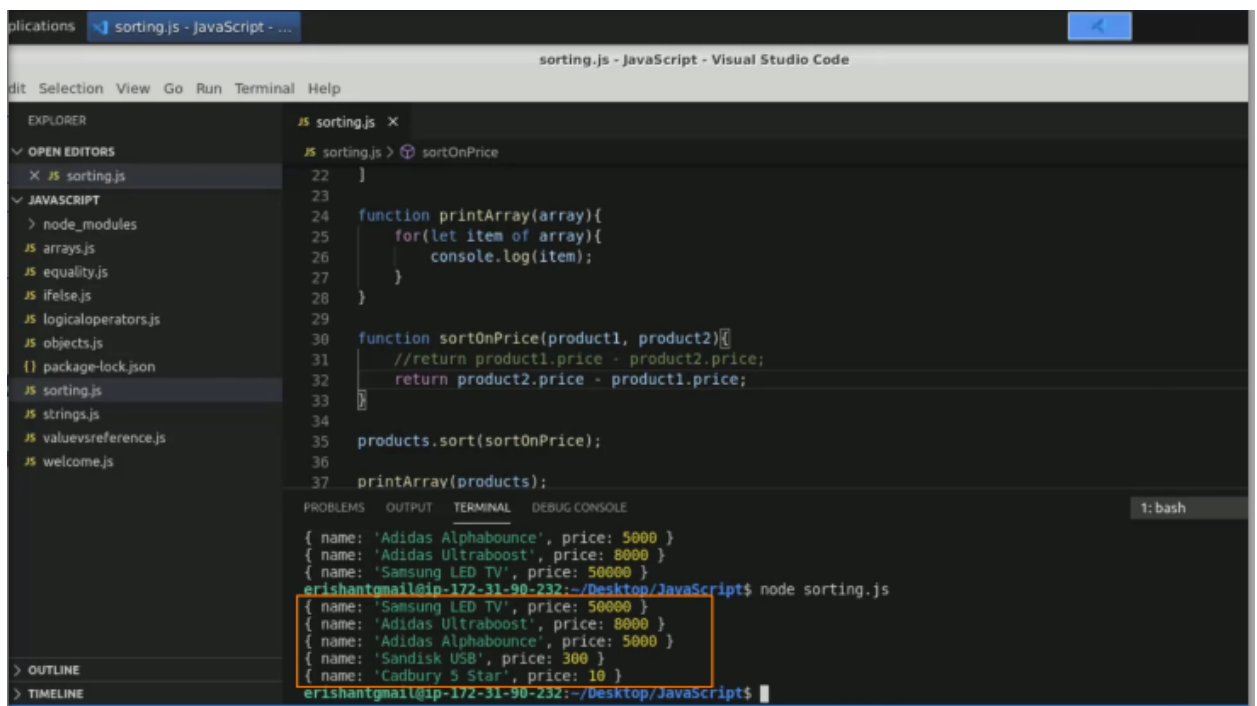


```

175  applications  sorting.js - JavaScript - ...
176  sorting.js - JavaScript - Visual Studio Code
177  Edit Selection View Go Run Terminal Help
178  EXPLORER
179  OPEN EDITORS
180  X JS sorting.js
181  JAVASCRIPT
182  > node_modules
183  JS arrays.js
184  JS equality.js
185  JS ifelse.js
186  JS logicaloperators.js
187  JS objects.js
188  {} package-lock.json
189  JS sorting.js
190  JS strings.js
191  JS valuesreference.js
192  JS welcome.js
193  OUTLINE
194  TIMELINE
195  JS sorting.js X
196  JS sorting.js > sortOnPrice
197  22 }
198  23
199  24 function printArray(array){
200  25     for(let item of array){
201  26         console.log(item);
202  27     }
203  28 }
204  29
205  30 function sortOnPrice(product1, product2){
206  31     //return product1.price - product2.price;
207  32     return product2.price - product1.price;
208  33 }
209  34
210  35 products.sort(sortOnPrice);
211  36
212  37 printArray(products);
213  PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE 1: bash
214  { name: 'Adidas Ultraboost', price: 8000 }
215  { name: 'Samsung LED TV', price: 50000 }
216  { name: 'Cadbury 5 Star', price: 10 }
217  erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js
218  { name: 'Cadbury 5 Star', price: 10 }
219  { name: 'Sandisk USB', price: 300 }
220  { name: 'Adidas Alphabounce', price: 5000 }
221  { name: 'Adidas Ultraboost', price: 8000 }
222  { name: 'Samsung LED TV', price: 50000 }
223  erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$

```

13. Re-run the code.



```

175  applications  sorting.js - JavaScript - ...
176  sorting.js - JavaScript - Visual Studio Code
177  Edit Selection View Go Run Terminal Help
178  EXPLORER
179  OPEN EDITORS
180  X JS sorting.js
181  JAVASCRIPT
182  > node_modules
183  JS arrays.js
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185  JS ifelse.js
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187  JS objects.js
188  {} package-lock.json
189  JS sorting.js
190  JS strings.js
191  JS valuesreference.js
192  JS welcome.js
193  OUTLINE
194  TIMELINE
195  JS sorting.js X
196  JS sorting.js > sortOnPrice
197  22 }
198  23
199  24 function printArray(array){
200  25     for(let item of array){
201  26         console.log(item);
202  27     }
203  28 }
204  29
205  30 function sortOnPrice(product1, product2){
206  31     //return product1.price - product2.price;
207  32     return product1.price - product2.price;
208  33 }
209  34
210  35 products.sort(sortOnPrice);
211  36
212  37 printArray(products);
213  PROBLEMS OUTPUT TERMINAL DEBUG CONSOLE 1: bash
214  { name: 'Adidas Alphabounce', price: 5000 }
215  { name: 'Adidas Ultraboost', price: 8000 }
216  { name: 'Samsung LED TV', price: 50000 }
217  erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$ node sorting.js
218  { name: 'Samsung LED TV', price: 50000 }
219  { name: 'Adidas Ultraboost', price: 8000 }
220  { name: 'Adidas Alphabounce', price: 5000 }
221  { name: 'Sandisk USB', price: 300 }
222  { name: 'Cadbury 5 Star', price: 10 }
223  erishant@gmail@ip-172-31-90-232:~/Desktop/JavaScript$

```