

FileEditSelectionViewGoRunTerminalHelp

js01.js - JavaScript\_HandsOn01 - Visual Studio Code

EXPLORER

OPEN EDITORS

JAVASCRIPT\_HANDSON01

OUTLINE

TIMELINE

JS js01.js

JS js01.js > ...

1

//Create a Js file that will show different Data Types(Number, String, Object). Used

typeof keyword to show the data types.

2

const numberVar = 20;

3

console.log("Number: ", numberVar, typeof numberVar);

4

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Number: 20 number

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01>

master\*

Ln 4, Col 1

Spaces: 4

UTF-8

CRLF

Babel JavaScript

Go Live

Go Live

Prettier

Type here to search

zoom

FileEditSelectionViewGoRunTerminalHelp

js01.js - JavaScript\_HandsOn01 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js01.js

JAVASCRIPT\_HANDSON01

JS js01.js

OUTLINE

TIMELINE

JS js01.js

JS js01.js > ...

```
1 //Create a Js file that will show different Data Types(Number, String, Object). Used
  typeof keyword to show the data types.
2 const numberVar = 20;
3 const stringVar = [20, 40, 60];
4 console.log("Number: ", numberVar, typeof numberVar);
5 console.log("String: ", stringVar, typeof stringVar);
6
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

powershell

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01> node .\js01.js
Number: 20 number
String: [ 20, 40, 60 ] object
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01>

master\*

Ln 2, Col 22 Spaces: 4 UTF-8 CRLF { Babel JavaScript Go Live Go Live Prettier

Type here to search

4:42 PM 1/6/2023

FileEditSelectionViewGoRunTerminalHelp

js01.js - JavaScript\_HandsOn01 - Visual Studio Code

EXPLORER

OPEN EDITORS

Javascript\_HandsOn01

OUTLINE

TIMELINE

JS js01.js

JS js01.js > ...

```
1 //Create a Js file that will show different Data Types(Number, String, Object). Used
  typeof keyword to show the data types.
2 const numberVar = 20;
3 const stringVar = "20, 40, 60;"
4 console.log("Number: ", numberVar, typeof numberVar);
5 console.log("String: ", stringVar, typeof stringVar);
6
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

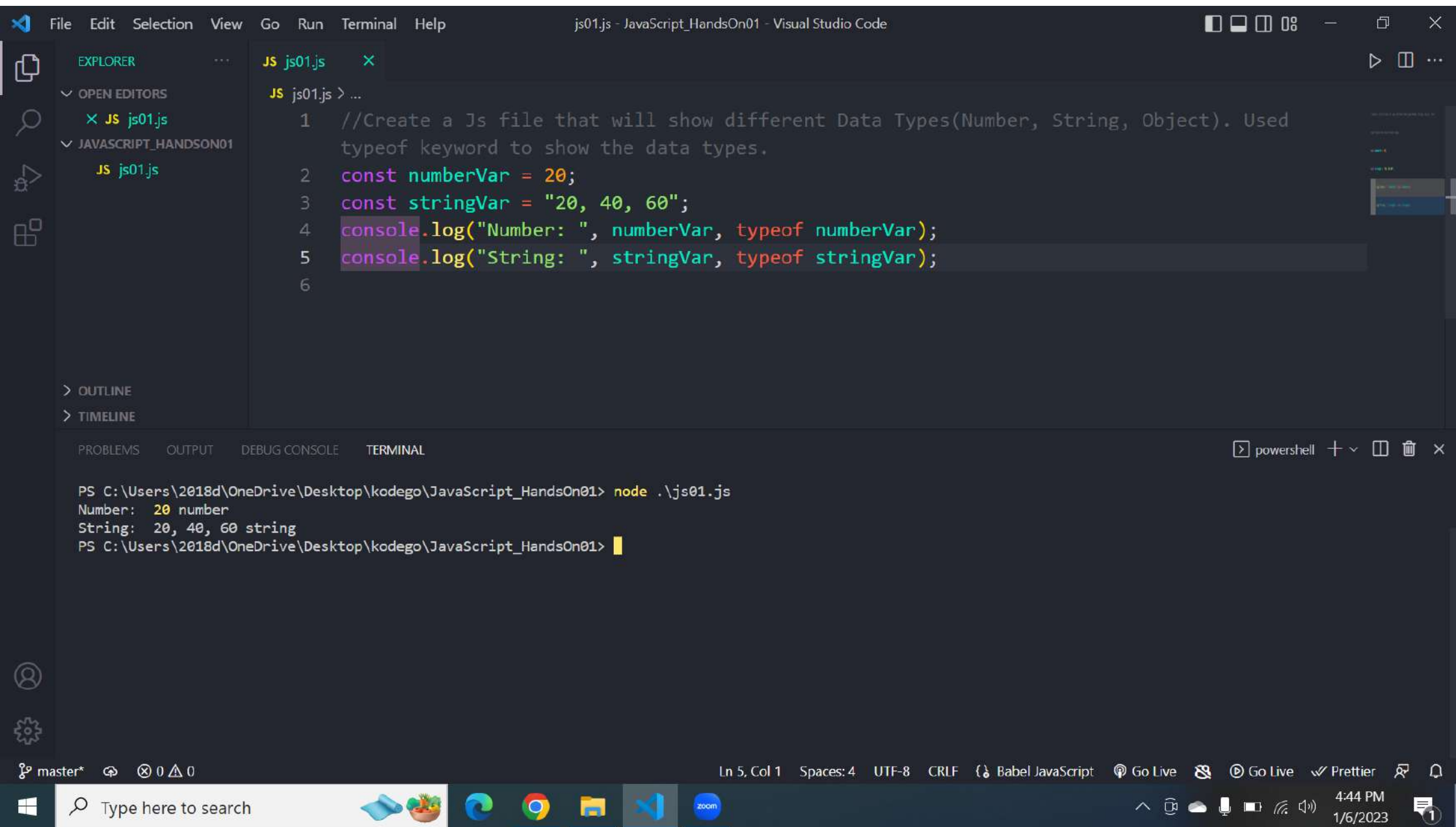
```
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01> node .\js01.js
Number: 20 number
String: 20, 40, 60; string
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01>
```

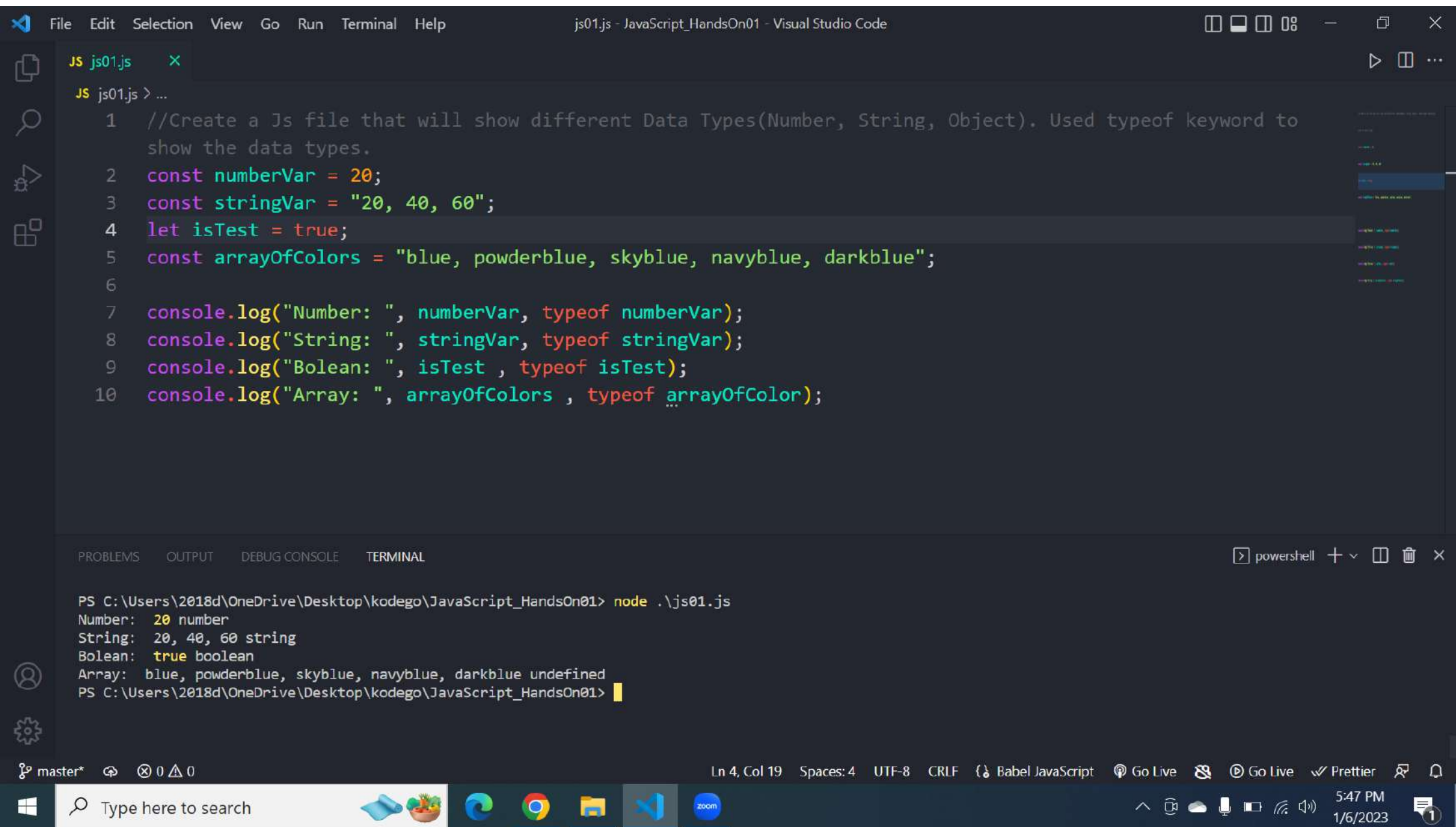
master\*

Ln 2, Col 22 Spaces: 4 UTF-8 CRLF { Babel JavaScript Go Live Go Live Prettier

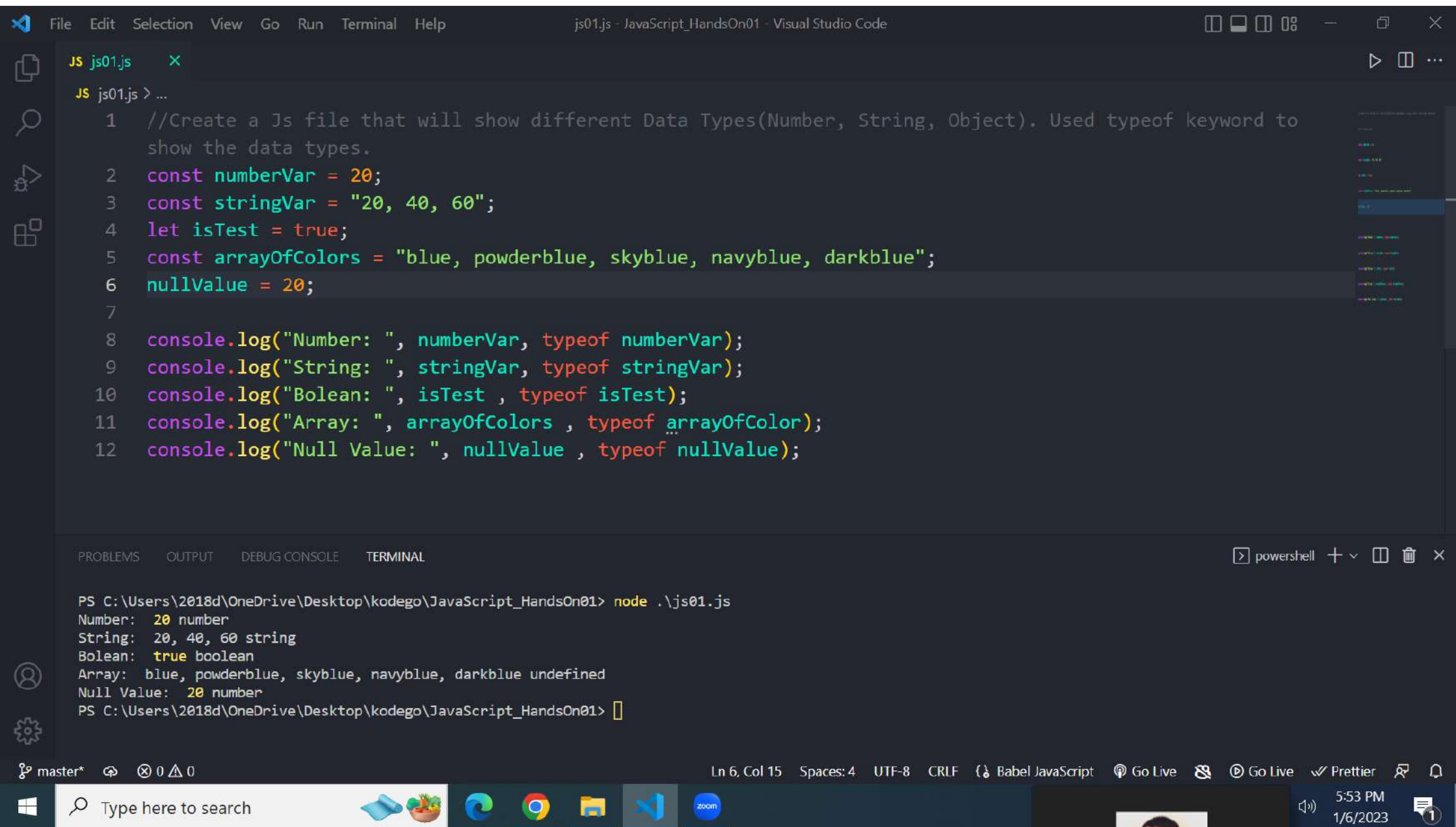
Type here to search

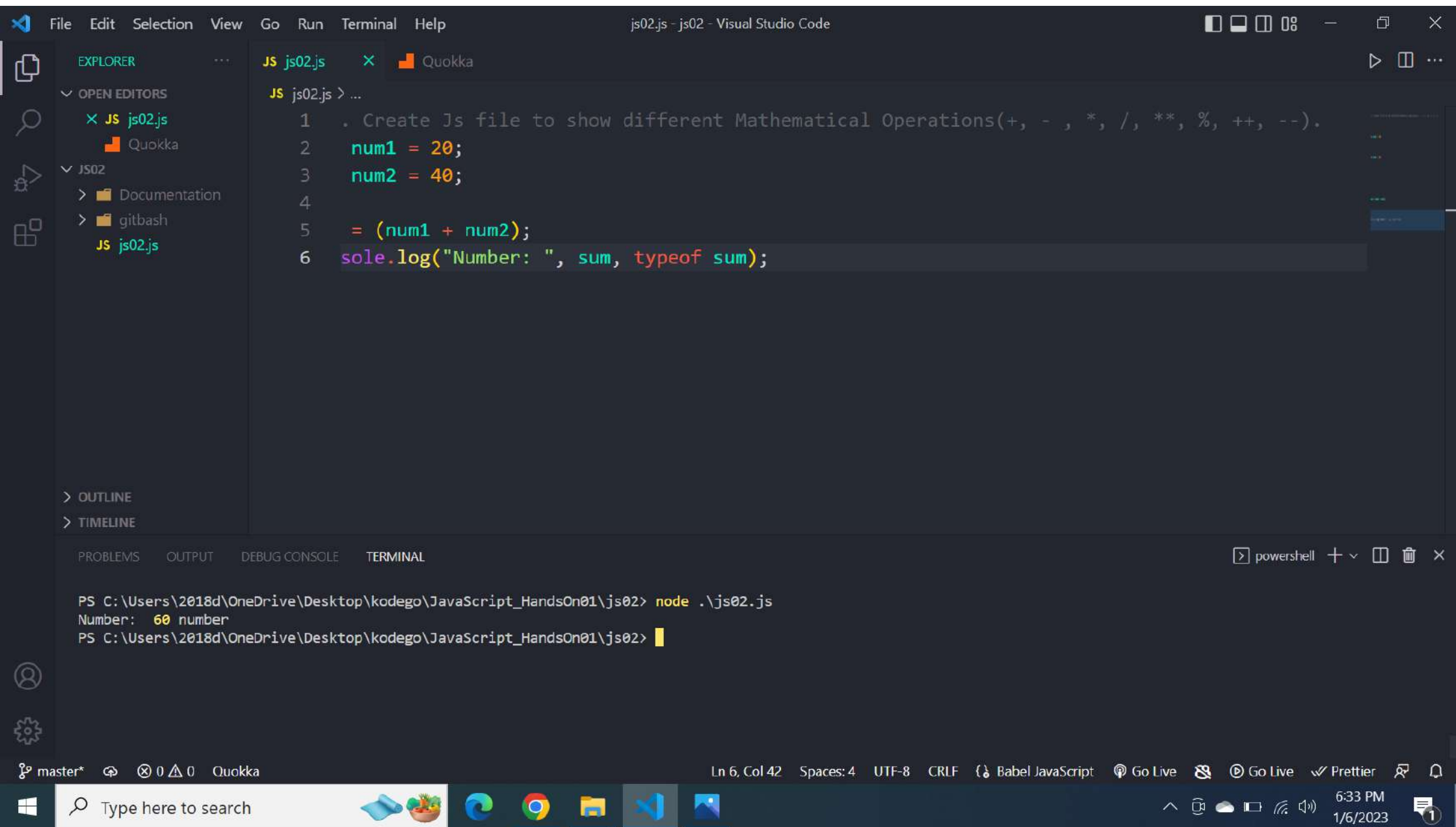
4:43 PM 1/6/2023











File Edit Selection View Go Run Terminal Help

js02.js - js02 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js02.js

JS02

Documentation

gitbash

JS js02.js

OUTLINE

TIMELINE

JS js02.js

1 //2. Create JS file to show different mathematical operations(+, -, \*, /, %, ++, --).

2 let num1 = 20;

3 let num2 = 40;

4

5 sum = (num1 + num2);

6 console.log("Number: ", sum, typeof sum);

7

8 difference = (num2 - num1);

9 console.log("Number: ", difference, typeof difference);

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02> node .\js02.js

Number: 60 number

Number: 20 number

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02>

master\*

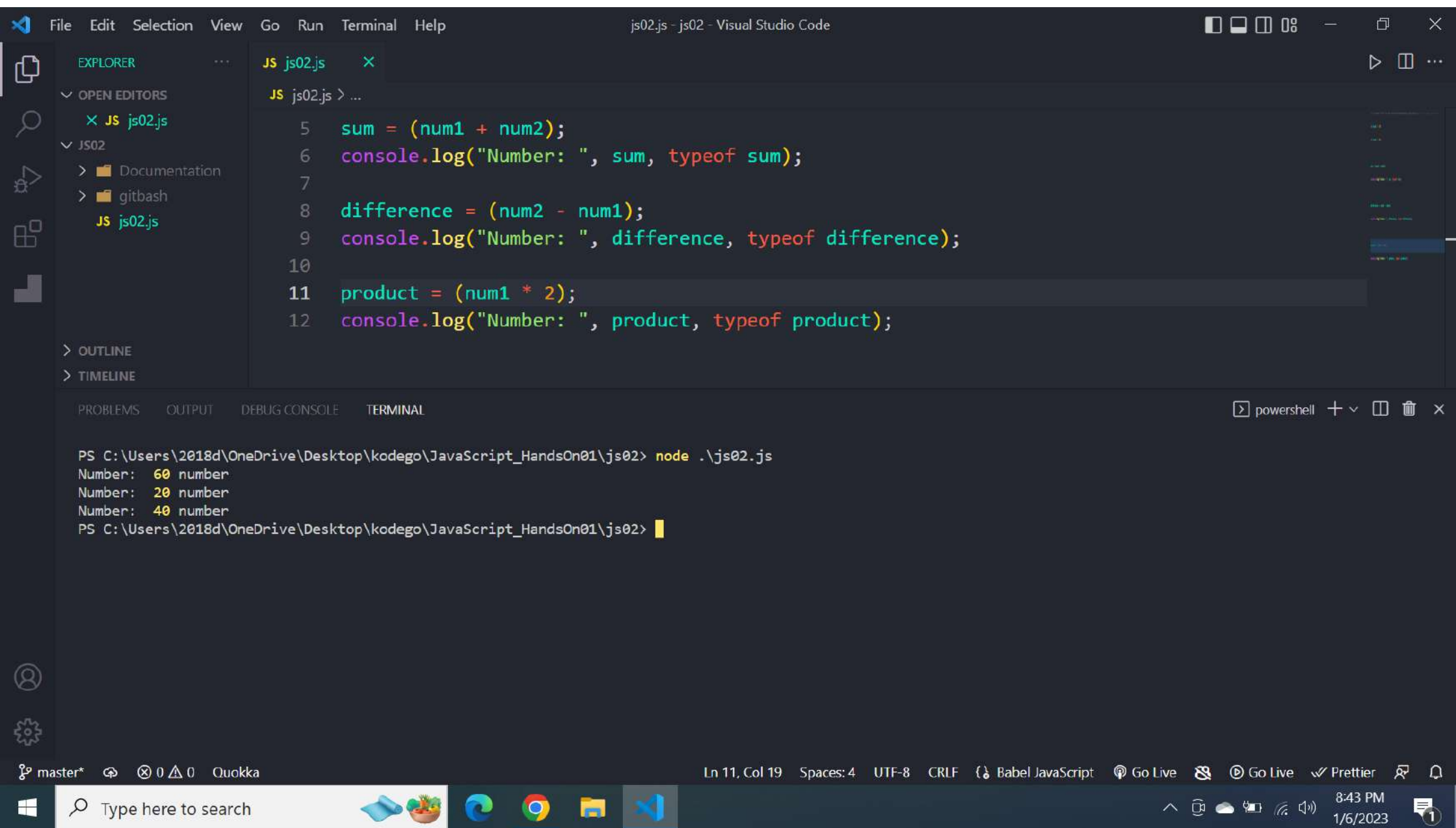
0 0 0 Quokka

Ln 9, Col 56 Spaces: 4 UTF-8 CRLF { Babel JavaScript Go Live Go Live Prettier

Type here to search

8:39 PM 1/6/2023





File Edit Selection View Go Run Terminal Help

js02.js - js02 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js02.js

JS02

Documentation

gitbash

js02.js

OUTLINE

TIMELINE

JS js02.js

JS js02.js > ...

```
1 //2. Create Js file to show different Mathematical Operations(+, - , *, /, **, %, ++, --).
2 let num1 = 20;
3 let num2 = 40;
4
5 sum = (num1 + num2);
6 console.log("Number: ", sum, typeof sum);
7
8 difference = (num2 - num1);
9 console.log("Number: ", difference, typeof difference);
10
11 product = (num1 * 2);
12 console.log("Number: ", product, typeof product);
13
14 quotient = (num2 / 2);
15 console.log("Number: ", quotient, typeof quotient);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Code

```
[Running] node "c:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js02\js02.js"
Number: 60 number
Number: 20 number
Number: 40 number
Number: 20 number
```

master\*

0 0 Quokka

Ln 13, Col 1 Spaces: 4 UTF-8 CRLF Babel JavaScript Go Live Go Live Prettier

Type here to search

8:48 PM 1/6/2023

FileEditSelectionViewGoRunTerminalHelp

js02.js - js02 - Visual Studio Code

EXPLOREROPEN EDITORSJS js02.jsJS02DocumentationgitbashJS js02.jsOUTLINETIMELINE

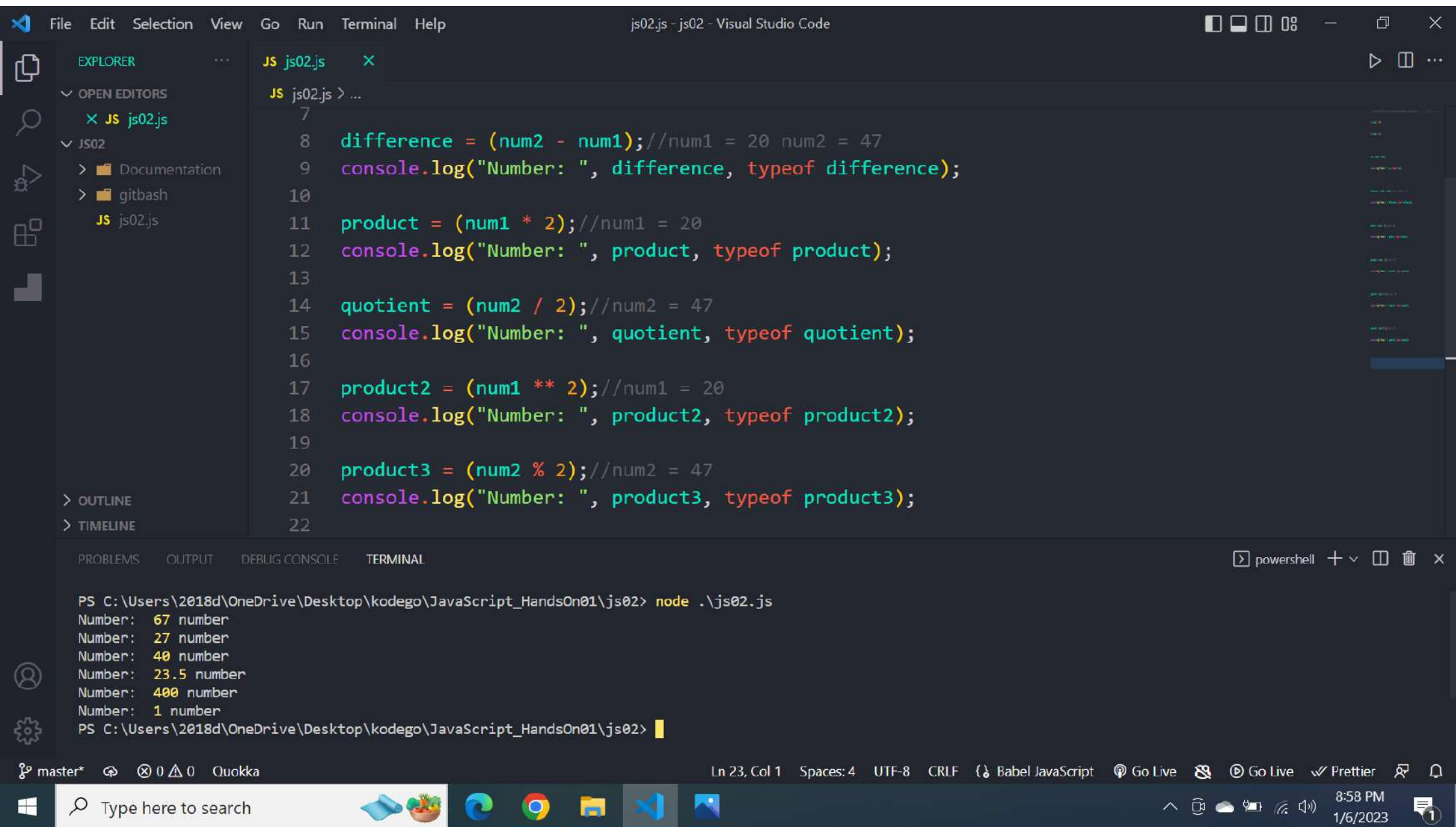
JS js02.js > ...  
4  
5 sum = (num1 + num2);  
6 console.log("Number: ", sum, typeof sum);  
7  
8 difference = (num2 - num1);  
9 console.log("Number: ", difference, typeof difference);  
10  
11 product = (num1 \* 2);  
12 console.log("Number: ", product, typeof product);  
13  
14 quotient = (num2 / 2);  
15 console.log("Number: ", quotient, typeof quotient);  
16  
17 product2 = (num1 \*\* 2);  
18 console.log("Number: ", product2, typeof product2);

PROBLEMSOUTPUTDEBUG CONSOLETERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02> node .\js02.js  
Number: 60 number  
Number: 20 number  
Number: 40 number  
Number: 20 number  
Number: 400 number  
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02>

Ln 18, Col 52Spaces: 4UTF-8CRLF{ } Babel JavaScriptGo LiveGo LivePrettier

8:51 PM1/6/2023





1 result in 1 file

JS js02.js

let num1 = 20;

JS js02.js

10

11 product = (num1 \* 2); // num1 = 20

12 console.log("Number: ", product, typeof product);

13

14 quotient = (num2 / 2); // num2 = 47

15 console.log("Number: ", quotient, typeof quotient);

16

17 product2 = (num1 \*\* 2); // num1 = 20

18 console.log("Number: ", product2, typeof product2);

19

20 product3 = (num2 % 2); // num2 = 47

21 console.log("Number: ", product3, typeof product3);

22

23 sum2 = ( ++ num2 ); // num2 = 47

24 console.log("Number: ", sum2, typeof sum2);

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02> node .\js02.js

Number: 67 number

Number: 27 number

Number: 40 number

Number: 23.5 number

Number: 400 number

Number: 1 number

Number: 48 number

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02>

Ln 23, Col 17

Spaces: 4

UTF-8

CRLF

{ } Babel JavaScript

Go Live

Go Live

Prettier

9:25 PM

1/6/2023



1 result in 1 file

JS js02.js

let num1 = 20;

JS js02.js

```
10
11 product = (num1 * 2); // num1 = 20
12 console.log("Number: ", product, typeof product);
13
14 quotient = (num2 / 2); // num2 = 47
15 console.log("Number: ", quotient, typeof quotient);
16
17 product2 = (num1 ** 2); // num1 = 20
18 console.log("Number: ", product2, typeof product2);
19
20 product3 = (num2 % 2); // num2 = 47
21 console.log("Number: ", product3, typeof product3);
22
23 difference2 = ( -- num2); // num2 = 47
24 console.log("Number: ", difference2, typeof difference2);
25
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02> node .\js02.js

Number: 67 number  
Number: 27 number  
Number: 40 number  
Number: 23.5 number  
Number: 400 number  
Number: 1 number  
Number: 46 number

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js02>

Ln 24, Col 55 Spaces: 4 UTF-8 CRLF { Babel JavaScript Go Live Go Live Prettier

9:27 PM 1/6/2023

js03.js - js03 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js03.js

JS03

Documentation

gitbash

JS js03.js

OUTLINE

TIMELINE

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

powershell

```
1 //Create Js File to show
different Assignment
Operators (=, +=, -=, *=, /
=, %=, **=).
2
3 let num1 = 20;
4 let num2 = 47;
5
6 num2 = num1 + 27; //num1 =
20
7 console.log("Number: ",
num2, 'Assignment operator
using "=" ');
8
```

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>  
node .\js03.js  
Number: 47 Assignment operator using "="  
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>

JavaScript Assignment Operators

Assignment operators assign values to JavaScript variables.

Operator	Example	Same As
=	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y
**=	x **= y	x = x ** y

Shift Assignment Operators

File Edit Selection View Go Run ... js03.js - js03 - Visual Stu...

EXPLORER

OPEN EDITORS

JS js03.js

JS03

Documentation

gitbash

js03.js

OUTLINE

TIMELINE

JS js03.js

JS js03.js > ...

let num1 = 20;

let num2 = 47;

num2 = (num1 + 27); // num1 = 20

console.log("Number: ", num2,

'Assignment operator using "="');

num1 = (num1 + num2); // num1 = 20

console.log("Number: ", num1,

'Assignment operator using "+="');

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

powershell

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03> node .\js03.js

Number: 47 Assignment operator using "="

Number: 67 Assignment operator using "+="

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>

8 items 1 item selected 237 KB Always available

Data x JavaScript x JavaScript x +

62%

w3schools.com/js/js\_assignment.asp

Gmail YouTube Maps Learn to Code - F... WD37 - Full-Stack...

HTML CSS JAVASCRIPT

JavaScript Assignment Operators

Assignment operators assign values to JavaScript variables.

Operator	Example	Same As
=	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y
**=	x **= y	x = x ** y

Shift Assianment Operators

10:54 PM 1/6/2023



File Edit Selection View Go Run ... js03.js - js03 - Visual Stud... 08

EXPLORER

OPEN EDITORS

JS js03.js

JS03

Documentation

gitbash

js03.js

OUTLINE

TIMELINE

JS js03.js

6 num2 = (num1 + 27); // num1 = 20

7 console.log("Number: ", num2,

8 'Assignment operator using "=" ');

9 num1 = (num1 + num2); // num1 = 20 num2

10 = 47

11 console.log("Number: ", num1,

12 'Assignment operator using "+=" ');

13 num1 = (num1 - num2); // num1 = 20 num2

14 = 47

15 console.log("Number: ", num1,

16 'Assignment operator using "-=" ');

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

powershell

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03> node .\js03.js

Number: 47 Assignment operator using "="

Number: 67 Assignment operator using "+="

Number: 20 Assignment operator using "-="

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>

8 items 1 item selected 237 KB Always available

Data x W JavaScript x YouTube JavaScript x +

100%

Data x W JavaScript x YouTube JavaScript x +

62%

JavaScript Assignment Operators

Assignment operators assign values to JavaScript variables.

Operator	Example	Same As
=	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y
**=	x **= y	x = x ** y

Shift Assignment Operators

File Edit Selection View Go Run ... js03.js - js03 - Visual Stud... 08

EXPLORER

OPEN EDITORS

JS js03.js

JS03

Documentation

gitbash

js03.js

OUTLINE

TIMELINE

JS js03.js

10 console.log("Number: ", num1, 'Assignment operator using "+=" ');

11

12 num1 = (num1 - num2); // num1 = 20 num2 = 47

13 console.log("Number: ", num1, 'Assignment operator using "-=" ');

14

15 num1 = (num1 \* num2); // num1 = 20 num2 = 47

16 console.log("Number: ", num1, 'Assignment operator using "\*=" ');

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

powershell

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03> node .\js03.js

Number: 47 Assignment operator using "="

Number: 67 Assignment operator using "+="

Number: 20 Assignment operator using "-="

Number: 940 Assignment operator using "\*="

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>

8 items 1 item selected 237 KB Always available

Data x W JavaScript x YouTube JavaScript x +

100%

Data x W JavaScript x YouTube JavaScript x +

62%

JavaScript Assignment Operators

Assignment operators assign values to JavaScript variables.

Operator	Example	Same As
=	x = y	x = y
+=	x += y	x = x + y
-=	x -= y	x = x - y
*=	x *= y	x = x * y
/=	x /= y	x = x / y
%=	x %= y	x = x % y
**=	x **= y	x = x ** y

Shift Assignment Operators



Visual Studio Code interface showing a JavaScript file named `js03.js` and its execution output in the terminal.

**File Explorer (Left Panel):**

- EXPLORED
- OPEN EDITORS
  - JS js03.js
- JS03
- OUTLINE
- TIMELINE

**Code Editor (Main Area):**

```
JS js03.js > ...
10 console.log( Number: , num1, Assignment operator using += );
11
12 num1 = (num1 - num2); // num1 = 20 num2 = 4
13 console.log("Number: ", num1, 'Assignment operator using "-=" ');
14
15 num1 = (num1 * num2); // num1 = 20 num2 = 4
16 console.log("Number: ", num1, 'Assignment operator using "*=" ');
17
18 num1 = (num1 / num2); // num1 = 20 num2 = 4
19 console.log("Number: ", num1, 'Assignment operator using "/=" ');
20
21 num1 = (num1 % num2); // num1 = 20 num2 = 4
22 console.log("Number: ", num1, 'Assignment operator using "%=" ');
23
24 num1 = (num1 ** num2); // num1 = 20 num2 = 4
25 console.log("Number: ", num1, 'Assignment operator using "**=" ');
```

**Terminal (Bottom Panel):**

PowerShell

```
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js03> node .\js03.js
Number: 47 Assignment operator using "="
Number: 67 Assignment operator using "+="
Number: 20 Assignment operator using "-="
Number: 940 Assignment operator using "*="
Number: 20 Assignment operator using "/="
Number: 20 Assignment operator using "%="
Number: 1.40737488355328e+61 Assignment operator using "**="
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js03>
```

**Status Bar (Bottom):**

Ln 26, Col 1 Spaces: 4 UTF-8 CRLF { } Babel JavaScript Go Live Prettier

**Taskbar (Bottom):**

Windows Start button, Search bar (Type here to search), Taskbar icons (File Explorer, Chrome, VS Code, etc.), System tray (Clock: 11:54 PM 1/6/2023, Network, Volume, etc.).

File

Edit

Selection

View

Go

Run

Terminal

Help

js03.js - js03 - Visual Studio Code

EXPLORES

OPEN EDITORS

JS js03.js

JS03

OUTLINE

TIMELINE

JS js03.js

JS js03.js > ...

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

num2 = (num1 + 27); // num1 = 20

console.log("Number: ", num2, 'Assignment operator using "=" ');

num1 = (num1 + num2); // num1 = 20 num2 = 4

console.log("Number: ", num1, 'Assignment operator using "+=" ');

num1 = (num1 - num2); // num1 = 20 num2 = 4

console.log("Number: ", num1, 'Assignment operator using "-=" ');

num1 = (num1 \* num2); // num1 = 20 num2 = 4

console.log("Number: ", num1, 'Assignment operator using "\*=" ');

num1 = (num1 / num2); // num1 = 20 num2 = 4

console.log("Number: ", num1, 'Assignment operator using "/=" ');

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

powershell

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03> node .\js03.js

Number: 47 Assignment operator using "="

Number: 67 Assignment operator using "+="

Number: 20 Assignment operator using "-="

Number: 940 Assignment operator using "\*="

Number: 20 Assignment operator using "/="

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>

Ln 25, Col 69 (230 selected)

Spaces: 4

UTF-8

CRLF

{ } Babel JavaScript

Go Live

Go Live

Prettier

Type here to search

11:57 PM

1/6/2023

File Edit Selection View Go Run Terminal Help

js03.js - js03 - Visual Studio Code

EXPLORE

OPEN EDITORS

JS js03.js

JS03

OUTLINE

TIMELINE

JS js03.js

JS js03.js > ...

```
7 console.log("Number: ", num2, 'Assignment operator using "=" ');
8
9 num1 = (num1 + num2); //num1 = 20 num2 = 4
10 console.log("Number: ", num1, 'Assignment operator using "+=" ');
11
12 num1 = (num1 - num2); //num1 = 20 num2 = 4
13 console.log("Number: ", num1, 'Assignment operator using "-=" ');
14
15 num1 = (num1 * num2); //num1 = 20 num2 = 4
16 console.log("Number: ", num1, 'Assignment operator using "*=" ');
17
18 num1 = (num1 / num2); //num1 = 20 num2 = 4
19 console.log("Number: ", num1, 'Assignment operator using "/=" ');
20
21 num1 = (num1 % num2); //num1 = 20 num2 = 4
22 console.log("Number: ", num1, 'Assignment operator using "%=" ');
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03> node .\js03.js
Number: 47 Assignment operator using "="
Number: 67 Assignment operator using "+="
Number: 20 Assignment operator using "-="
Number: 940 Assignment operator using "\*="
Number: 20 Assignment operator using "/="
Number: 20 Assignment operator using "%="
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js03>

Ln 21, Col 1 Spaces: 4 UTF-8 CRLF { Babel JavaScript Go Live Go Live Prettier

11:58 PM 1/6/2023



```
File Edit Selection View Go ... js04.js - js04 - Visual...
JS js04.js
JS js04.js > ...
1 //Create Js file to show different Logical Oper
2
3 let age = 11;
4 let legal = false;
5
6 if (age > 18 || legal){
7     console.log(`The age is legal to vote`);
8 }
9
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell + - x

```
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04> node .\js04.js
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04> 
```

There are four logical operators in JavaScript: `||` (OR), `&&` (AND), `!` (NOT), `??` (Nullish coalescing). Here we cover the first three, the `??` operator is in the next article.

Although they are called “logical”, they can be applied to values of any type, not only boolean. Their result can also be of any type.

See the details.

## (OR)

“OR” operator is represented with two vertical line symbols:

```
1 result = a || b;
```

In classical programming, the logical OR is meant to manipulate boolean values only. If any of its arguments are `true`, it returns `true`, otherwise it returns `false`.

In JavaScript, the operator is a little bit trickier and more powerful. But first, let’s see what happens with boolean values.

There are four possible logical combinations:

```
1 alert( true || true ); // true
2 alert( false || true ); // true
3 alert( true || false ); // true
4 alert( false || false ); // false
```

```
File Edit Selection View Go ... js04.js - js04 - Visual ...
JS js04.js
JS js04.js > ...
1 //Create Js file to show different Logical Opera
2
3 let age = 11; // nothing to print in terminal
4 let legal = false;
5
6 if (age > 18 || legal){
7     console.log(`The age is legal to vote`);
8 }
9
10
11
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell + v

```
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04> node .\js04.js
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04>
```

javascript.info/logical-operators

There are four logical operators in JavaScript: `||` (OR), `&&` (AND), `!` (NOT), `??` (Nullish coalescing). Here we cover the first three, the `??` operator is in the next article.

Although they are called “logical”, they can be applied to values of any type, not only boolean. Their result can also be of any type.

See the details.

## OR

The “OR” operator is represented with two vertical line symbols:

```
let result = a || b;
```

In classical programming, the logical OR is meant to manipulate boolean values only. If any of its operands are `true`, it returns `true`, otherwise it returns `false`.

In JavaScript, the operator is a little bit trickier and more powerful. But first, let's see what happens with boolean values.

There are four possible logical combinations:

```
1 alert( true || true ); // true
2 alert( false || true ); // true
3 alert( true || false ); // true
4 alert( false || false ); // false
```



```
File Edit Selection View Go ... js04.js - js04 - Visual ...
JS js04.js
JS js04.js > ...
1 //Create Js file to show different Logical
  Operators (&& , || , !).
2
3 // let age = 11; // nothing to print in
  terminal
4 let age = 21; // terminal print The age is
  legal to vote
5 let legal = false;
6
7 if (age > 18 || legal){
8   console.log(`The age is legal to vote`);
9 }
10
11
12

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell + -
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04> node .\js04.js
s04.js
s04.jsUsers\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04>
The age is legal to vote
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04> ]
```

JavaScript | Logical | JavaScript | JavaScript | +

javascript.info/logical-operators

Email YouTube Maps Learn to Code — F... WD37 - Full-Stack...

There are four logical operators in JavaScript: `||` (OR), `&&` (AND), `!` (NOT), `??` (Nullish coalescing). Here we cover the first three, the `??` operator is in the next article.

Although they are called “logical”, they can be applied to values of any type, not only boolean. Their result can also be of any type.

See the details.

## OR

The “OR” operator is represented with two vertical line symbols:

```
result = a || b;
```

In classical programming, the logical OR is meant to manipulate boolean values only. If any of its operands are `true`, it returns `true`, otherwise it returns `false`.

In JavaScript, the operator is a little bit trickier and more powerful. But first, let's see what happens with boolean values.

There are four possible logical combinations:

```
1 alert( true || true ); // true
2 alert( false || true ); // true
3 alert( true || false ); // true
4 alert( false || false ); // false
```

```
File Edit Selection View Go ... js04.js - js04 - Visual ...
JS js04.js
JS js04.js > ...
3 // let age = 11; // nothing to print in terminal
4 let age = 21; // terminal print The age is legal to vote
5 let legal = false;
6
7 //logical operator using || "OR"
8 if (age > 18 || legal){
9     console.log(`The age is legal to vote`);
10 }
11
12 //logical operator using && "AND"
13 if (age - 3 == 18 && legal == false){
14     console.log(`The age is still young to vote`);
15 }
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell + - [X]

```
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01> node js04.js
The age is legal to vote
The age is still young to vote
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js04> |
```

Focus Terminal  
[Alt] Split Terminal (Ctrl+Shift+5)

JavaScript | Logic | JavaScript | JavaScript | +

javascript.info/logical-operators

Sometimes, people use this feature to execute commands only if the condition on the left part is `truthy`.

## AND (&&)

AND operator is represented with two ampersands `&&`:

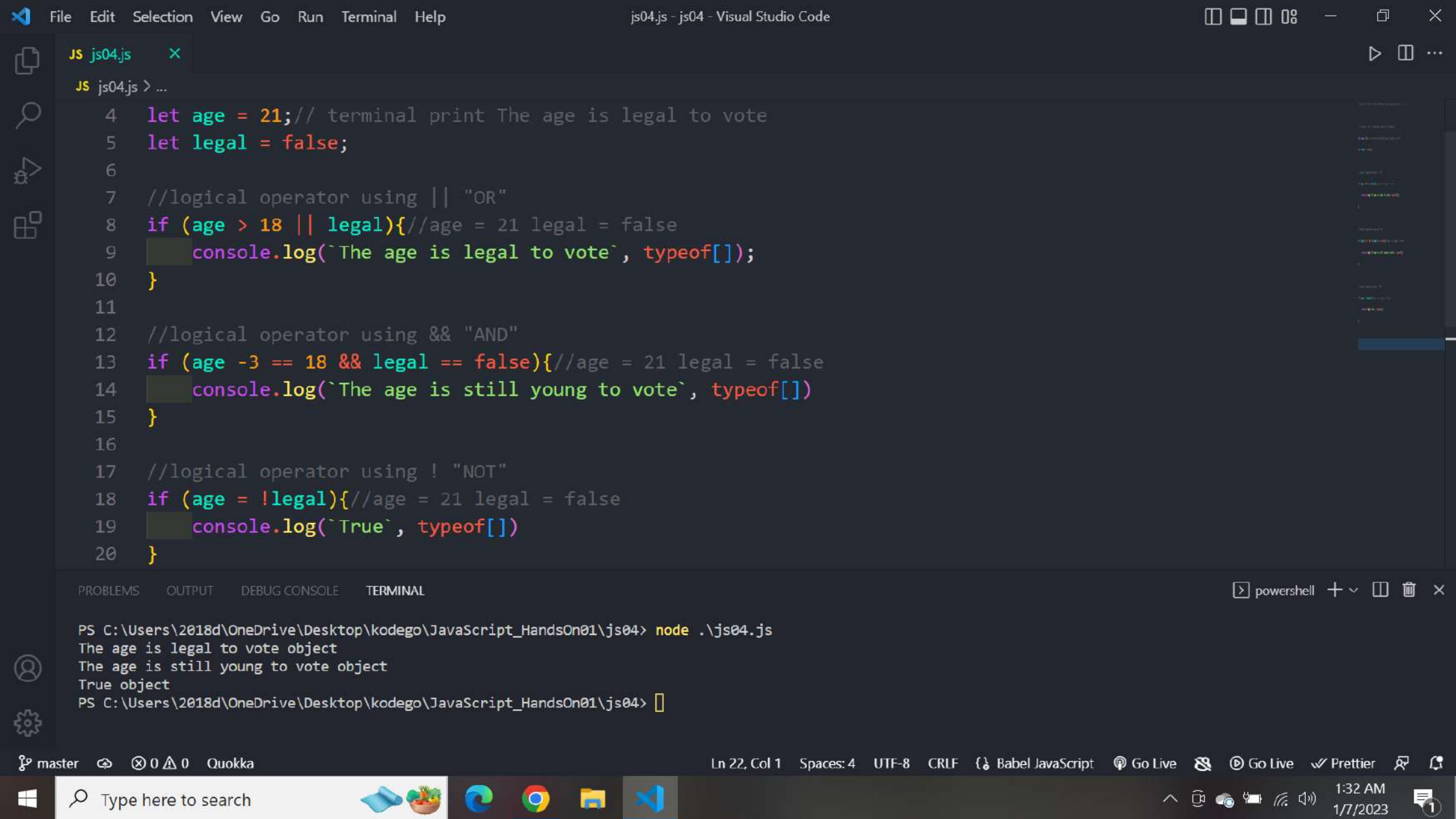
```
result = a && b;
```

In classical programming, AND returns `true` if both operands are `truthy` and `false` otherwise:

```
1 alert( true && true ); // true
2 alert( false && true ); // false
3 alert( true && false ); // false
4 alert( false && false ); // false
```

with `if`:

```
1 let hour = 12;
2 let minute = 30;
3
4 if (hour == 12 && minute == 30) {
5     alert( 'The time is 12:30' );
6 }
```





```
File Edit Selection View Go ... js05.js - js05 - Visual ...
JS js05.js
JS js05.js > ...
3 let age = 10;
4
5 if(age > 18){
6     console.log(`The age is legal to vote!`)
7 }else{
8     console.log(`The age ${age} is not legal
    to vote`);
9 }

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell + - x
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js05> node .\js05.js
The age 10 is not legal to vote
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js05>
```

Conditional x JavaScript D x JavaScript H x +

→ ↺ ↻ javascript.info/iframe

mail YouTube Maps Learn to Code — F... WD37 - Full-Stack...

## name of JavaScript

distance: 2

the `if..else` construct, write the code which asks: 'What is the "official" name of JavaScript?'

visitor enters "ECMAScript", then output "Right!", otherwise – output: "You don't know? Script!"

```
graph TD
    Begin([Begin]) --> Decision{What's the "official" name of JavaScript?}
    Decision -- ECMAScript --> Right([Right!])
    Decision -- Other --> Wrong([You don't know? Script!])
```

in new window

tion

```
File Edit Selection View Go ... js05.js - js05 - Visual ...
JS js05.js
JS js05.js > ...
3 let age = 10;
4
5 if(age > 18){
6     console.log(`The age is legal to vote!`)
7 }else{
8     console.log(`The age ${age} is not legal
    to vote`);
9 }
10
11 console.log(age < 18? true : false);

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL powershell + - x
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js05> node .\js05.js
The age 10 is not legal to vote
true
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js05>
```

Conditional x JavaScript D x JavaScript H x +

javascript.info/ifelse

mail YouTube Maps Learn to Code — F... WD37 - Full-Stack...

## name of JavaScript

stance: 2

the `if..else` construct, write the code which asks: 'What is the "official" name of JavaScript?'

visitor enters "ECMAScript", then output "Right!", otherwise – output: "You don't know? Script!"

```
graph TD
    Begin([Begin]) --> Question{What's the "official" name of JavaScript?}
    Question -- ECMAScript --> Right([Right!])
    Question -- Other --> Wrong([You don't know? Script!])
```

in new window

tion



FileEditSelectionViewGoRunTerminalHelp

js06.js - js06 - Visual Studio Code

JS js06.js

JS js06.js > ...

1

//Create Js file the has blank array, then push or assigned 5 elements inside the array

2

let fruits = []; //array is empty

3

4

fruits.push("saging", "mansanas", "mangga"); //push adds an element to the end

5

console.log(`fruits:`, fruits); //now array have a list

6

7

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js06> node .\js06.js

fruits: [ 'saging', 'mansanas', 'mangga' ]

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js06>

master

0 0 0

Quokka

Ln 5, Col 56

Spaces: 4

UTF-8

CRLF

Babel JavaScript

Go Live

Go Live

Prettier

4:09 PM

1/8/2023

FileEditSelectionViewGoRunTerminalHelp

js06.js - js06 - Visual Studio Code

JS js06.js

JS js06.js > ...

1 //Create Js file the has blank array, then push or assigned 5 elements inside the array

2 let fruits = []; //array is empty

3

4 fruits.push("saging", "mansanas", "mangga"); //push adds an element to the end

5 console.log(`fruits:`, fruits); //now array have a list

6

7 fruits.push("santol", "bayabas", "penya"); //push adds an element to the end

8 console.log(`fruits:`, fruits); //now array have 6 elements

9

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js06> node .\js06.js

fruits: [ 'saging', 'mansanas', 'mangga' ]

fruits: [ 'saging', 'mansanas', 'mangga', 'santol', 'bayabas', 'penya' ]

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js06>

Ln 8, Col 59

Spaces: 4

UTF-8

CRLF

{ Babel JavaScript

Go Live

Go Live

Prettier

4:11 PM

1/8/2023

JS js06.js

JS js06.js > ...

```
2 let fruits = []; //array is empty
3
4 fruits.push("saging", "mansanas", "mangga"); //push adds an element to the end
5 console.log(`fruits:`, fruits); //now array have a list
6
7 fruits.push("santol", "bayabas", "penya"); //push adds an element to the end
8 console.log(`fruits:`, fruits); //now array have 6 elements
9
10 fruits.pop(""); //takes an element from the end
11 console.log(`fruits:`, fruits); //penya is remove from the list
12
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

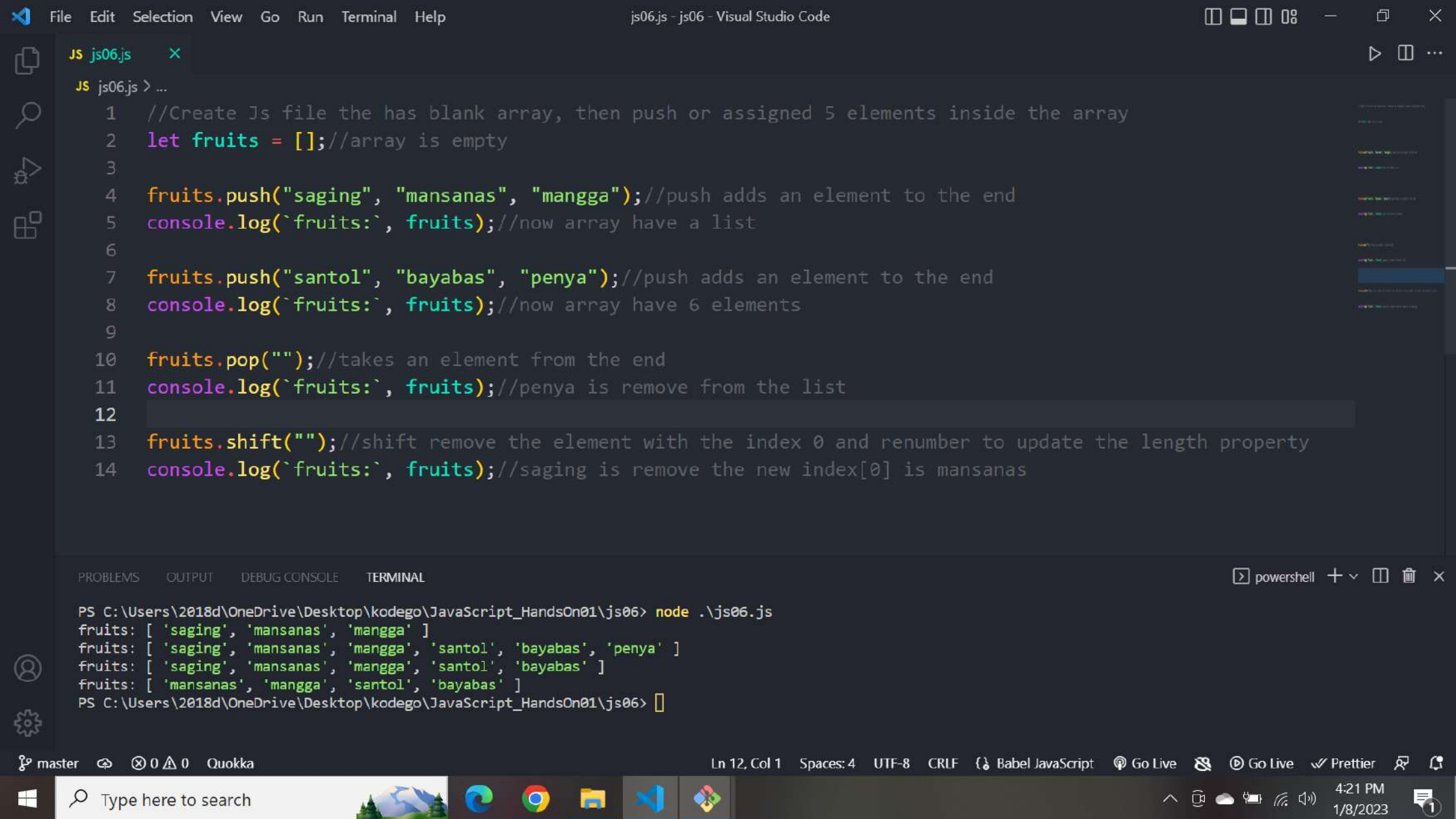
powershell + -

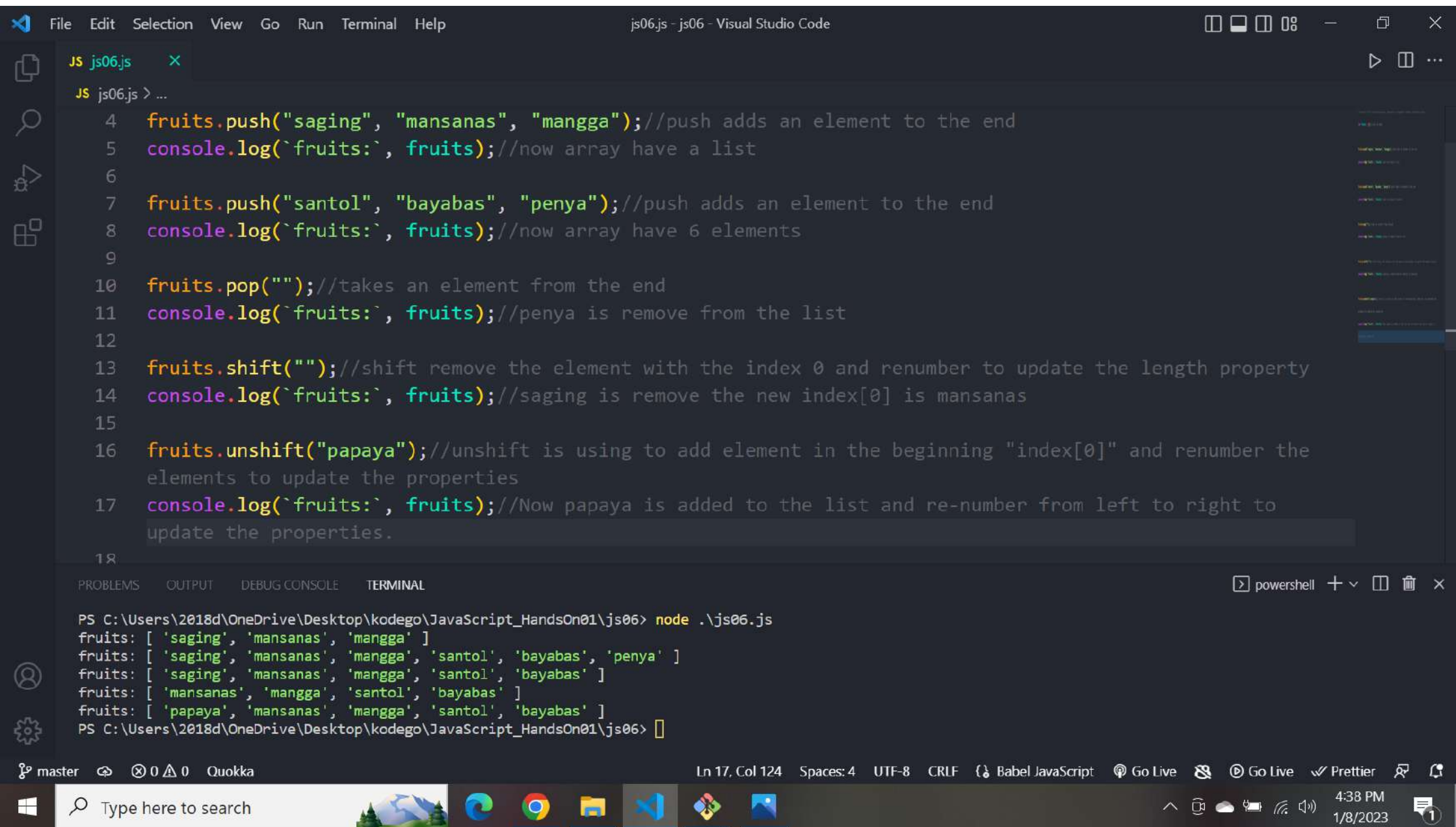
```
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js06> node .\js06.js
fruits: [ 'saging', 'mansanas', 'mangga' ]
fruits: [ 'saging', 'mansanas', 'mangga', 'santol', 'bayabas', 'penya' ]
fruits: [ 'saging', 'mansanas', 'mangga', 'santol', 'bayabas' ]
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js06>
```

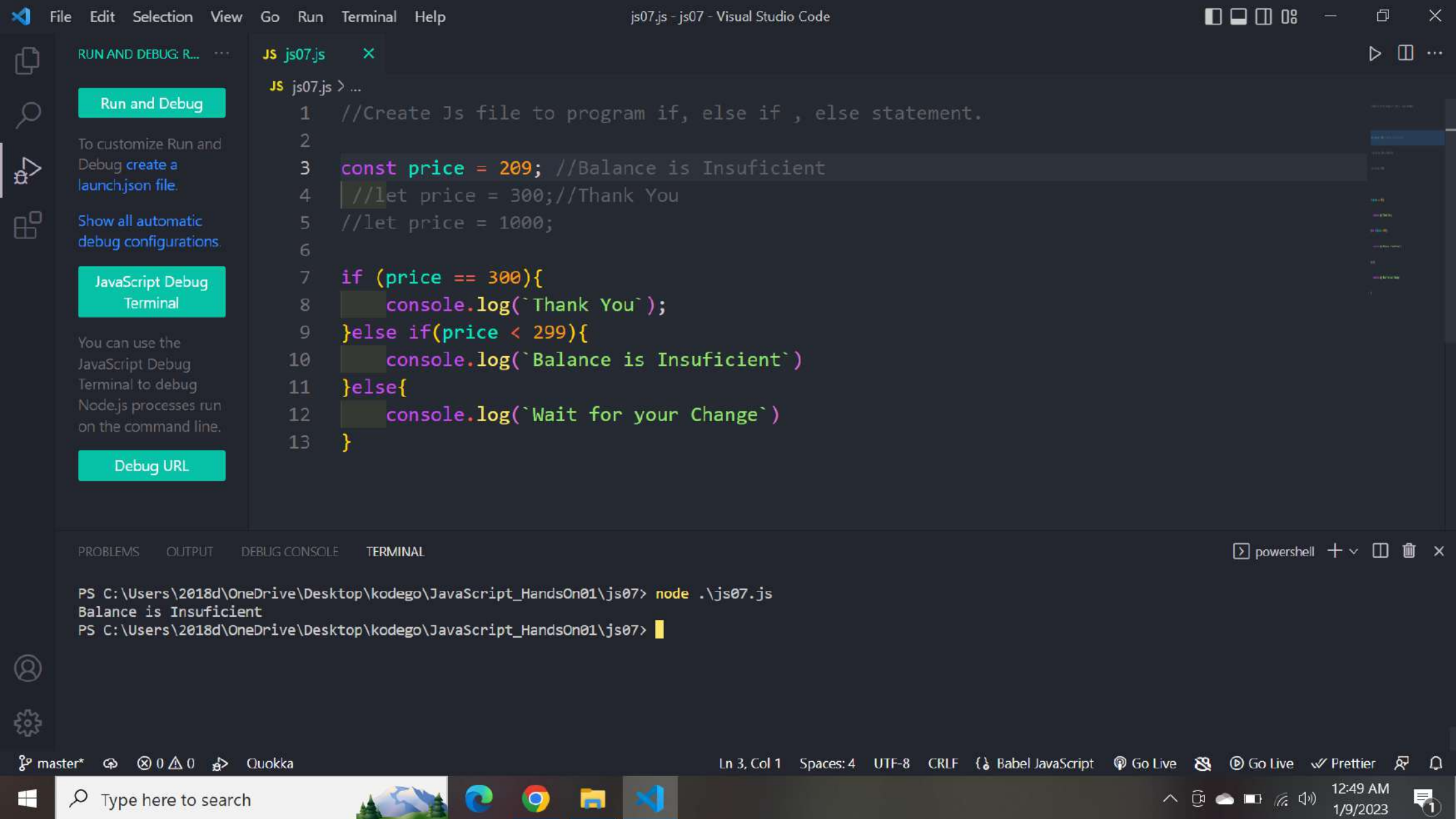
master 0 0 Quokka

Ln 11, Col 63 Spaces: 4 UTF-8 CRLF Babel JavaScript Go Live Go Live Prettier

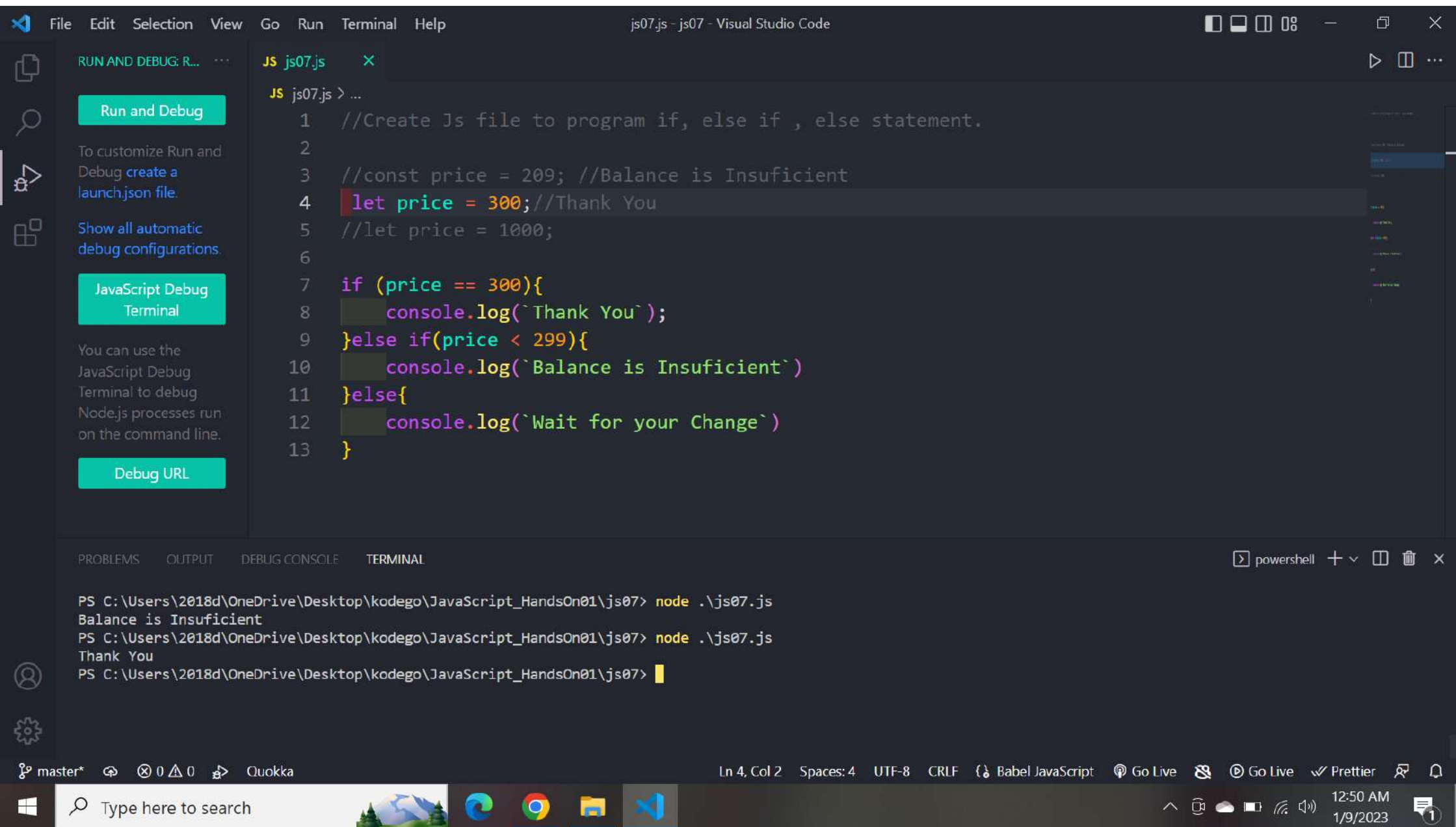


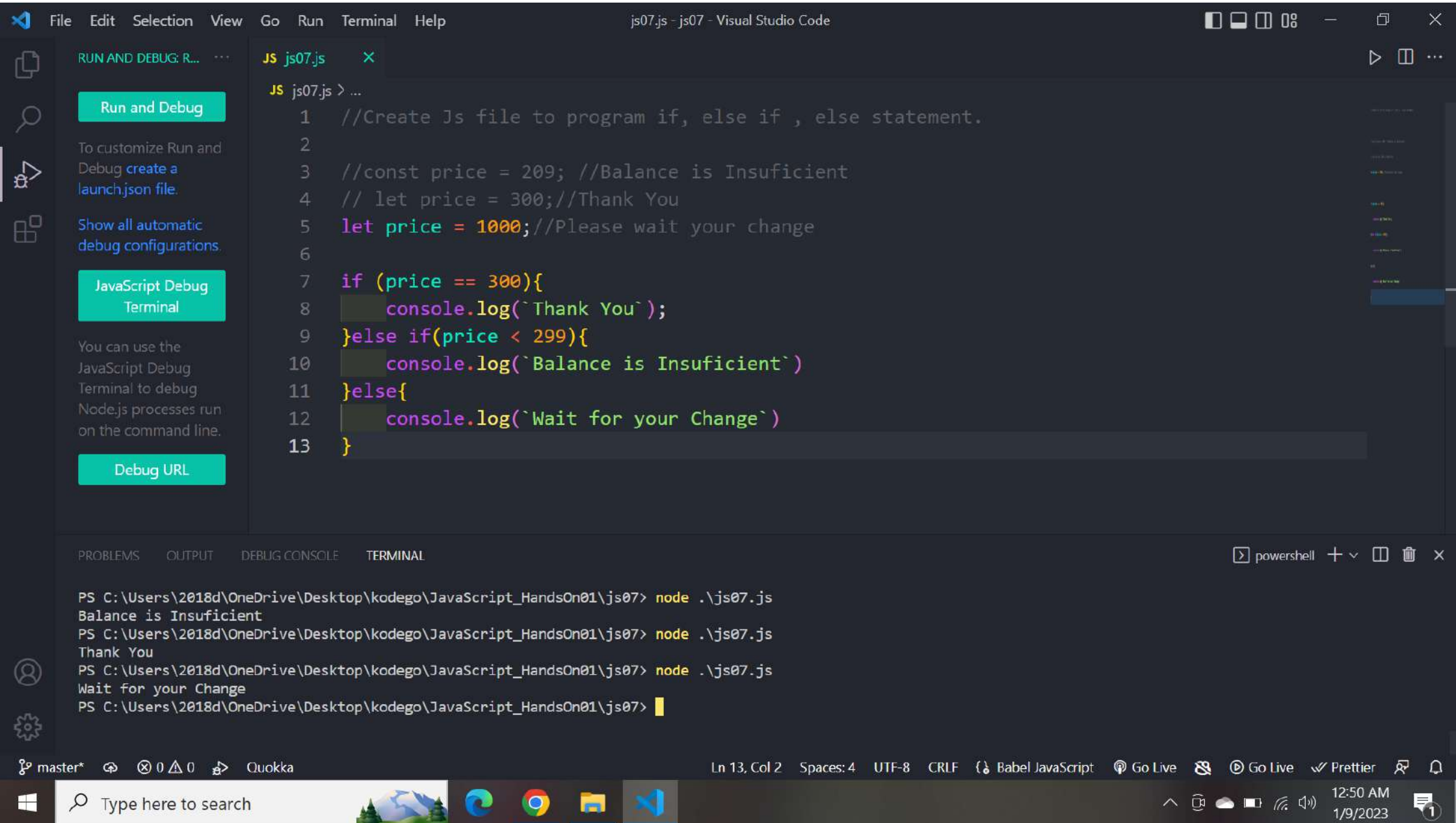












File Edit Selection View Go Run Terminal Help

js07.js - js07 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js07.js

JS07

Documentation

gitbash

JS js07.js

OUTLINE

TIMELINE

JS js07.js

JS js07.js > ...

```
4 // let price = 300;//Thank You
5 let price = 200;//Please wait your change
6
7 if (price == 300){
8     console.log(`Thank You`);
9 }else if(price < 300){
10     console.log(`Balance is Insuficient`)
11 }else{
12     console.log(`Wait for your Change`)
13 }
14
15 console.log("Ternary");
16 let string = (price < 299, price == 300) ?
17     `${price} Thank You.` :
18     `${price} Balance is Insuficient` ||
19     `${price} Wait for your Change`
20 console.log(string, [sum=price-300]);
```

PROBLEMS

OUTPUT

DEBUG CONSOLE

TERMINAL

Code

```
[Running] node "c:\Users\2018d\OneDrive\Desktop\kodego\JavaScript_HandsOn01\js07\js07.js"
Balance is Insuficient
Ternary
200 Balance is Insuficient [ -100 ]
```

master\*

0 0 0 Quokka

Ln 19, Col 38 Spaces: 4 UTF-8 CRLF Babel JavaScript Go Live Go Live Prettier

Type here to search

9:44 AM

1/9/2023



File Edit Selection View Go Run Terminal Help

js07.js - js07 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js07.js

JS07

Documentation

gitbash

JS js07.js

OUTLINE

TIMELINE

JS js07.js

```
JS js07.js > [0] price
4 // let price = 300;//Thank You
5 let price = 300;//Please wait your change
6
7 if (price == 300){
8     console.log(`Thank You`);
9 }else if(price < 300){
10     console.log(`Balance is Insuficient`)
11 }else{
12     console.log(`Wait for your Change`)
13 }
14
15 console.log("Ternary");
16 let string = (price < 299, price == 300) ?
17     `${price} Thank You.` :
18     `${price} Balance is Insuficient` ||
19     `${price} Wait for your Change`
20 console.log(string, [sum=price-300]);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js07> node .\js07.js
Thank You
Ternary
300 Thank You. [ 0 ]
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js07>

Ln 5, Col 14 Spaces: 4 UTF-8 CRLF { Babel JavaScript Go Live Go Live Prettier

9:45 AM 1/9/2023

File Edit Selection View Go Run Terminal Help

js07.js - js07 - Visual Studio Code

EXPLORED

OPEN EDITORS

JS js07.js

JS07

Documentation

gitbash

JS js07.js

OUTLINE

TIMELINE

JS js07.js

JS js07.js > ...

```
4 // let price = 300;//Thank You
5 let price = 400;//Please wait your change
6
7 if (price == 300){
8     console.log(`Thank You`);
9 }else if(price < 300){
10     console.log(`Balance is Insuficient`)
11 }else{
12     console.log(`Wait for your Change`)
13 }
14
15 console.log("Ternary");
16 let string = (price < 300, price == 300) ?
17     `${price} Thank You.` : //price = 300
18     `${price} Balance is Insuficient` && //price = 200
19     `${price} Wait for your Change` //price = 400
20 console.log(string, [sum=price-300]);
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

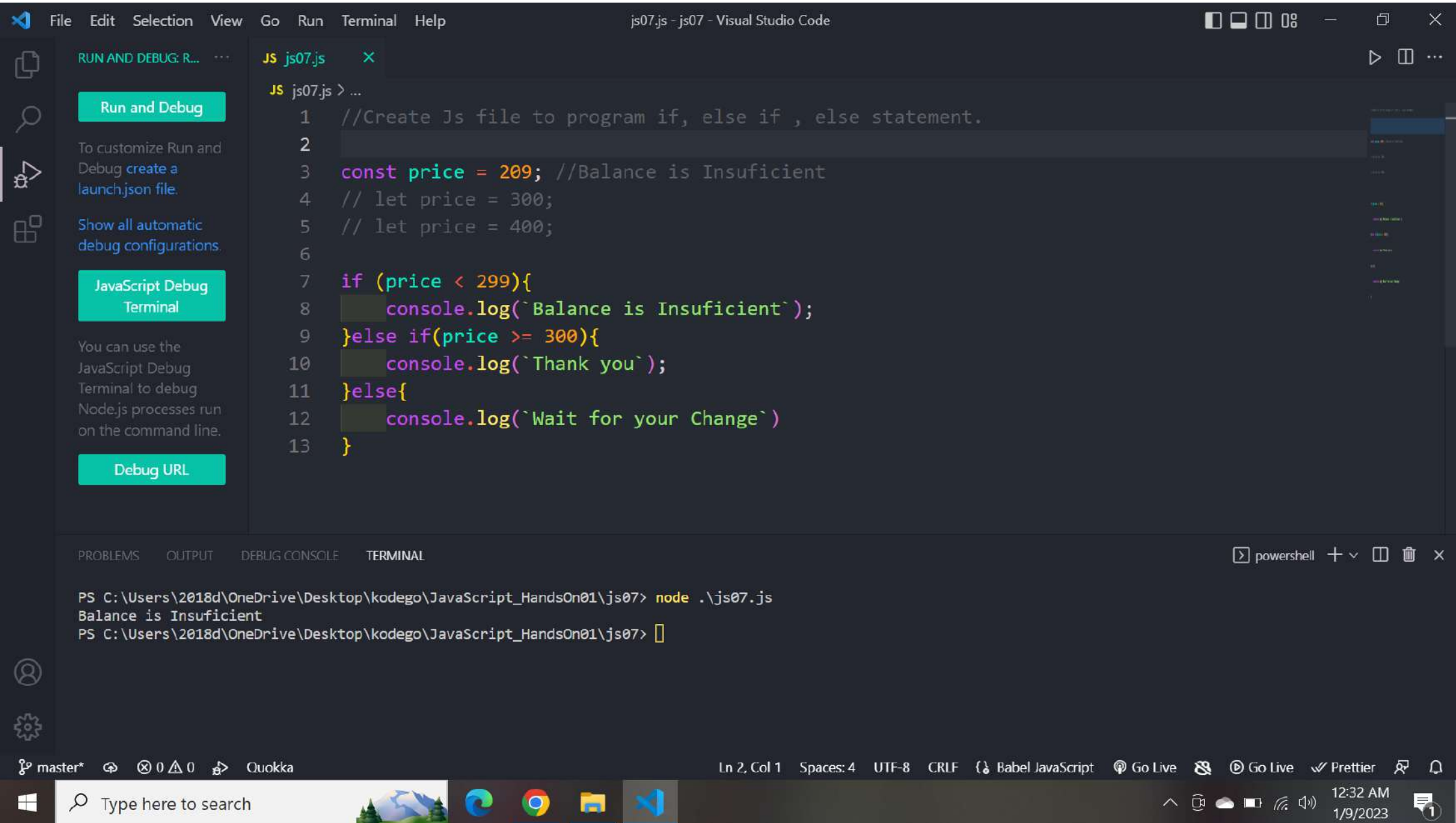
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js07> node .\js07.js
Wait for your Change
Ternary
400 Wait for your Change [ 100 ]
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js07>

master\* 0 0 Quokka

Ln 19, Col 57 Spaces: 4 UTF-8 CRLF Babel JavaScript Go Live Go Live Prettier

Type here to search

9:50 AM 1/9/2023





VS

File Edit Selection View Go Run Terminal Help

js08.js - js08 - Visual Studio Code

EXPLOER

OPEN EDITORS

JS js08.js

JS08

Documentation

gitbash

JS js08.js

OUTLINE

TIMELINE

JS js08.js

JS js08.js > ...

```
1 //Create Js file to program switch case statement.
2
3 let fruits = 'BANANA';
4
5 switch (fruits) {
6   case 'banana':
7     console.log('banana');//fruits = 'BANANA' //Unknown fruit
8     break;
9   case 'apple':
10    console.log('apple');//fruits =
11    break;
12   case 'orange':
13    console.log('orange');//fruits =
14    break;
15   default:
16    console.log('Unknown fruit.');
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08> node .\js08.js
Unknown fruit.
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08>

main\*

0 0

Live Share

Quokka

Ln 17, Col 2 Spaces: 2 UTF-8 CRLF {} Babel JavaScript Go Live Go Live

7:41 PM 1/12/2023

File Edit Selection View Go Run Terminal Help

js08.js - js08 - Visual Studio Code

EXPLORER

OPEN EDITORS

JS js08.js

JS08

Documentation

gitbash

JS js08.js

OUTLINE

TIMELINE

JS js08.js

JS js08.js > ...

```
1 //Create Js file to program switch case statement.
2
3 let fruits = 'apple';
4
5 switch (fruits) {
6   case 'banana':
7     console.log('banana');//fruits = 'BANANA' //Unknown fruit
8     break;
9   case 'apple':
10    console.log('apple');//fruits = apple
11    break;
12   case 'orange':
13     console.log('orange');//fruits =
14     break;
15   default:
16     console.log('Unknown fruit.');
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08> node .\js08.js
Unknown fruit.
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08> node .\js08.js
apple
PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08>

main\*

0 0 0

Live Share

Quokka

Ln 10, Col 40 Spaces: 2 UTF-8 CRLF {} Babel JavaScript

Go Live

Go Live

7:43 PM 1/12/2023

File Edit Selection View Go Run Terminal Help

js08.js - js08 - Visual Studio Code

EXPLORED

OPEN EDITORS

JS js08.js

JS08

Documentation

gitbash

JS js08.js

OUTLINE

TIMELINE

JS js08.js

JS js08.js > ...

4

5 switch (fruits) {

6 case 'banana':

7 console.log('banana');//fruits = 'BANANA' //Unknown fruit

8 break;

9 case 'apple':

10 console.log('apple');//fruits = 'apple'

11 break;

12 case 'orange':

13 console.log('orange');//fruits = 'Orange' //Unknown fruit

14 default:

15 console.log('Unknown fruit.');//fruits = 'kayomito' //Unknown fruit

16 }

17

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

Unknown fruit.

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08> node .\js08.js

apple

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08> node .\js08.js

Unknown fruit.

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08> node .\js08.js

Unknown fruit.

PS C:\Users\2018d\OneDrive\Desktop\kodego\JavaScript\_HandsOn01\js08>

main\*

0 0 0

Live Share

Quokka

Ln 15, Col 72 Spaces: 2 UTF-8 CRLF {} Babel JavaScript

Go Live

Go Live

7:47 PM

1/12/2023