

JAVA SCRIPT BASICS TASKS :

1. <!DOCTYPE html>

```
<html lang="en">
```

```
<head>
```

```
  <meta charset="UTF-8">
```

```
  <meta name="viewport" content="width=device-width, initial-scale=1.0">
```

```
  <title>JS Task</title>
```

```
</head>
```

```
<body>
```

```
  <script>
```

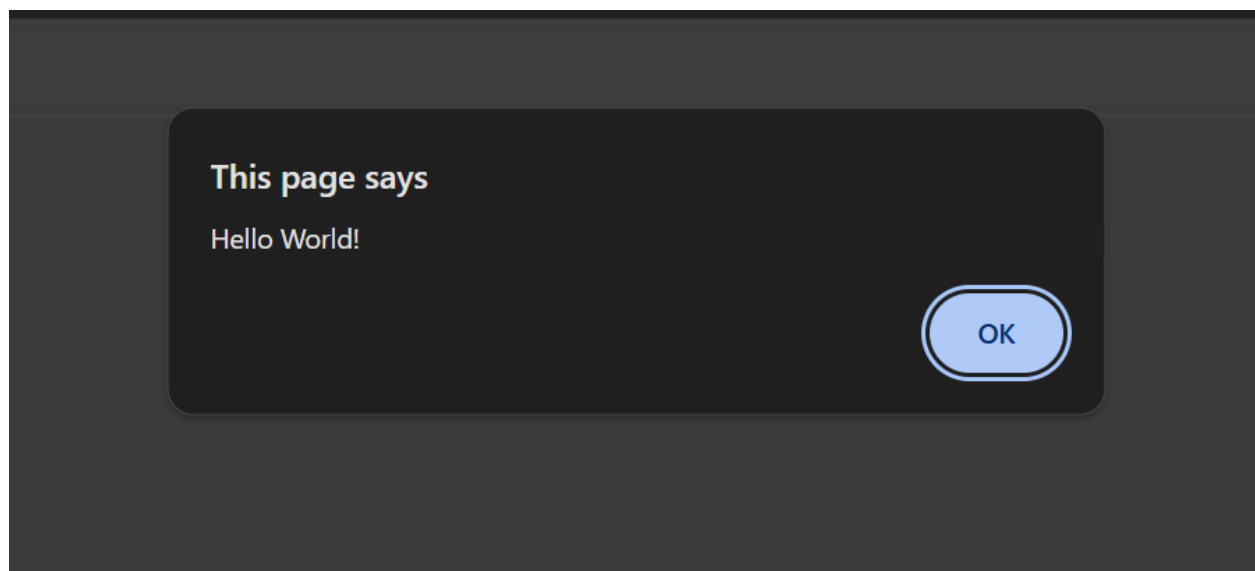
```
    alert("Hello World!");
```

```
  </script>
```

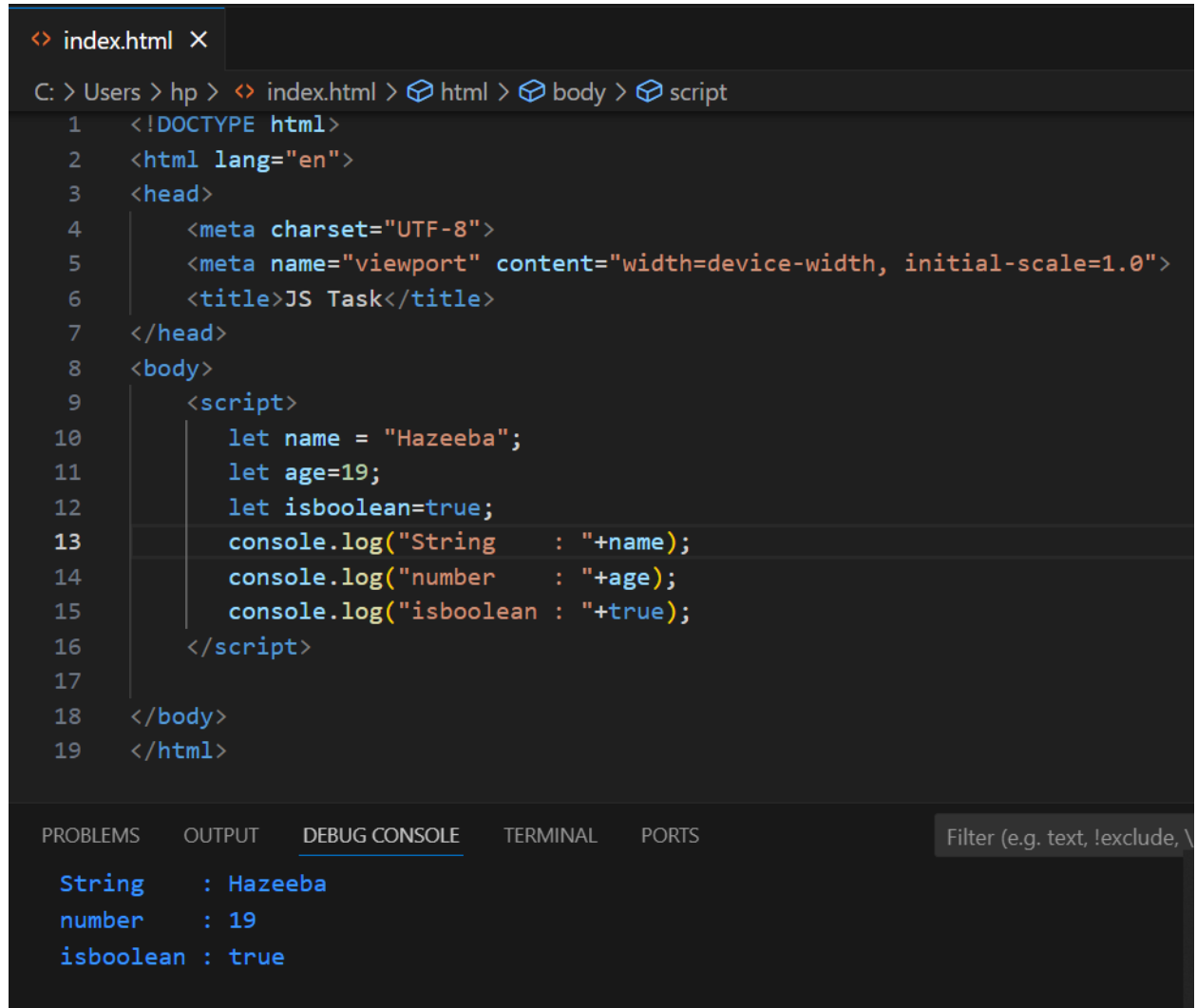
```
</body>
```

```
</html>
```

OUTPUT :



2.



```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>JS Task</title>
7  </head>
8  <body>
9      <script>
10         let name = "Hazeeba";
11         let age=19;
12         let isboolean=true;
13         console.log("String    : "+name);
14         console.log("number    : "+age);
15         console.log("isboolean : "+true);
16     </script>
17
18 </body>
19 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !exclude, \

```
String    : Hazeeba
number    : 19
isboolean : true
```

3.

```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
 2  <html lang="en">
 3  <head>
 7  </head>
 8  <body>
 9      <script>
10          let num1=10;
11          let num2=15;
12          let add=num1+num2;
13          let sub=num1-num2;
14          let mul=num1*num2;
15          let div=num1/num2;
16          console.log("Addition : "+add);
17          console.log("Substraction : "+sub);
18          console.log("Multiplication : "+mul);
19          console.log("division : "+div);
20      </script>
21
22  </body>
23  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
Addition : 25
Substraction : -5
Multiplication : 150
division : 0.6666666666666666
```

4.

```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
 2  <html lang="en">
 3  <head>
 7  </head>
 8  <body>
 9      <script>
10          let firstname="Hazeeba";
11          let lastname="Abuthahir";
12          console.log("After concatenation : " + firstname + lastname);
13      </script>
14
15  </body>
16  </html>

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  Filter (e.g. text, le
After concatenation : HazeebaAbuthahir
```

7.

```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
 1  <!DOCTYPE html>
 2  <html lang="en">
 3  <head>
 4      <meta charset="UTF-8">
 5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
 6      <title>JS Task</title>
 7  </head>
 8  <body>
 9      <script>
10          let firstname="Hazeeba";
11          let age=19
12          /*No,There is no differences with semicolon separated and non separated string,
13          both are treated equally by the compiler.
14          But using semicolon is good practice and preferable also.*/
15      </script>
16  </body>
17  </html>
```

5.

```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
 2  <html lang="en">
 3  <head>
 7  </head>
 8  <body>
 9      <script>
10          let firstname="Hazeeba";
11          let age=19;
12          let lastname;
13          let rollno=717822n;
14          let isboolean=true;
15          console.log(firstname + " : " + typeof(firstname));
16          console.log(age + " : " + typeof(age));
17          console.log(lastname + " : " + typeof(lastname));
18          console.log(rollno + " : " + typeof(rollno));
19          console.log(isboolean + " : " + typeof(isboolean));
20      </script>
21
22  </body>
23  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e

```
Hazeeba : string
19 : number
undefined : undefined
717822 : bigint
true : undefined
```

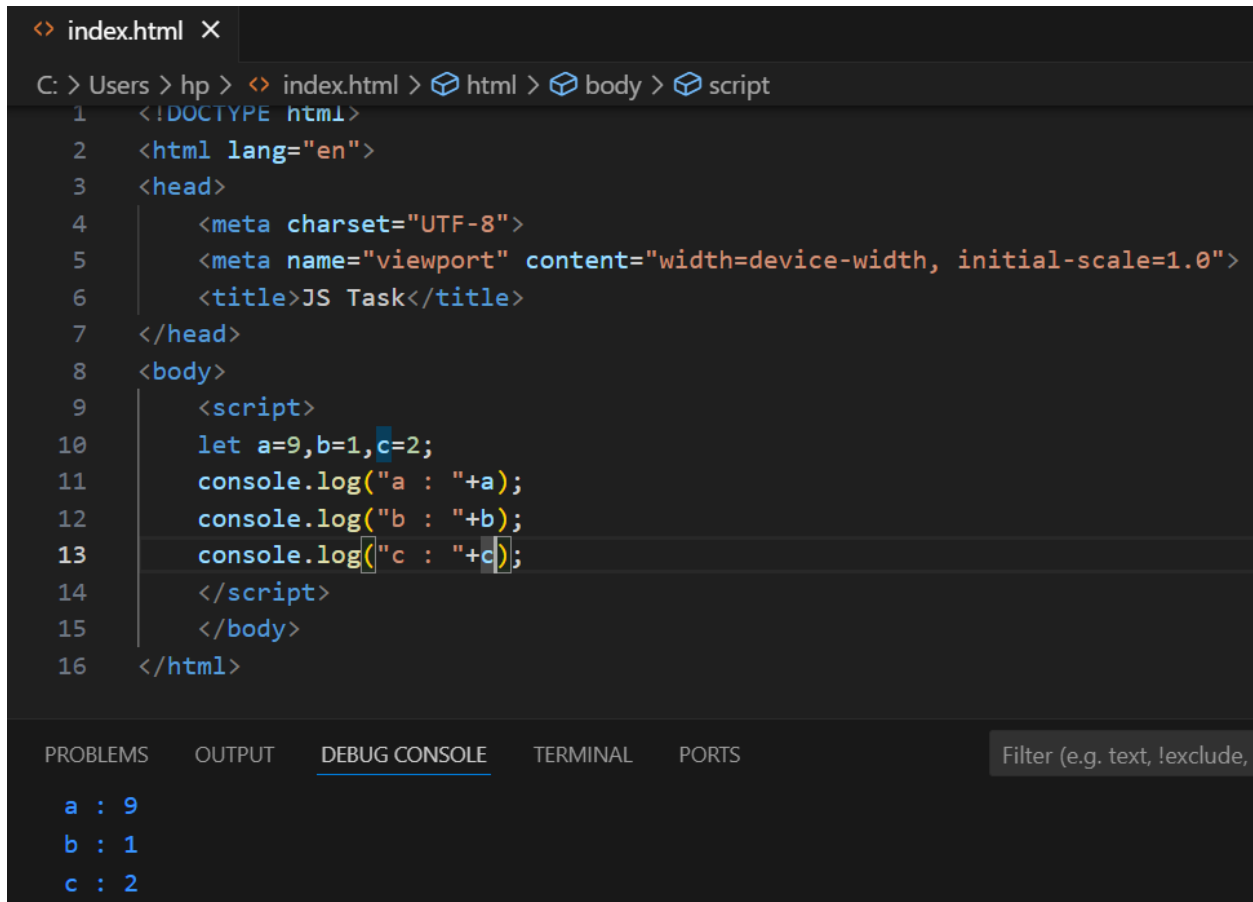
6.

```
<> index.html ●
C: > Users > hp > <> index.html > html > body > script
 2  <html lang="en">
 3  <head>
 4    <meta name="viewport" content="width=device-width, initial-scale=1.0">
 5    <title>JS Task</title>
 6  </head>
 7  <body>
 8    <script>
 9      //let firstname="Hazeeba";
10      let age=19
11      // - single line command use to command the single line of code block
12      /*multi line command use to command the
13      multiple line of code block.*/
14    </script>
15  </body>
16 </html>
```

8.

```
 6    <title>JS Task</title>
 7  </head>
 8  <body>
 9    <script>
10      for(var i=0;i<5;i++){
11        for(var j=i+1;j<5;j++){
12          console.log(i+j);
13        }
14        console.log(" ");
15      }
16    </script>
17  </body>
18 </html>
```

9.



The screenshot shows a VS Code editor window with a file named `index.html`. The file path is `C:\Users\hp\index.html`. The code in the file is as follows:

```
1 <!DOCTYPE html>
2 <html lang="en">
3 <head>
4   <meta charset="UTF-8">
5   <meta name="viewport" content="width=device-width, initial-scale=1.0">
6   <title>JS Task</title>
7 </head>
8 <body>
9   <script>
10    let a=9,b=1,c=2;
11    console.log("a : "+a);
12    console.log("b : "+b);
13    console.log("c : "+c);
14  </script>
15 </body>
16 </html>
```

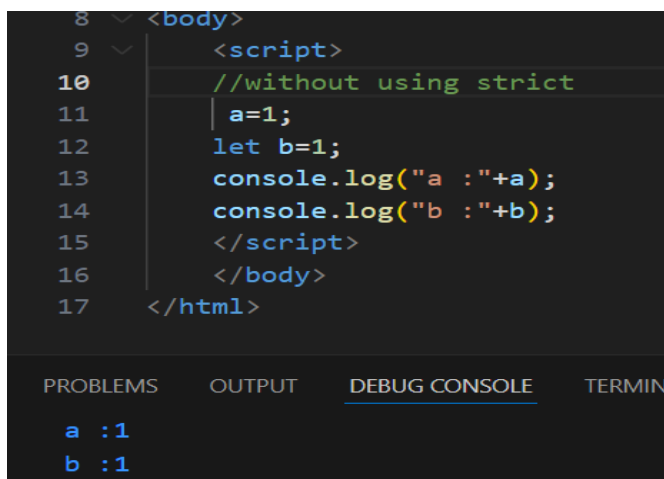
Below the editor, the **DEBUG CONSOLE** tab is active, showing the output of the JavaScript code:

```
a : 9
b : 1
c : 2
```

10.

There is no difference in the output. It works same in both cases.

11.



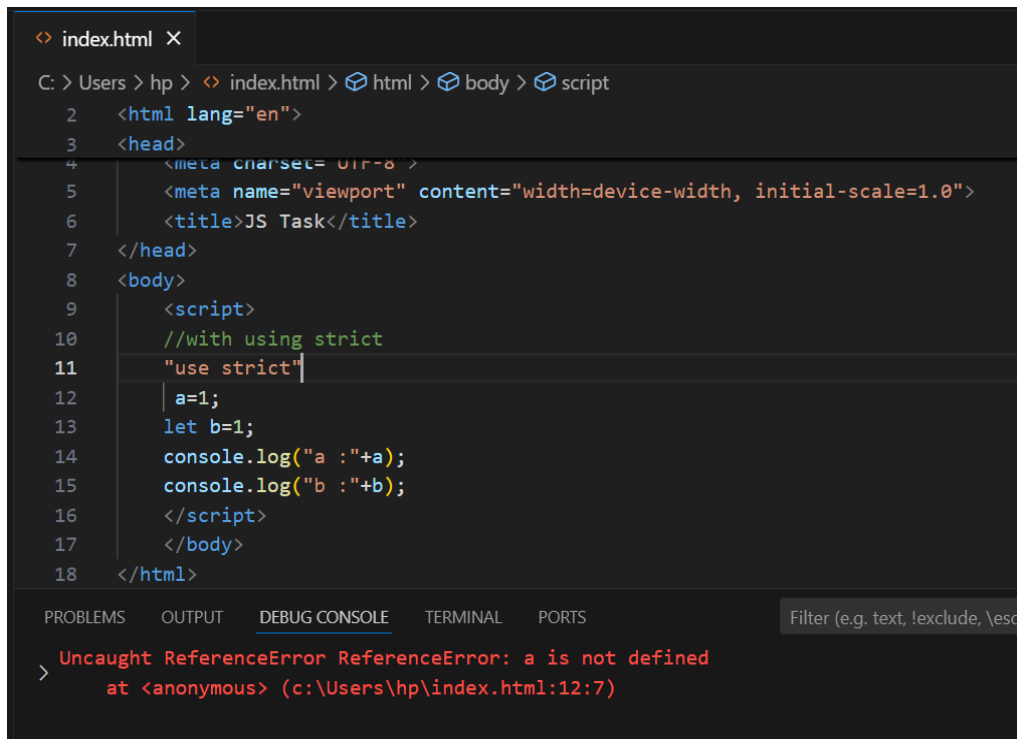
The screenshot shows a VS Code editor window with a file named `index.html`. The code in the file is as follows:

```
8 <body>
9   <script>
10    //without using strict
11    a=1;
12    let b=1;
13    console.log("a : "+a);
14    console.log("b : "+b);
15  </script>
16 </body>
17 </html>
```

Below the editor, the **DEBUG CONSOLE** tab is active, showing the output of the JavaScript code:

```
a : 1
b : 1
```

12.

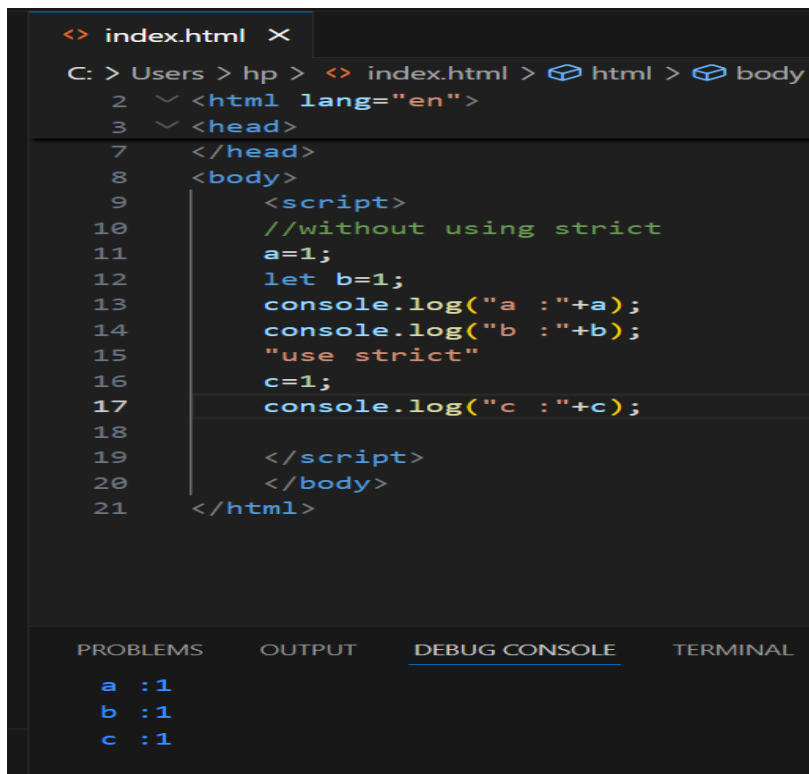


The screenshot shows a VS Code editor with a file named `index.html` open. The file path is `C:\Users\hp\index.html`. The code in the editor is as follows:

```
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta name="viewport" content="width=device-width, initial-scale=1.0">
5   <title>JS Task</title>
6 </head>
7 <body>
8   <script>
9     //with using strict
10    "use strict"
11    a=1;
12    let b=1;
13    console.log("a :"+a);
14    console.log("b :"+b);
15  </script>
16 </body>
17 </html>
```

The console at the bottom shows an error: `Uncaught ReferenceError ReferenceError: a is not defined at <anonymous> (c:\Users\hp\index.html:12:7)`. The error occurs because the variable `a` is assigned a value before the `"use strict"` directive is executed.

14.



The screenshot shows a VS Code editor with a file named `index.html` open. The file path is `C:\Users\hp\index.html`. The code in the editor is as follows:

```
1 <html lang="en">
2 <head>
3   <meta charset="UTF-8">
4   <meta name="viewport" content="width=device-width, initial-scale=1.0">
5   <title>JS Task</title>
6 </head>
7 <body>
8   <script>
9     //without using strict
10    a=1;
11    let b=1;
12    console.log("a :"+a);
13    console.log("b :"+b);
14    "use strict"
15    c=1;
16    console.log("c :"+c);
17  </script>
18 </body>
19 </html>
```

The console at the bottom shows the output of the script: `a :1`, `b :1`, and `c :1`. The code is correct because the `"use strict"` directive is placed after the assignments for `a` and `b`, and `c` is assigned after the directive.

13.

```
<> index.html ●
C: > Users > hp > <> index.html > html > body > script
2  <html lang="en">
3  <head>
7  </head>
8  <body>
9      <script>
10     //with using strict
11     "use strict"
12     a=1;
13     let b=1;
14     add();
15     function add(){
16         console.log(5+9);
17     }
18     delete(b);
19     delete(add);
20     console.log("a :"+a);
21     console.log("b :"+b);
22     </script>
23     </body>
24 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !exclude, \escape)

```
> Uncaught SyntaxError SyntaxError: Delete of an unqualified identifier in strict mode.
    at (program) (c:\Users\hp\index.html:18:13)
```

15.

```
<> index.html 5 X
C: > Users > hp > <> index.html > html > body > script
 2  <html lang="en">
 3  <head>
 7  </head>
 8  <body>
 9      <script>
10          //with using strict
11          "use strict"
12          let if =1;
13          let b=1;
14          console.log("if :"+if);
15          console.log("b :"+b);
16      </script>
17  </body>
18  </html>

PROBLEMS 5 OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !excl)
> Uncaught SyntaxError SyntaxError: Unexpected strict mode reserved word
   at (program) (c:\Users\hp\index.html:12:5)
```

16.

```
<> index.html •
C: > Users > hp > <> index.html > html > body > script
 1  <!DOCTYPE html>
 2  <html lang="en">
 3  <head>
 4      <meta charset="UTF-8">
 5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
 6      <title>JS Task</title>
 7  </head>
 8  <body>
 9      <script>
10          let a = 10;
11          var b = 20;
12          const c = 30;
13          /*Explanation:
14              let: Global scope, we can access the variable declare with let in anywhere in the code.
15              Var: Local scope , we access the variable declare with var in within the block which it is defined.
16              Const : constant scope*/
17      </script>
18  </body>
19  </html>
```

17.

```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>JS Task</title>
7  </head>
8  <body>
9      <script>
10         const c = 30;
11         c=50;
12         console.log("c : "+c);
13     </script>
14 </body>
15 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !exclude, \escape)

```
> Uncaught TypeError TypeError: Assignment to constant variable.
    at <anonymous> (c:\Users\hp\index.html:11:10)
```

18.

```
<> index.html X
C: > Users > hp > <> index.html > html > body > script
1  <!DOCTYPE html>
2  <html lang="en">
3  <head>
4      <meta charset="UTF-8">
5      <meta name="viewport" content="width=device-width, initial-scale=1.0">
6      <title>JS Task</title>
7  </head>
8  <body>
9      <script>
10         let c ;
11         console.log("c : "+c);
12     </script>
13 </body>
14 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !exclude, \escape)

```
c : undefined
```

19.

```
7   </head>
8   <body>
9     <script>
10      let name="hazeeba";
11      let age=19;
12      let isboolean=true;
13      console.log(name + " : " + typeof(name));
14      console.log(age + " : " + typeof(age));
15      console.log(isboolean + " : " + typeof(isboolean));
16    </script>
17  </body>
18 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

hazeeba : string
19 : number
true : boolean

20.

<> index.html X

C: > Users > hp > <> index.html > html > body > script

```
2   <html lang="en">
3   <head>
4     <meta charset="UTF-8">
5     <meta name="viewport" content="width=device-width, initial-scale=1.0">
6     <title>JS Task</title>
7   </head>
8   <body>
9     <script>
10      let name="hazeeba";
11      let age=19;
12      let newname=name;
13      console.log(newname + " : " + typeof(newname));
14    </script>
15  </body>
16 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !exclude, \e

hazeeba : string

21 & 22. <body>

<script>

let name="hazeeba";

let age=19;

let isboolean=true;

let lastname;

let offer=null;

let details={

add(){

a=1;

b=2;

}

}

console.log(name + " : " + typeof(name));

console.log(age + " : " + typeof(age));

console.log(isboolean + " : " + typeof(isboolean));

console.log(lastname + " : " + typeof(lastname));

console.log(offer + " : " + typeof(offer));

console.log(details + " : " + typeof(details));

</script>

</body>

OUTPUT :

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

hazeeba : string
19 : number
true : boolean
undefined : undefined
null : object
[object Object] : object
```

23.

```
8    <body>
9      <script>
10         var a = Symbol("hello")
11         console.log(typeof(a));
12      </script>
13    </body>
14  </html>

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS

symbol
```

24.

```
7 </head>
8 <body>
9   <script>
10     var a = null;
11     console.log(typeof(a));
12   </script>
13
14 </body>
15 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

object

25.

```
8 <body>
9   <script>
10     var a = 10;
11     if(a==10)
12     {
13       let b=20;
14     }
15     console.log(b);
16   </script>
17
18 </body>
19 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

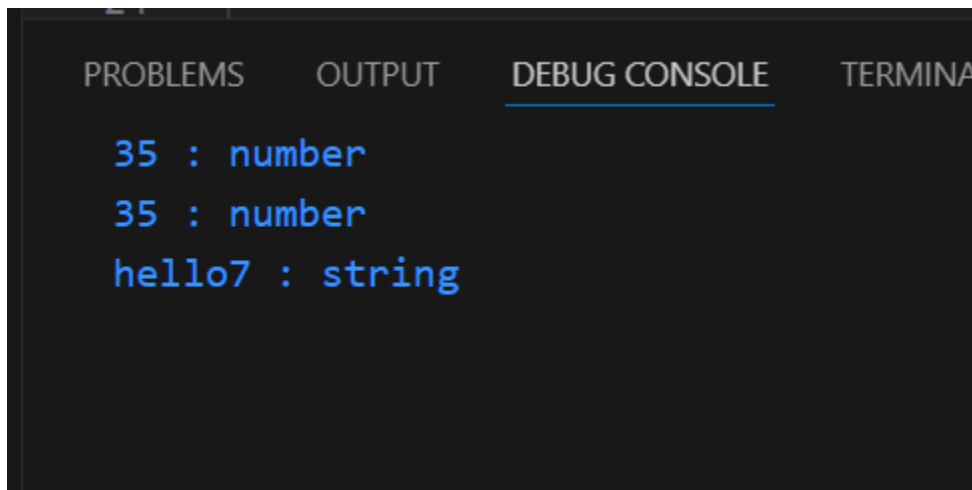
> Uncaught ReferenceError: ReferenceError: b is not defined
at <anonymous> (c:\Users\hp\index.html:15:21)

26. <script>

```
//implicit conversion  
  
let a="7";  
  
let b="7"*5;  
  
console.log(b + " : " +typeof(b));  
  
//Explicit Conversion  
  
let m="7";  
  
let n=5*(parseInt(m));  
  
console.log(n + " : "+typeof(n));  
  
let h="hello";  
  
let g=7;  
  
let j=h+(String(g));  
  
console.log(j + " : "+typeof(j));
```

</script>

OUTPUT :



The screenshot shows a code editor with a dark theme. At the top, there are four tabs: 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', and 'TERMINAL'. The 'DEBUG CONSOLE' tab is selected and underlined. Below the tabs, the output of the JavaScript code is displayed in blue text on a dark background. The output consists of three lines: '35 : number', '35 : number', and 'hello7 : string'.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  
  
35 : number  
35 : number  
hello7 : string
```


27.

```
8   <body>
9     <script>
10      var c = true
11      var a = c.toString();
12      console.log(typeof(a));
13      var str = "hi"
14      var st = !!str;
15      console.log(typeof(st));
16    </script>
17  </body>
18 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

string
boolean

28.

```
9   <script>
10     var a = 15;
11     var b = 3;
12     console.log("Addition : "+ (a+b));
13     console.log("Substraction :"+(a-b));
14     console.log("Multiplication : "+a*b);
15     console.log("Division : "+a/b);
16   </script>
17
18
19 </body>
20 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Addition : 18
Substraction :12
Multiplication : 45
Division : 5

29.

```
7   </head>
8   <body>
9     <script>
10      var a = 15;
11      var b = 3;
12      console.log(++a);
13      console.log(--b);
14    </script>
15  </body>
16 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

16
2

30.

```
8   <body>
9     <script>
10      var a = 15;
11      var b = 3;
12      var c=a+b*a-b;
13      let result = 5 + 3 > 2 && 4 < 10 || false;
14      console.log(c);
15      console.log(result);
16    </script>
17  </body>
18 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

57
true

31.

```
9      <script>
10          var a = 15;
11          var b = 3;
12          if(a<=b){
13              console.log(a);
14          }
15          else{
16              console.log(b);
17          }if(a>=b){
18              console.log(a);
19          }
20          else{
21              console.log(b);
22          }
23      </script>
24  </body>
25  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PC

3
15

32.

<body>

<script>

```
console.log("Equality Operator : It only checks the value");

console.log(5 == '5');    // true (string '5' is converted to number 5)

console.log(0 == false);  // true (false is converted to 0)

console.log(null == undefined); // true (special case where they are considered equal)

console.log("" == false); // true (empty string is converted to 0, false is 0)

console.log([1] == '1');  // true (array is converted to string '1')

console.log(42 == true);  // false (42 is not converted to 1)

console.log("Strict Equality Operator : It checks the value and data type ");

console.log(5 === '5');   // false (number !== string)

console.log(0 === false); // false (number !== boolean)
```

```
console.log(null === undefined); // false (different types)

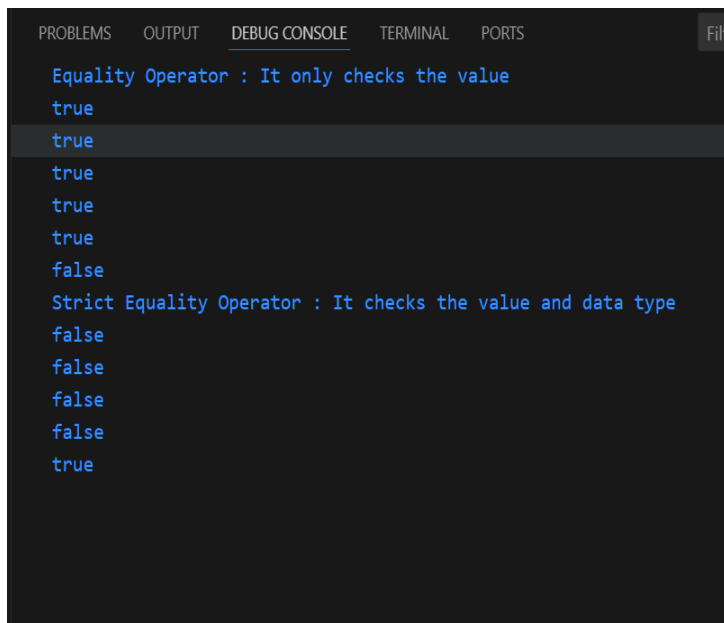
console.log(" === false); // false (string !== boolean)

console.log(42 === 42); // true (both are the same number)
```

</script>

</body>

OUTPUT :



The screenshot shows a web browser's developer console with the 'DEBUG CONSOLE' tab selected. It displays the output of several JavaScript console.log statements. The first section, titled 'Equality Operator : It only checks the value', shows the results of the '==' operator: 'true' for 'null === undefined', 'false' for '" === false', and 'true' for '42 === 42'. The second section, titled 'Strict Equality Operator : It checks the value and data type', shows the results of the '===' operator: 'false' for 'null === undefined', 'false' for '" === false', and 'true' for '42 === 42'.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  Filter

Equality Operator : It only checks the value
true
true
true
true
true
false
Strict Equality Operator : It checks the value and data type
false
false
false
false
true
```

33.



The screenshot shows a code editor with an HTML file. The HTML structure includes a <body> tag containing a <script> tag with JavaScript code. The JavaScript code defines two strings, 'Apple' and 'apple', and logs the results of three comparisons: 'str1 < str2', 'str1 > str2', and 'str1 === str2'. Below the code editor, the browser's developer console is open, showing the output of these comparisons: 'true', 'false', and 'false' respectively.

```
8  <body>
9  <script>
10  //RELATIONAL OPERATORS COMPARES THE STRINGS BASED ON THEIR UNICODES
11  const str1 = "Apple";
12  const str2 = "apple";
13  console.log(str1 < str2);
14  console.log(str1 > str2);
15  console.log(str1 === str2);
16
17  </script>
18 </body>
19 </html>

PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PORTS  Filter (e.g. text, !exclude, \escape)

true
false
false
```

34.

```
8 <body>
9   <script>
10     const str1 = "Apple";
11     const str2 = "Apple";
12     const num=7;
13     console.log(str1 !== str2);
14     console.log(str1 !== num);
15   </script>
16 </body>
17 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

false
true

35.

```
9   <script>
10     const str1 = null;
11     let str2;
12     console.log(str1 === str2); //it checks the datatype and its value
13     console.log(str1 == str2); //it only checks the value
14   </script>
15 </body>
16 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e.g. text, !exclude, \es

false
true

36.

```
9  <script>
10    let a=5;
11    if(a%2==0){
12      console.log("EVEN");
13    }
14    else{
15      console.log("ODD");
16    }
17  </script>
18  </body>
19  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

ODD

37.

```
8  <body>
9  <script>
10    let a=5;
11    if(a>=0){
12      if(a==0)
13        console.log("ZERO");
14      else
15        console.log("POSITIVE")
16    }
17    else{
18      console.log("NEGATIVE");
19    }
20  </script>
21  </body>
22  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

POSITIVE

38.

```
9  <script>
10    let a=5;
11    let c=(a>0)?"Positive":"Negative";
12    console.log(c);
13  </script>
14 </body>
15 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Positive

39.

```
9  <script>
10  let myVar = "Hello, world!";
11  let result = (myVar != null) ? "Valid" : "Invalid";
12  console.log(result);
13 </script>
14 </body>
15 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Valid

40.

```
8  <body>
9  <script>
10  let myvar = -15;
11  let result = (myvar >0) ? myvar : -myvar;
12  console.log(result);
13 </script>
14 </body>
15 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

15

41.

```
9  <script>
10  let and=true && false;
11  let or=true|| false;
12  let not=!true;
13  console.log("Logical AND : "+and);
14  console.log("Logical OR : "+or);
15  console.log("Logical NOT : "+not);
16 </script>
17 </body>
18 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Logical AND : false
Logical OR : true
Logical NOT : false

42.

```
9  <script>
10  let a=5;
11  if(a>=10 && a<100 || a>=0 && a<10){
12      console.log("true");
13  }
14  if(!a){
15      console.log("false");
16  }
17 </script>
18 </body>
19 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

true

43.

```
9  <script>
10  let bool=false;
11  console.log(!bool);
12 </script>
13 </body>
14 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL

true

44.

<body>

<script>

/*Logical AND (&&)

Evaluates the left-hand operand first.

If the left-hand operand is falsy (false, 0, null, undefined, NaN, or ""),

the entire expression evaluates to the left-hand operand, and the right-hand operand is not evaluated.

*/

let a = false;

let result = a && console.log("This won't be logged");

console.log(result);

/* Logical OR (||)

Evaluates the left-hand operand first.

If the left-hand operand is truthy, the entire expression evaluates to the left-hand operand, and the right-hand operand is not evaluated.

*/

let b = true;

let result1 = b || console.log("This won't be logged");

console.log(result1);

/* Logical NOT (!)

Not short-circuiting but inverts the truthiness of the operand.

*/

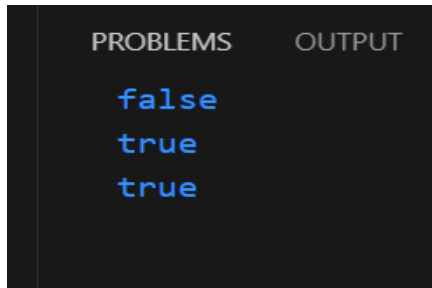
let c = false;

console.log(!c);

</script>

</body>

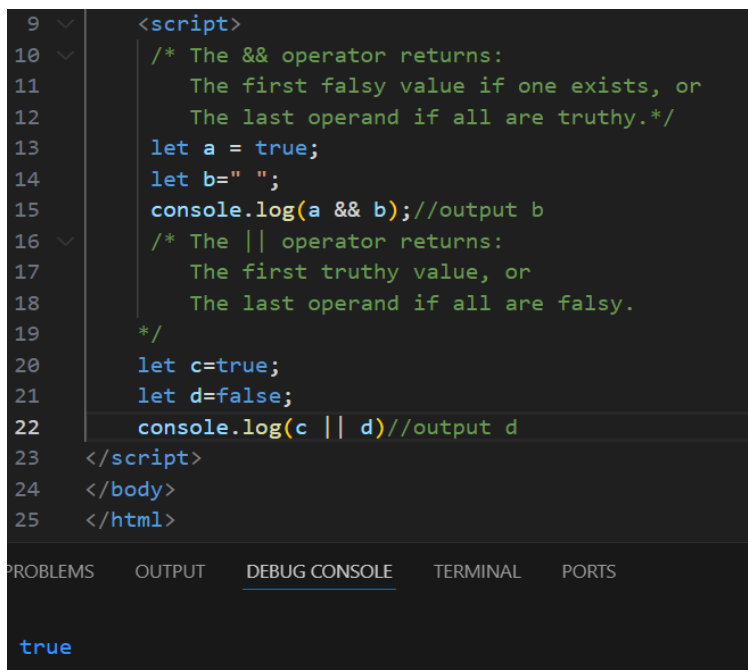
OUTPUT :



If we use console.log in AND Operation :



45.



46.

```
8  <body>
9  <script>
10 function add(a,b){
11     console.log("sum : "+(a+b));
12 }
13     add(5,4);
14 </script>
15 </body>
16 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

sum : 9

If we missed the bracket in the place of console.log

```
9  <script>
10 function add(a,b){
11     console.log("sum : "+a+b);
12 }
13     add(5,4);
14 </script>
15 </body>
16 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

sum : 54

47.

```
9  <script>
10 function AreaOfRectangle(length,width){
11     console.log("AreaOfRectangular : "+(length * width));
12 }
13     AreaOfRectangle(5,4);
14 </script>
15 </body>
16 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

AreaOfRectangular : 20

48.

```
8  <body>
9  <script>
10  function great(){
11      console.log("Great Work!");
12  }
13  great();
14  </script>
15  </body>
16  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Great Work!

49.

```
9  <script>
10  function great(){
11      console.log("Greate Work!!");
12  }
13  let ans=great();
14  console.log(ans); //Output : Undefined
15  </script>
16  </body>
17  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Greate Work!!
undefined

50.

```
<body>
```

```
  <script>
```

```
    function greet(name = "Guest",message="Welcome!") {  
      console.log(`Hello, ${name}! ${message}`);  
    }
```

```
    // Call the function without any arguments
```

```
    greet(); // Default parameters are used
```

```
    // Call the function with one argument
```

```
    greet("Alice"); // Default message is used
```

```
    // Call the function with both arguments
```

```
    greet("Bob", "Good to see you!");
```

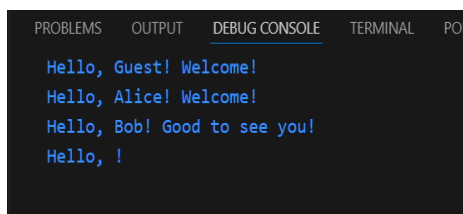
```
    // Call the function with empty strings as arguments
```

```
    greet("", ""); // Overrides defaults with empty strings
```

```
  </script>
```

```
</body>
```

OUTPUT :

A screenshot of a code editor's output console. The console has tabs for 'PROBLEMS', 'OUTPUT', 'DEBUG CONSOLE', 'TERMINAL', and 'PO'. The 'OUTPUT' tab is selected. The output shows four lines of text: 'Hello, Guest! Welcome!', 'Hello, Alice! Welcome!', 'Hello, Bob! Good to see you!', and 'Hello, !'. The text is displayed in a light blue color on a dark background.

```
PROBLEMS  OUTPUT  DEBUG CONSOLE  TERMINAL  PO  
Hello, Guest! Welcome!  
Hello, Alice! Welcome!  
Hello, Bob! Good to see you!  
Hello, !
```

51.

```
9      <script>
10      |   const greet=(name) => {"hello , ${name}!"};
11      |   console.log("Hazeeba");
12      |   console.log("KCE");
13      |   console.log(" ");
14      |   console.log("null");
15      |   </script>
16  </body>
17  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

Hazeeba
KCE

null

52.

```
8      <body>
9      |   <script>
10      |   |   const greet=(a,b) => `sum : ${a+b}`;
11      |   |   console.log(greet(1,2));
12      |   |   console.log(greet(10,4));
13      |   |   console.log(greet(30,40));
14      |   |   console.log(greet(0,5));
15      |   </script>
16  </body>
17  </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

sum : 3
sum : 14
sum : 70
sum : 5

53.

```
8 <body>
9   <script>
10     const isEven=(num) => num%2===0;
11     console.log(isEven(6));
12     console.log(isEven(10));
13     console.log(isEven(5));
14     console.log(isEven(3));
15   </script>
16 </body>
17 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
true
true
false
false
```

54.

```
9 <script>
10   const maxValue=(num1,num2) => {
11     if(num1>num2){
12       return num1;
13     }
14     else{
15       return num2;
16     }
17   };
18   console.log(maxValue(6,16));
19   console.log(maxValue(6,4));
20   console.log(maxValue(6,300));
21   console.log(maxValue(6,30));
22
23 </script>
24 </body>
25 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS

```
16
6
300
30
```

55.

Traditional Function (multiplyTraditional):

- In a traditional function, when it's called as a method of an object (myObject.multiplyTraditional(6)), the this keyword inside the function refers to the object itself (myObject).
- Therefore, this.value will be 10 (the property of myObject), and the multiplication will work as expected.

Arrow Function (multiplyArrow):

- Arrow functions **don't have their own this**. Instead, they **inherit this** from the surrounding context where they are defined (in this case, the global context or function scope).
- Since this inside the arrow function doesn't refer to myObject, it leads to an unexpected result. In the browser, for example, this might refer to the window object, and this.value would be undefined in the global context, so the multiplication will likely result in NaN or undefined.

```
8  <body>
9    <script>
10     const myObject={
11       value : 10,
12       multiplyTraditional : function(num){
13         console.log("Traditional Function This : "+this);
14         return this.value*num;
15       },
16       multiplyArrow : (num)=>{
17         console.log("Arrow Function This : "+this);
18         return this.value*num;
19       }
20     };
21   };
22   console.log(myObject.multiplyTraditional(6));
23   console.log(myObject.multiplyArrow(60));
24 </script>
25 </body>
26 </html>
```

PROBLEMS OUTPUT DEBUG CONSOLE TERMINAL PORTS Filter (e

```
Traditional Function This : [object Object]
60
Arrow Function This : [object Window]
NaN
```