

12.10.2021

1. How to declare a variable

You can declare a variable by inserting the keyword **var** before giving the variable a name or a value.

2. Variable types

Variables can be given as simple numbers, strings which are pieces of text, Booleans that are true and false values and arrays that are single objects that contain multiple values.

3. What is a function?

Functions are blocks of code that you can use again and again in order to save the need to repeat the same code.

4. List some arithmetic operators

- + addition
- - subtraction
- * multiplication
- / division
- % remainder

5. What are assignment operators?

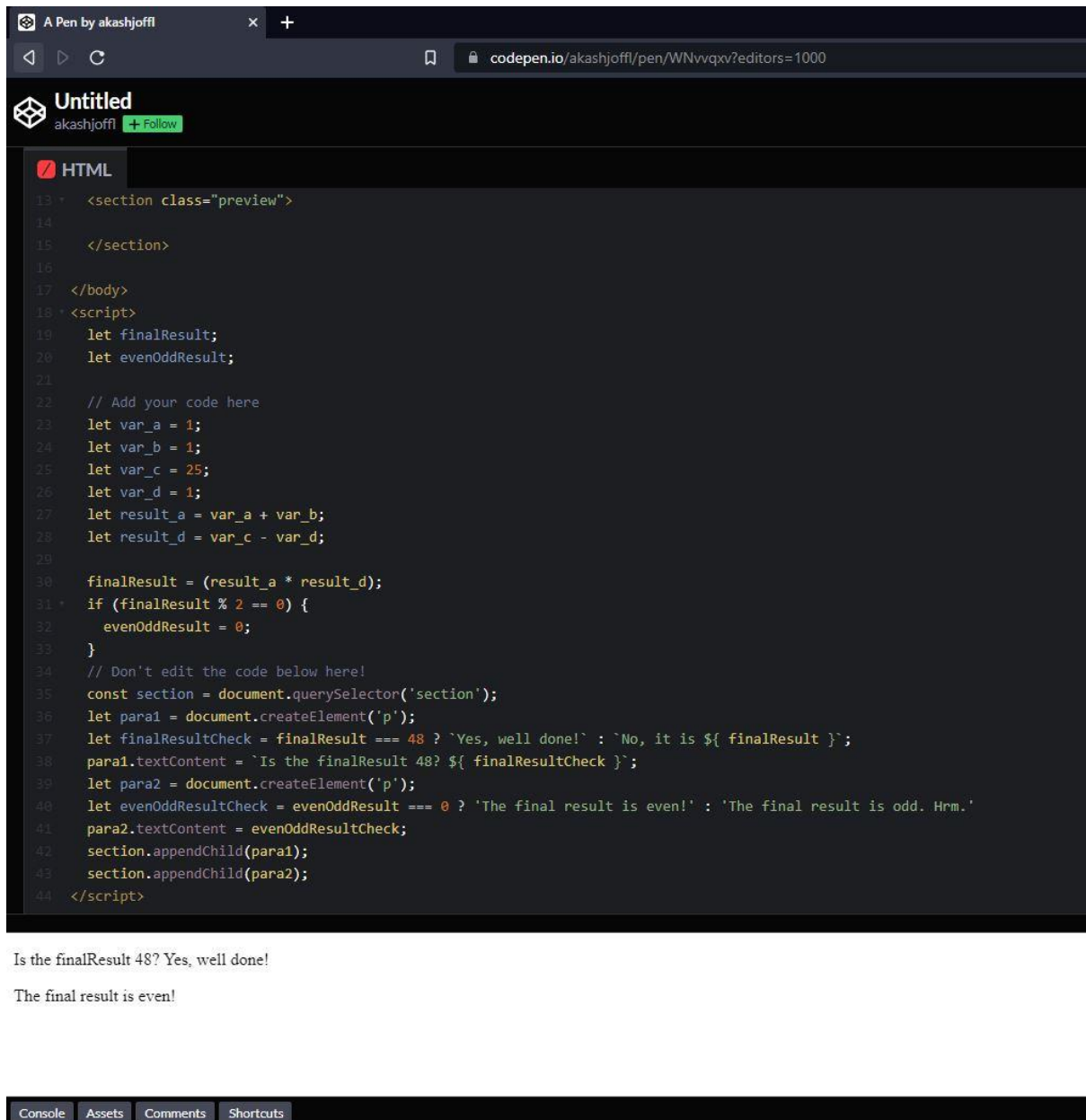
assignment operators are used to assign a value to a variable

6. what is a loop?

Loops allow you to run code again and again until a certain assigned condition is met.

7. Error Types-Syntax and Logic?

Syntax errors mean there are spelling errors in your code, logic errors on the other hand mean your code is not what you intended it to be so it runs but doesn't function as planned.



The screenshot shows a CodePen editor with the following code:

```
13 <section class="preview">
14
15 </section>
16
17 </body>
18 <script>
19   let finalResult;
20   let evenOddResult;
21
22   // Add your code here
23   let var_a = 1;
24   let var_b = 1;
25   let var_c = 25;
26   let var_d = 1;
27   let result_a = var_a + var_b;
28   let result_d = var_c - var_d;
29
30   finalResult = (result_a * result_d);
31   if (finalResult % 2 == 0) {
32     evenOddResult = 0;
33   }
34   // Don't edit the code below here!
35   const section = document.querySelector('section');
36   let para1 = document.createElement('p');
37   let finalResultCheck = finalResult === 48 ? 'Yes, well done!' : 'No, it is ${ finalResult }';
38   para1.textContent = `Is the finalResult 48? ${ finalResultCheck }`;
39   let para2 = document.createElement('p');
40   let evenOddResultCheck = evenOddResult === 0 ? 'The final result is even!' : 'The final result is odd. Hrm.'
41   para2.textContent = evenOddResultCheck;
42   section.appendChild(para1);
43   section.appendChild(para2);
44 </script>
```

The preview shows the output of the code:

Is the finalResult 48? Yes, well done!

The final result is even!

The bottom of the editor shows tabs for Console, Assets, Comments, and Shortcuts.

HTML

```
10
11 <section class="preview">
12
13
14
15 </section>
16
17 </body>
18 <script>
19 // Final result should be 10.42
20 // Add/update your code here
21
22 let result = (7 + 13) / (9 + 7);
23 let result2 = 100 / (2 * 6);
24 result *= result2;
25 let finalResult = result.toFixed(2);
26 let finalNumber = Number(finalResult);
27
28
29 // Don't edit the code below here!
30
31 const section = document.querySelector('section');
32
33 let para1 = document.createElement('p');
34 para1.textContent = `Your finalResult is ${ finalResult }`;
35 let para2 = document.createElement('p');
36 let finalNumberCheck = typeof finalNumber === 'number' ? 'finalNumber is a number type. Well done!' : `Ooops! finalNumber is of type ${ typeof finalNumber }.`
37 para2.textContent = finalNumberCheck;
38
39 section.appendChild(para1);
40 section.appendChild(para2);
41
42 </script>
```

Your finalResult is 10.42

finalNumber is a number type. Well done!



Untitled

akashjoffl [+ Follow](#)

HTML

```
20 // Statement 1: The elephant weights less than the mouse
21 let eleWeight = 1000;
22 let mouseWeight = 2;
23
24 // Statement 2: The Ostrich is taller than the duck
25 let ostrichHeight = 2;
26 let duckHeight = 0.3;
27
28 // Statement 3: The two passwords match
29 let pwd1 = 'stromboli';
30 let pwd2 = 'stROMBoLi'
31
32 // Add your code here
33 let weightComparison = eleWeight < mouseWeight? true : false;
34 let heightComparison = ostrichHeight > duckHeight? true : false;
35 let pwdMatch = pwd1 === pwd2? true : false;
36 // Don't edit the code below here!
37
38 const section = document.querySelector('section');
39
40 let para1 = document.createElement('p');
41 let para2 = document.createElement('p');
42 let para3 = document.createElement('p');
43
44 let weightTest = weightComparison ? 'True - elephants weight less than mice!?' : 'False - of course an elephant is heavier than a mouse!';
45 let heightTest = heightComparison ? 'True - an ostrich is indeed taller than a duck!' : 'False - apparently a duck is taller than an ostrich!?';
46 let pwdTest = pwdMatch ? 'True - the passwords match.' : 'False - the passwords do not match; please check them';
47
48 para1.textContent = weightTest;
49 section.appendChild(para1);
50 para2.textContent = heightTest;
51 section.appendChild(para2);
```

False — of course an elephant is heavier than a mouse!

True — an ostrich is indeed taller than a duck!

False — the passwords do not match; please check them
