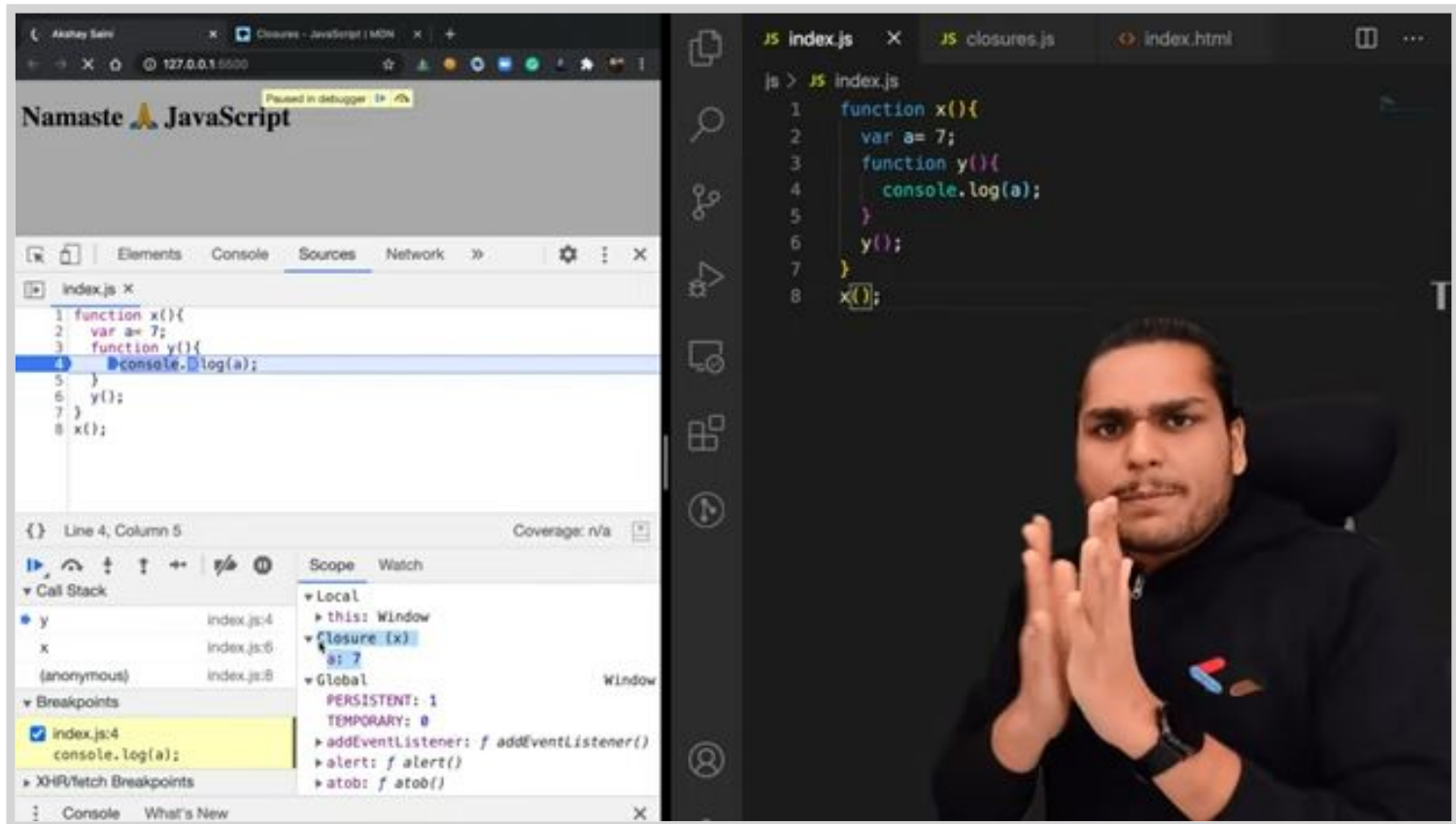


02:21



A function bined together with its lexical environment is called **CLOSURE**.

03:36



references to its surrounding state (the **lexical environment**). In other words, a closure gives you access to an outer function's scope from an inner function. In JavaScript, closures are created every time a function is created, at function creation time.

Lexical scoping

Consider the following example code:

```
1 function init() {  
2   var name = 'Mozilla'; // name is a local variable  
3   function displayName() { // displayName() is the inner function  
4     alert(name); // use variable declared in the parent function  
5   }  
6   displayName();  
}
```

04:32

The screenshot displays a web browser window on the left and a code editor on the right. The browser window shows a page titled "Namaste JavaScript" with a "Paused in debugger" message. The "Sources" panel is open, showing the file "index.js" with the following code:

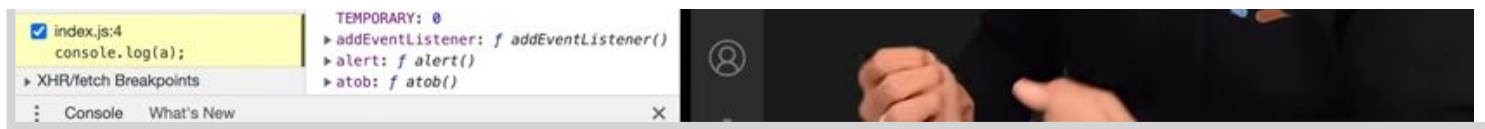
```
1 function x(){  
2   var a= 7;  
3   function y(){  
4     console.log(a);  
5   }  
6   y();  
7 }  
8 x();
```

The "Scope" panel at the bottom of the browser window shows the current scope is "Local", with variables "this: Window", "Closure (x)", "a: 7", and "Global". The "Call Stack" panel shows the call stack with "y" at index.js:4, "x" at index.js:6, and "(anonymous)" at index.js:8.

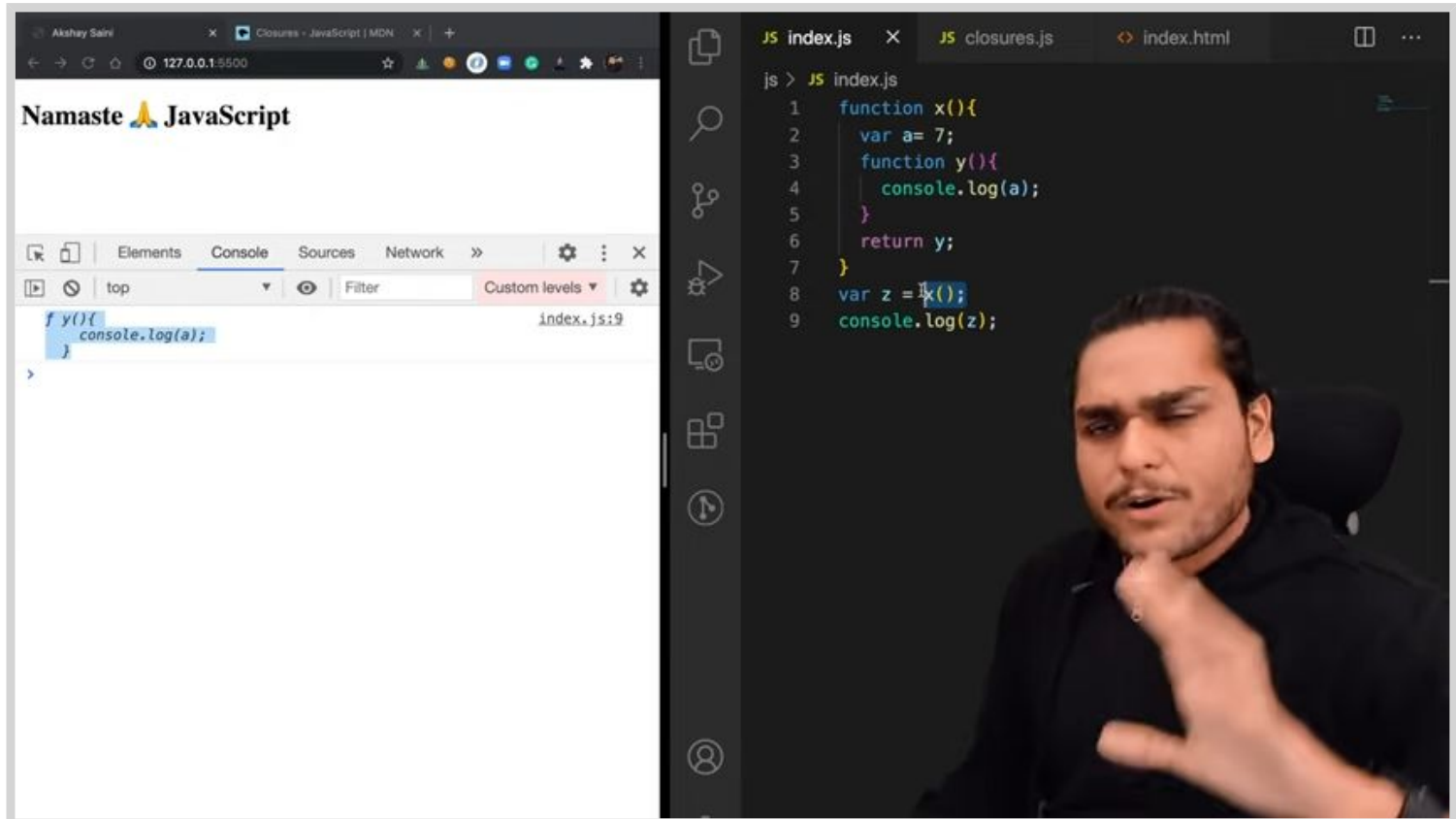
The code editor on the right shows the same code as the browser's "Sources" panel, with the following code:

```
1 function x(){  
2   var a= 7;  
3   function y(){  
4     console.log(a);  
5   }  
6   y();  
7 }  
8 x();
```

A person is visible in the bottom right corner of the screenshot, smiling.

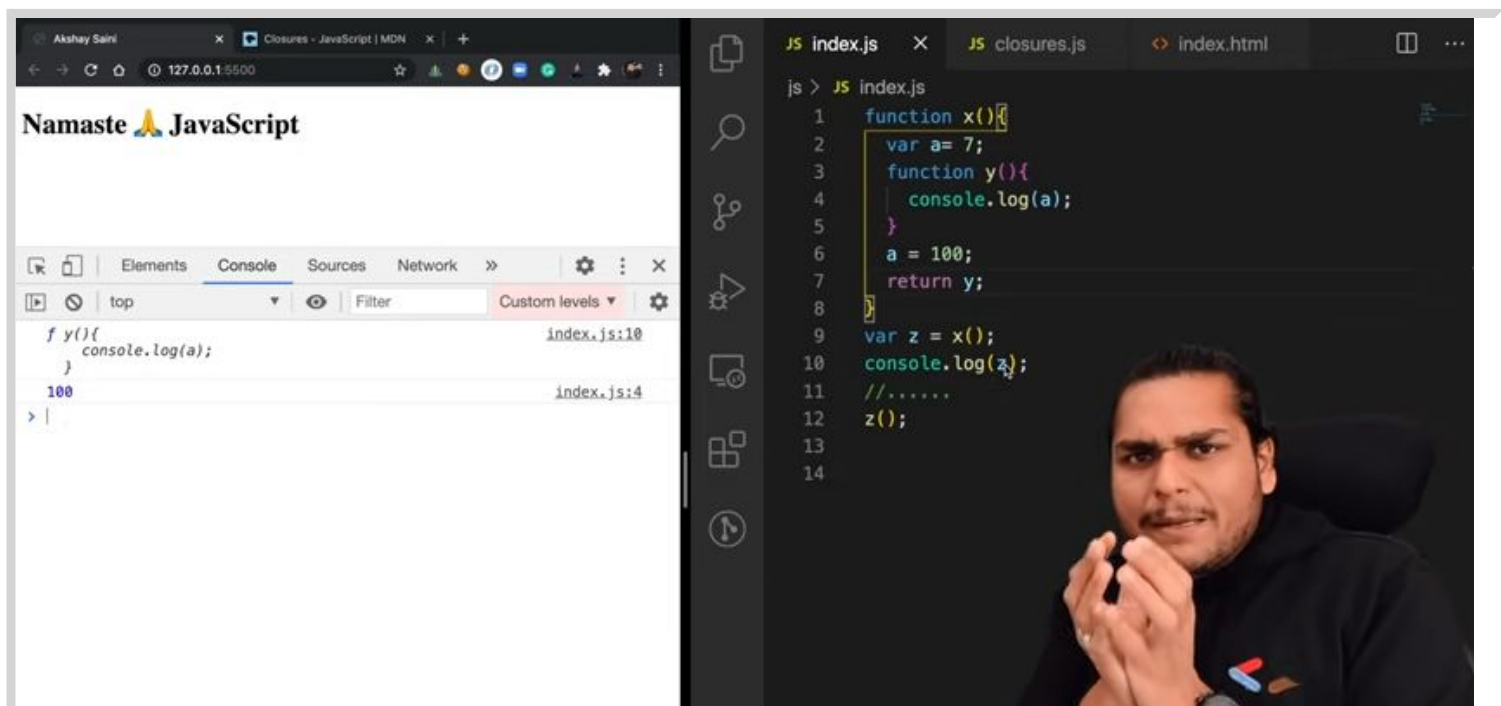


06:26

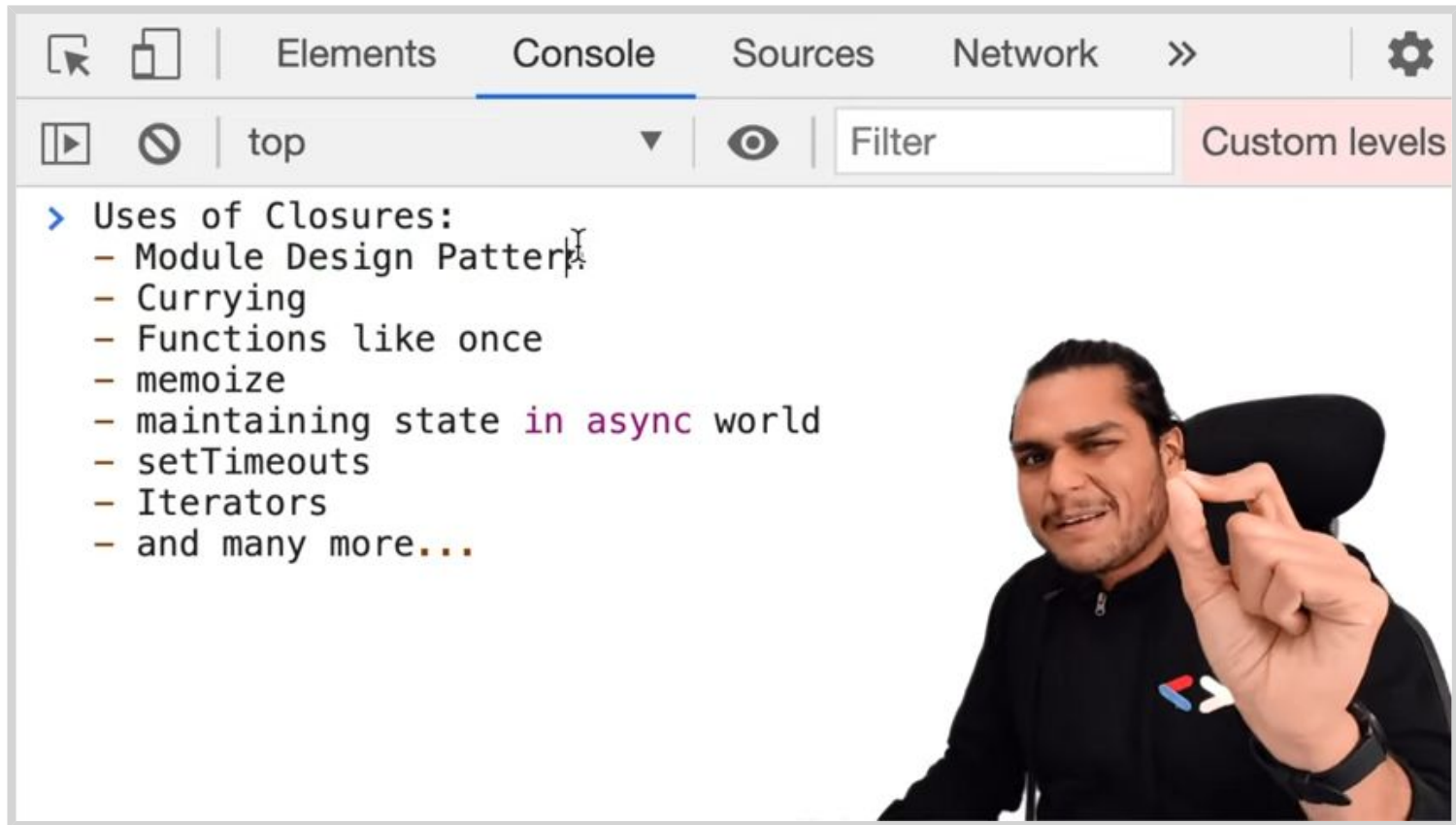


function along with its lexical scope returns

15:11



18:52



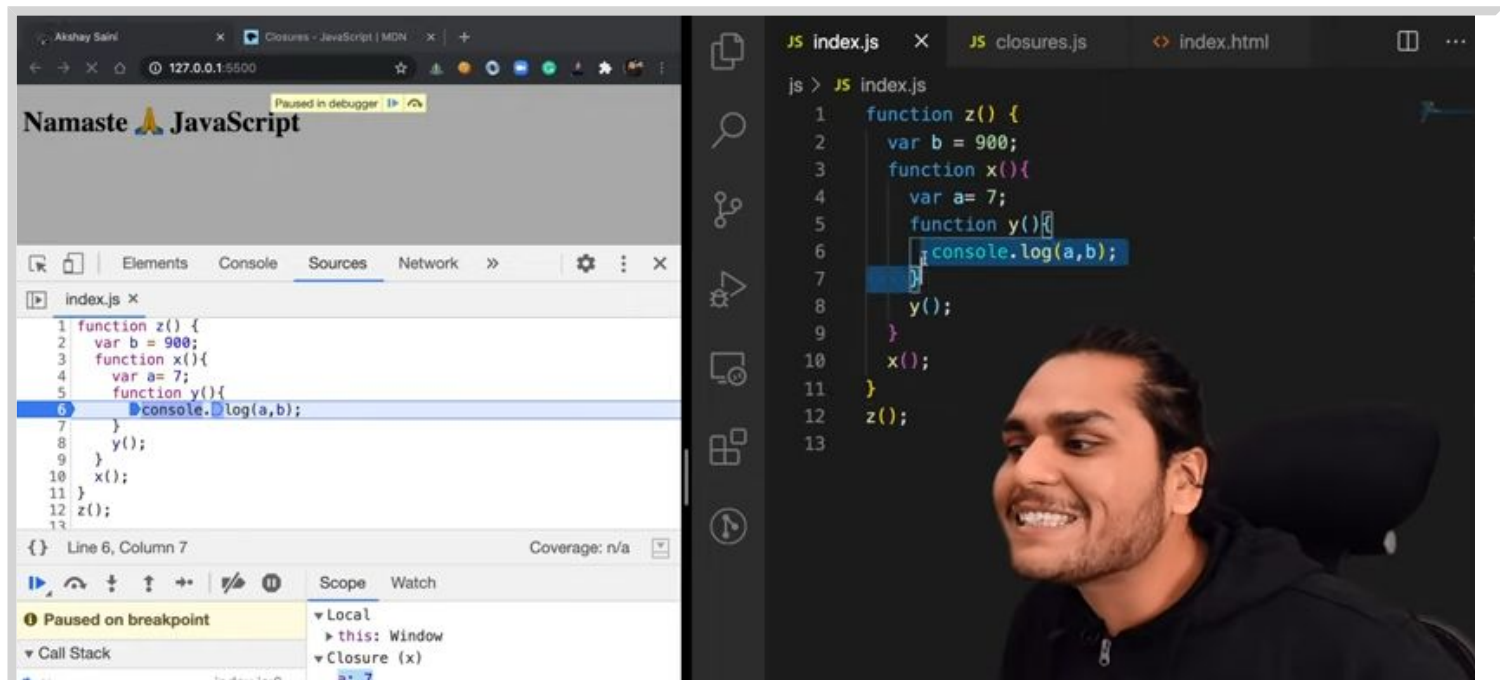
Elements Console Sources Network >> Filter Custom levels

> Uses of Closures:

- Module Design Pattern
- Currying
- Functions like once
- memoize
- maintaining state in async world
- setTimeouts
- Iterators
- and many more...

A man is visible in the bottom right corner, gesturing with his hand.

18:05



Namaste 🙏 JavaScript

Paused in debugger

JS index.js JS closures.js index.html

```
js > JS index.js
1 function z() {
2   var b = 900;
3   function x(){
4     var a = 7;
5     function y(){
6       console.log(a,b);
7     }
8     y();
9   }
10  x();
11 }
12 z();
13
```

Line 6, Column 7 Coverage: n/a

Paused on breakpoint

Call Stack

Local

- this: Window
- Closure (x)
- a: 7

A man is visible in the bottom right corner, smiling.

