

* Function Invocation and Variable Environment : —

e.g. :-

```
1  var x = 1 ;
2  a() ;
3  b() ;
4  console.log(x);
5
6  function a() {
7      var x = 10;
8      console.log(x);
9  }
10
11 function b() {
12     var x = 100;
13     console.log(x);
14 }
```

Output : —

10
100
1

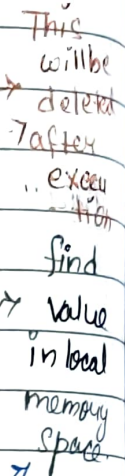
Function invocation in JavaScript means "calling" or "running" a function. When you invoke a function, you tell JavaScript to execute the code inside that function.

Defining a Function: function a() {

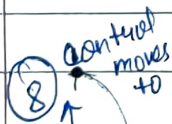
```
var x=10
console.log(x); }
```

defines a function named 'a'.

This function will print 10 when called. Similarly with function b(). => It will print 100 when called.



Call stack :-

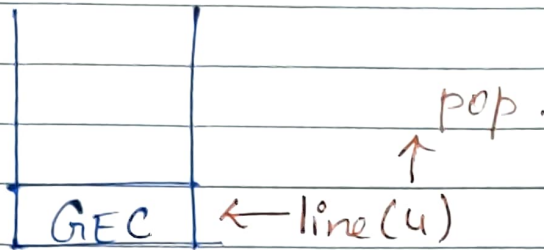




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now GEC look like : —



M	e
x: 1	console.log(x)
a: {..}	
b: {..}	

↓ After execution

* After execution — the GEC is deleted & popped from stack.

A variable environment in JavaScript is like a storage box where your program keeps track of the variables (names and values) it uses while running.

Think of it like this:

Storage Box: When you create a variable (like `let age = 25;`), it's stored in the variable environment, just like putting something in a box.

Different Boxes for Different Places: Each time you run a function, a new "box" is created just for that function's variables. After the function finishes, this box is no longer needed and is thrown away.