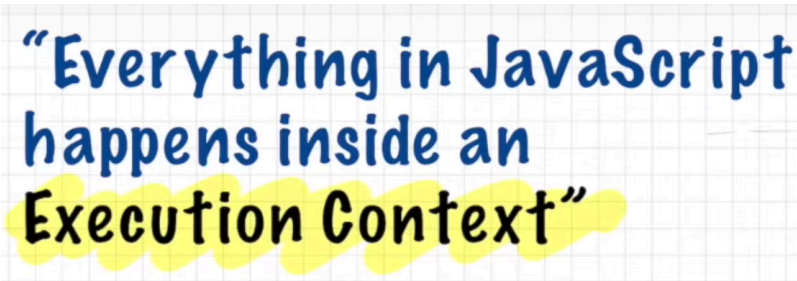
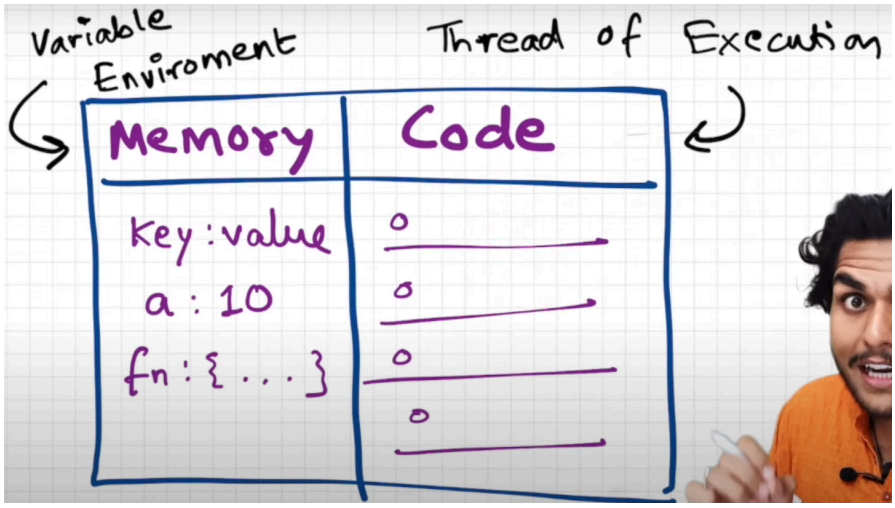
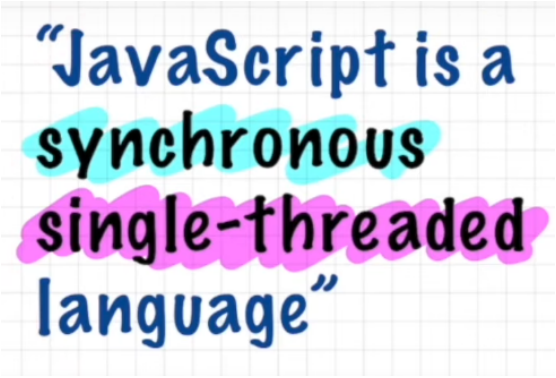
Season 1

Execution Context



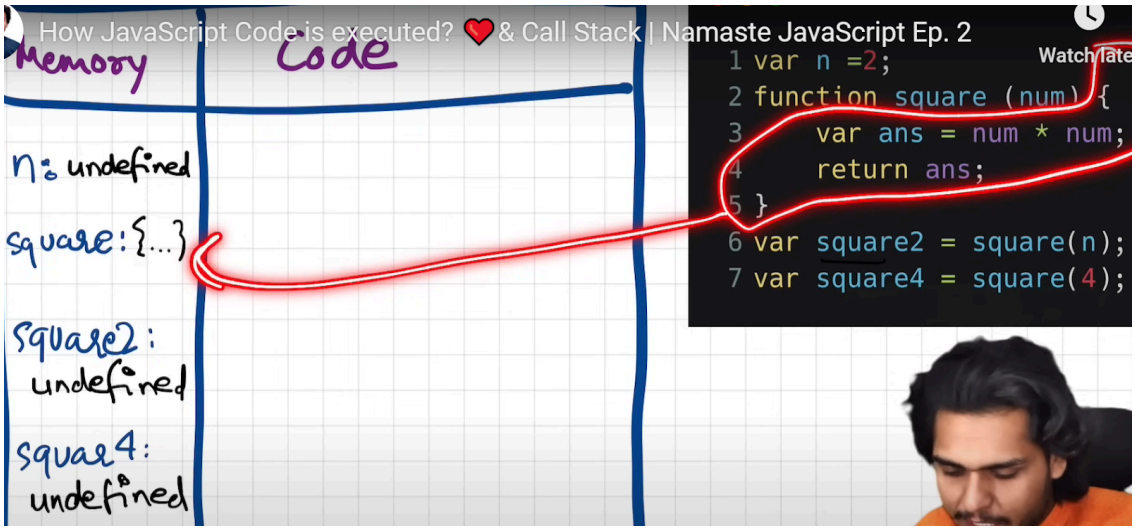


Memory component is where variables and functions are saved as key value pairs and code component is the palace where whole javascript code is executed

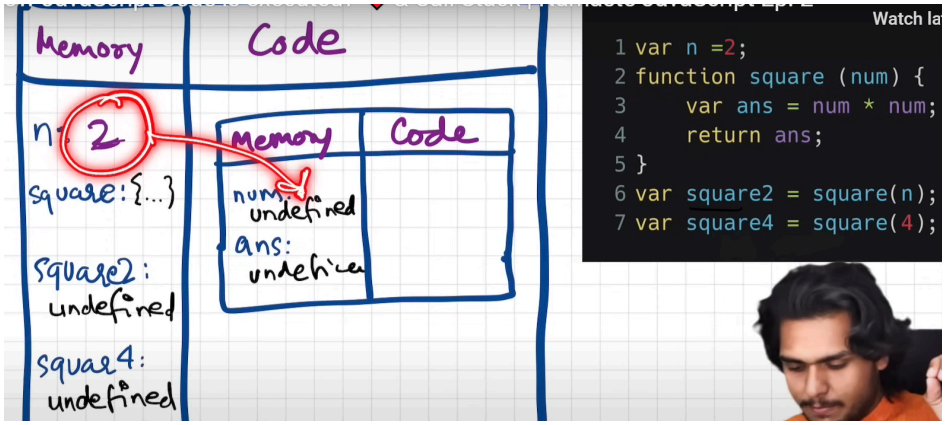


Single threaded - javascript can execute single command at a time
Synchronous - js can execute code only one command in a specific order. It will go to next line when current line is finished execution
Phase 1: Javascript engine goes through the entire code and allotted memory for variables and functions. For variables special value 'undefined' will get stored.for functions entire code will be stored and undefined value for the variables inside function

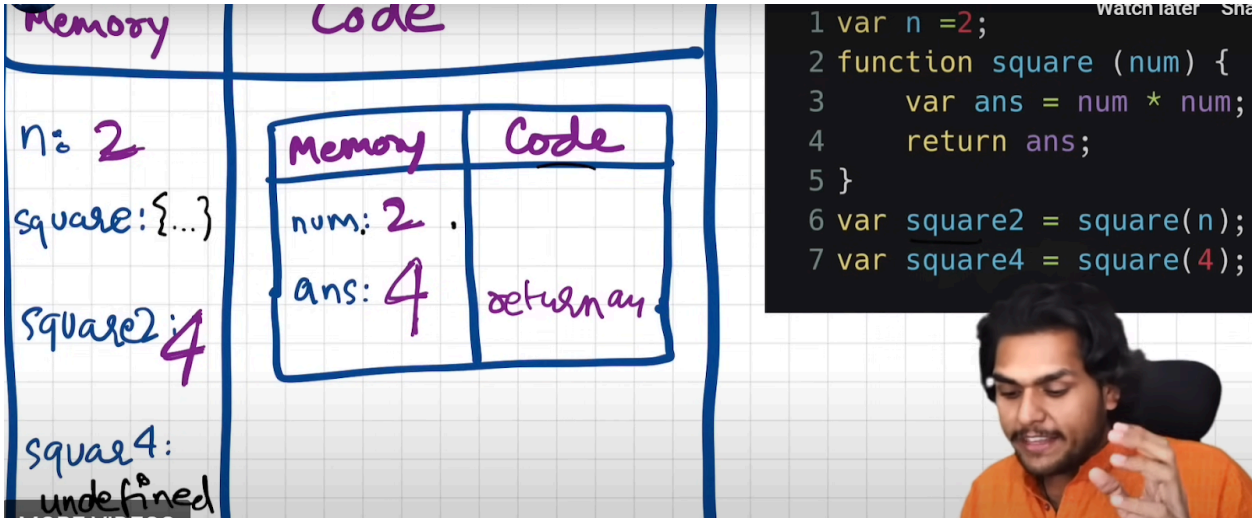
Phase 2 : execute the code line by line. In this step n = 2 function invocation function name () - square( ). For functions new execution context will be created



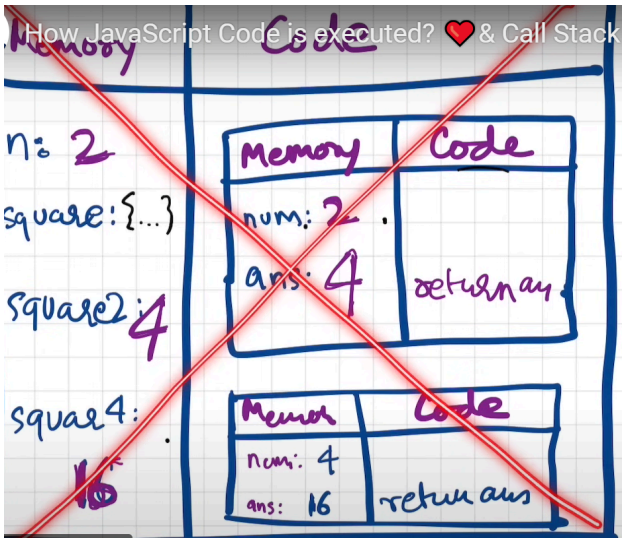
For functions, new memory context will be created



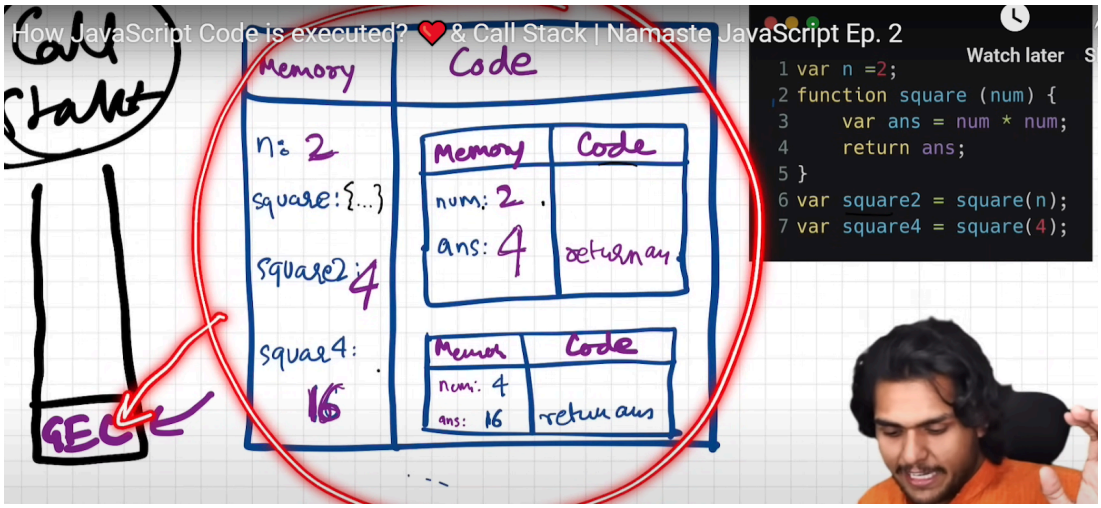
After the function execution once it completed the execution context will be deleted automatically



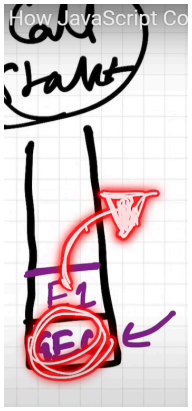
Once the entire code gets executed, Entire global context will be deleted



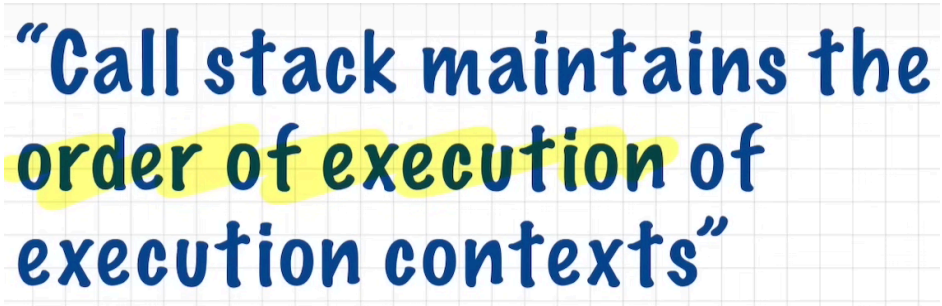
Call Stack

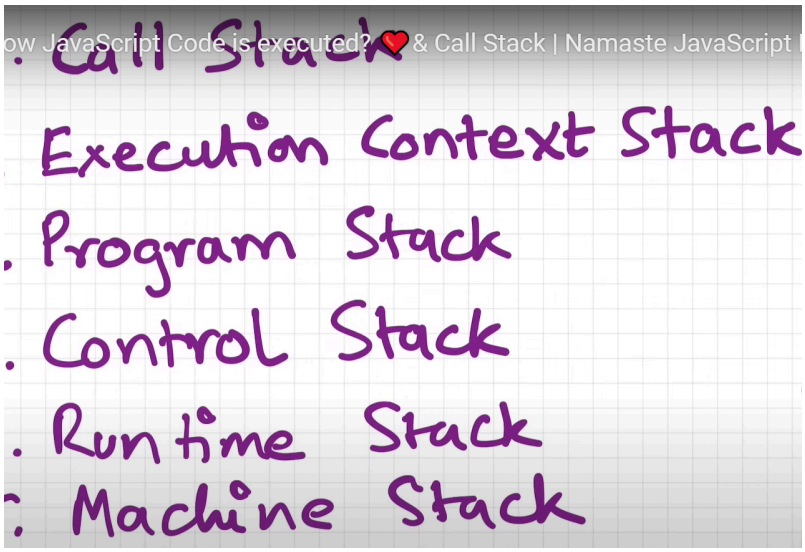


In call stack, GEC global execution context will get created as a first step. Then E1 execution context for function square(n) will go next to the call stack. After it E1 got executed it will popped out from stack and the control moved to GEC where it left for example to line# 6 here



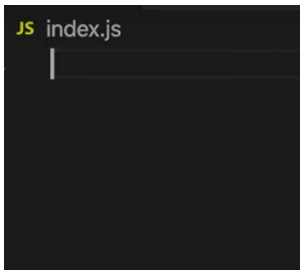
entire execution context creation and deletion is managed by callstack in javascript



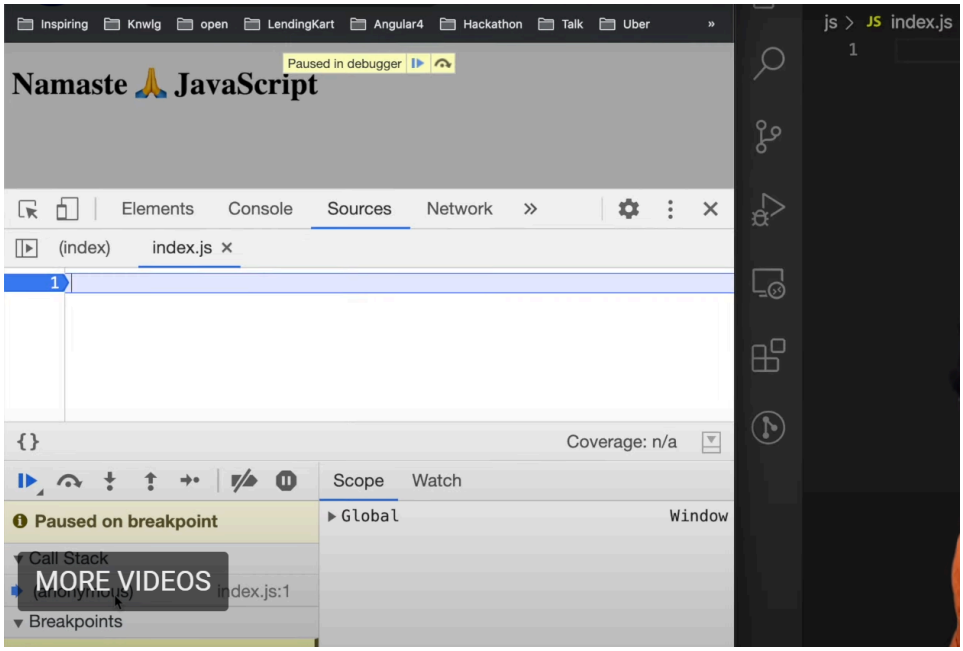


Shortest Javascript Program

Shortest Javascript program is just an empty file

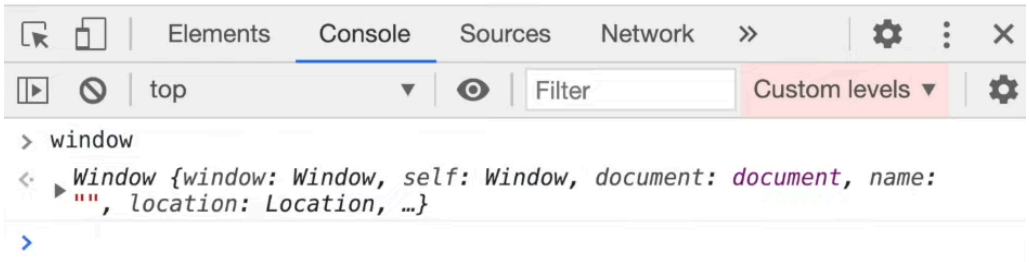


Debugger in an empty file - global execution context is created

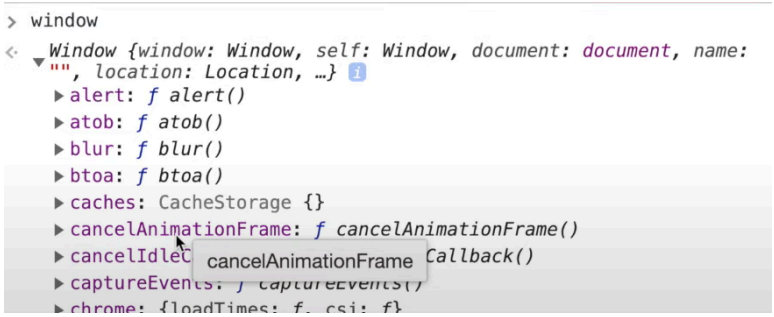


Javascript engine will create a window. You can see it in console

We didn't put window inside our code. JS engine creates on its own



The variables and functions are created by JS engine and put in the global execution context



JS engine will also create 'this' keyword