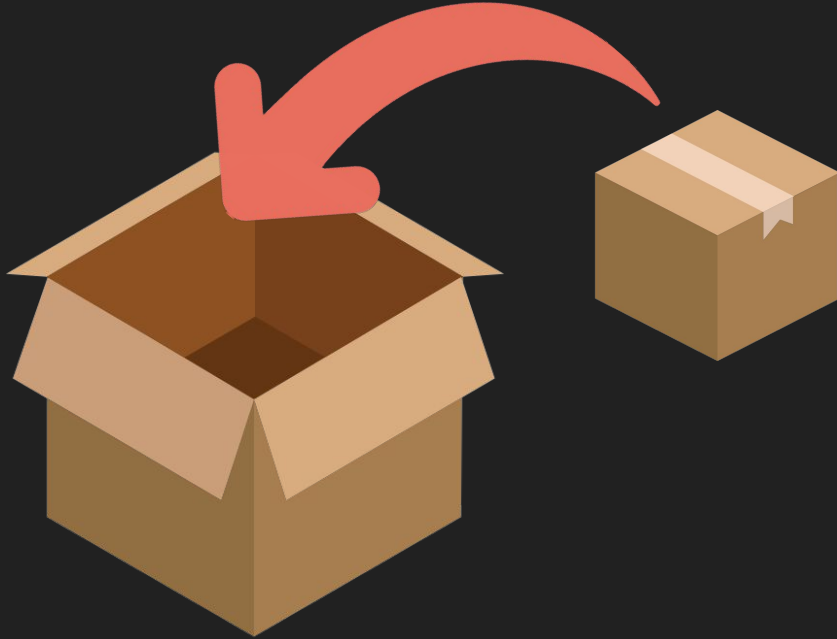


JS

Closures in JS

What is Closures ?

- When a function is defined inside another function, it creates a closure.



- The inner function retains access to the outer function's variables, forming a link to its lexical scope.



PURE FUNCTION



```
function greeting(x){  
  return ` Hello ${x} 🖐️ `  
}  
  
console.log(greeting("Bob"))
```

IMPURE FUNCTION



```
let x = "Bob"  
  
function greeting(){  
  return `Hello ${x} 🖐️ `  
}  
  
console.log(greeting())
```

CALL STACK



Pure functions

Short lived

HEAP MEMORY



Impure functions / closure

Long Lived

More computation

More memory



```
function outerFunction() {  
  var outerVariable = 'I am from the outer function';  
  
  function innerFunction() {  
    console.log(outerVariable);  
  }  
  
  return innerFunction;  
}  
  
var closureFunction = outerFunction();  
closureFunction(); // Outputs: "I am from the outer function"
```