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QN. 6.

//Old way

const count = {

'counter':0,

'add': (function () {

var self = this;

self.counter = 0;

return function () {

return self.counter += 1;

}

})(),

'reset': (function () {

var self = this;

self.counter = 0;

//let counter = 0;

return function(){ return self.counter =0;}

})()

};

// New way

const count7 = {

'counter':0,

'add': (function () {

this.counter = 0;

return function () {

const setCounter = (()=>this.counter += 1);

return setCounter();

//return this.counter += 1;

}

})(),

'reset': (function () {

return function(){ const setCounter = (()=>this.counter = 0);

return setCounter();}

})()

};

Qn. 7

* Free variable = counter
* A free variable is a variable being used inside a function or block of code but when it is not defined inside that scope.

Qn 8.

function make\_adder(inc) {

var counter = 0;

return function () {

return counter += inc;

}

}

Qn 9.

You can use an IIFE – Immediately Invoked Function Expression to remove the variables and function names from the global name space or use a block scope code and one your const and let and never var.

Qn 10.

const *employeeModule* = (function () {  
 let *name*;  
 let *age*;  
 let *salary*;  
  
 const *setAge* = function (*newAge*) {  
 *age* = *newAge*;  
 };  
 const *setSalary* = function (*newSalary*) {  
 *salary* = *newSalary*;  
 };  
 const *setName* = function (*newName*) {  
 *name* = *newName*;  
 };  
 const *getAge* = function () {  
 return *age*;  
 };  
 const *getSalary* = function () {  
 return *salary*;  
 };  
 const *getName* = function () {  
 return *name*;  
 };  
 const *increaseSalary* = function (*percentage*) {  
 *salary* = *getSalary*() + *percentage* \* 0.01;  
 };  
 const *incrementAge* = function () {  
 *age* += 1;  
 };  
 const *toString* = function () {  
 return `Name: ${*getName*()} | Age: ${*getAge*()} | Salary: ${*getSalary*()} `;  
 };  
 return {  
 setAge: *setAge*,  
 setSalary: *setSalary*,  
 setName: *setName*,  
 increaseSalary: *increaseSalary*,  
 increaseAge: *incrementAge*,  
 toString: *toString* };  
})();

Qn. 11

*employeeModule*.address = "";  
*employeeModule*.getAddress = function () {  
 return *employeeModule*.address;  
};  
*employeeModule*.setAddress = function (*newAddress*) {  
 *employeeModule*.address = *newAddress*;  
};  
  
*employeeModule*.setAddress("fairfield");