**6. Answer**

var count = (function(){

    var counter = 0;

    const addCounter = function(){

        return ++counter;

    };

    const resetCounter = function(){

        counter = 0;

        return counter;

    };

    return{

        add: addCounter,

        reset: resetCounter

    };

})();

7. Answer

In the above example the free variable is counter because It is not a parameter and declared inside the closure.

Free variable are the variable which is not a parameters and declared inside in a function. These variable comes from the outer scope of that function.

8. Answer

var make\_adder = function(inc){

    var counter = 0;

    return function(){

        counter+=inc;

        return counter;

    };

};

9. Answer

Simple modification is to make the module and move all the variable declaration and list of the function into that module and give it a name.

10. Answer

1. let employee = (function(){
2. let name = "";
3. let age = "";
4. let salary = 0.0;
5. let setAge = function(newAge){
6. age = newAge;
7. };
8. let setSalary = function(newSalary){
9. salary = newSalary;
10. };
11. let setName = function(newName){
12. name = newName;
13. };
14. let getAge = function(){
15. return age;
16. };
17. let getSalary = function(){
18. return salary;
19. };
20. let getName = function(){
21. return name;
22. };
23. let increaseSalary = function(percentage){
24. setSalary(getSalary()\*(1+percentage/100));
25. };
26. let incrementAge = function(){
27. setAge(getAge()+1);
28. };
29. return {
30. setAge,setSalary, setName,increaseSalary,incrementAge,
31. toString: function(){
32. return `Name:${getName()} Age:${getAge()} Salary
33. ${getSalary()}`;
34. }
35. };
36. }());

I have return extra toString method and make it public to print the name salary and age for the test purpose;

11. Answer

let address = (function () {

    let state = "";

    let zip = "";;

    let city = "";;

    let setState = function (newState) {

        state = newState;

    };

    let setZip = function (newZip) {

        zip = newZip;

    };

    let setCity = function (newCity) {

        city = newCity;

    };

    let getCity = function () {

        return city;

    };

    let getState = function () {

        return state;

    };

    let getZip = function () {

        return zip;

    }

    return {

        setCity, setState, setZip, getCity, getState, getZip,

        toString: function () {

            return `City ${getCity()} State ${getState()} Zip ${getZip()}`;

        }

    };

})();

let employee = (function () {

    let name = "";

    let age = "";

    let salary = 0.0;

    let address = null;

    let setAddress = function (newAddress) {

        address = newAddress;

    }

    let getAddress = function () {

        return address;

    }

    let setAge = function (newAge) {

        age = newAge;

    };

    let setSalary = function (newSalary) {

        salary = newSalary;

    };

    let setName = function (newName) {

        name = newName;

    };

    let getAge = function () {

        return age;

    };

    let getSalary = function () {

        return salary;

    };

    let getName = function () {

        return name;

    };

    let increaseSalary = function (percentage) {

        setSalary(getSalary() \* (1 + percentage / 100));

    };

    let incrementAge = function () {

        setAge(getAge() + 1);

    };

    return {

        setAge, setSalary, setName, increaseSalary, incrementAge,

 getAddress, setAddress, address,

        toString: function () {

            return `Name:${getName()} Age:${getAge()} Salary ${getSalary()}\nAddress: ${getAddress().toString()}`;

        }

    };

}());