Student ID: 612413 Full Name: Boaz Turyahikayo

## No 6:

```
const count = (function () {
    let counter = 0;
    function add() {
        return counter += 1;
    }
    function reset() {
        counter = 0;
    }
    return {
        add: add,
        reset: reset
    }
})();
```

#### No 7:

The free variable is counter.

A free variable is the variable that is referred to inside a function and is not one of its parameters or locally defined variables in the function.

# No 8:

```
var add_maker = (function (x) {
    let counter = 0;
    return function () {
        return counter += x;
    }
});
```

## NO 9:

Declares and immediately calls an anonymous function

## No 10:

```
const Employee = (function () {
  let name = ", age = 0, salary = 0;
  const getAge = function () {
     return age;
  }
  const getSalary = function () {
     return salary;
  }
  const getName = function () {
     return name;
  }
  const setAge = function (a) {
     age = a;
  }
  const setName = function (n) {
     name = n;
  }
  const setSalary = function (s) {
     salary = s;
  }
  const increaseSalary = function (percentage) {
     salary += salary * percentage;
     return getSalary();
  }
  const incrementAge = function () {
     age += 1;
     return getAge();
```

```
}
        return {
           setAge: setAge,
           setName: setName,
           setSalary: setSalary,
           increaseSalary: increaseSalary,
           incrementAge: incrementAge
        }
     })();
No 11:
     Employee.address = "";
     Employee.setAddress = function(addr) {
        this.address = addr;
     };
     Employee.getAddress = function() {
        return this.address
     };
```