

Javascript Assignment 9

1. Carefully observe this example.

a) Is the InnerFunction() a closure?

b) What is output of this program

```
function OuterFunction()  
{ var outerVariable = 100;  
  function InnerFunction() {  
    alert(outerVariable);  
  }  
  return InnerFunction;  
}  
var innerFunc = OuterFunction();  
innerFunc();
```

Ans :

a) Yes , the InnerFunction() is a closure .

b) Output of the program: It will create an alert box, with output 100 in it.

1. What is the difference between a closure and a scope?

Ans :

The inner function is closure whenever you create a function within another function. This closure is usually returned so you can use the outer function's variables at a later time. Whereas a scope in JavaScript defines what variables you have access to.

3. What is a lexical scope and how is it related to closure?

Ans :

Lexical scope is the ability of a function scope to access variables from the parent scope. We call the child function to be lexically bound by that of the parent function.

A closure is the combination of a function and the lexical environment within which that function was declared.

1. Output of following closure ?

```
for (var i = 0; i < 3; i++) {  
  setTimeout(function log() {  
    console.log(i); // What is logged?  
  }, 1000);  
}
```

Ans :

□ Output : 3 3 3