1. Define Closure. Show an example, in JavaScript, of a program with a closure from chapter 11 that is not the lab. Explain how the program works.

**A function together with a referencing environment. Results when we combine a function that has free variables with an environment that provides variable bindings for all those free variables.**

**function makeCounter() {**

**var count = 0;**

**function counter() {**

**count = count + 1;**

**return count;**

**}**

**return counter;**

**}**

1. Implement the following program that takes a password argument and returns a function that accepts a password goes and returns true if the goes matches the password, with a closure.

function makePassword ( password ) {

return \_**function**\_**guess(passwordGuess)**{

return (passwordGuess === password );

};

}

1. Implement a program in JavaScript that bakes a cake and sets a timer for 10 minutes.

**Function cakeBaked(){**

**Alert(“cake is baked!”);**

**}**

**setTimeout(cakeBaked,600000)**

1. In an 80s movie, computer animated characters were forced to fight in a computerized blood sport. The ones that died were referred to as derezzed. Name the movie.

**TRON: Legacy**

1. How do closures affect scope? Explain.

**It tends to localize the previously global variable. It hold the content in its environment so it does not affect the rest of the program.**

1. What is an anonymous function? Write a line of JavaScript code that exemplifies an anonymous function.

**Window.onload = function(){**

**//code**

**};**

1. What is a nested function? Show me an example of a nested function from Chapter 11.

**A function within a function.**

**function quack(num) {**

**var sound = "Quack";**

**var quacker = function() {**

**console.log(sound);**

**};**

1. Can JavaScript determine the scope of a variable by reading the structure of code? If so, what is that called?

**Lexical scope**

1. What is a free variable and why would you use it when coding?

**Variables that aren’t defined locally and are not bound to any values**

1. When is a function declaration defined? When is a function expression evaluated?

**Function declarations are parsed first in order. Expressions are evaluated when the functions are called.**