

# COS10024 Web Development

## Lecture 9 – Recap Module 8 (JavaScript Part 2)

Dr. Gamunu Dassanayake

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# Variable and Function Definition

- Variable Definition

```
var firstName, lastName;  
var age = 10;
```

- Function Definition

```
function greet() {  
    alert("This is Nathan.");  
    alert("How are you?");  
    alert("How can I help you?");  
}
```

```
function GST(amount) {  
    var result = amount/11;  
    return result;  
}
```

# Local and Global Variables

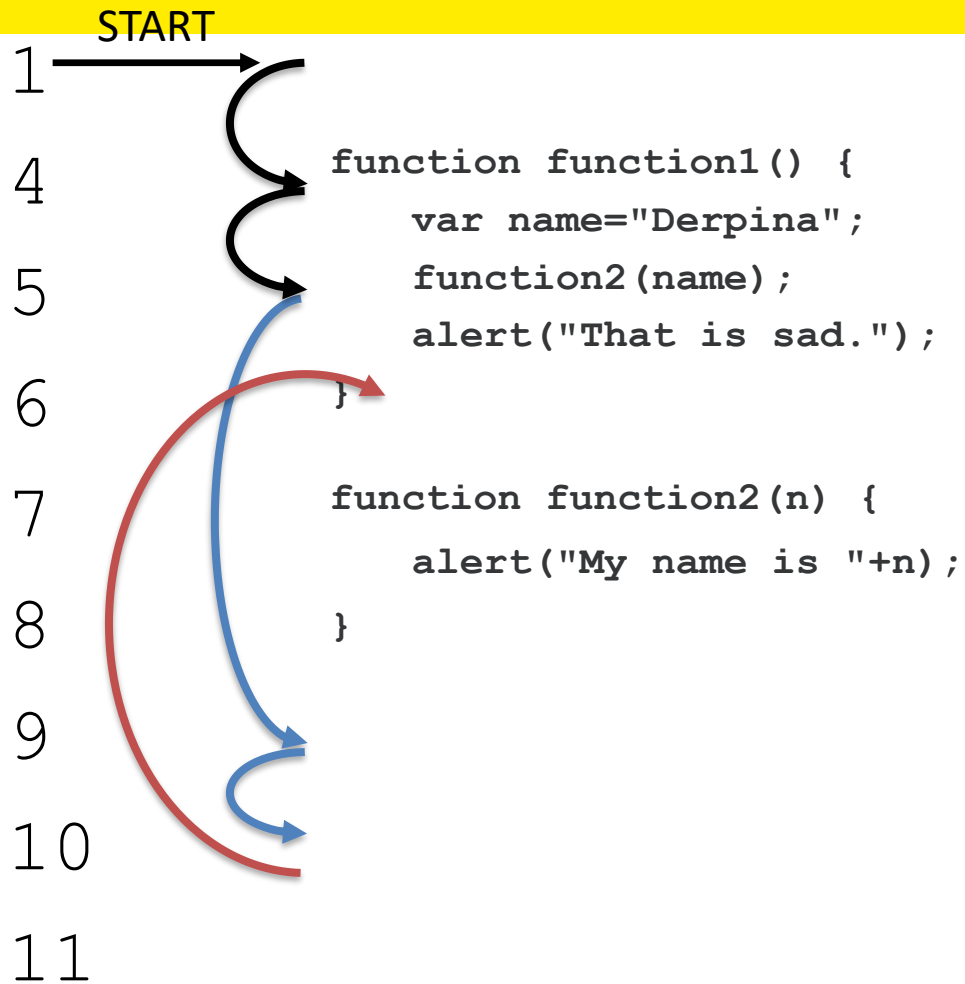
```
// script.js
var globalVariable = "Global";

function testScope1() {
    var localVariable = "Local";
    alert(localVariable);
    alert(globalVariable);
}
```

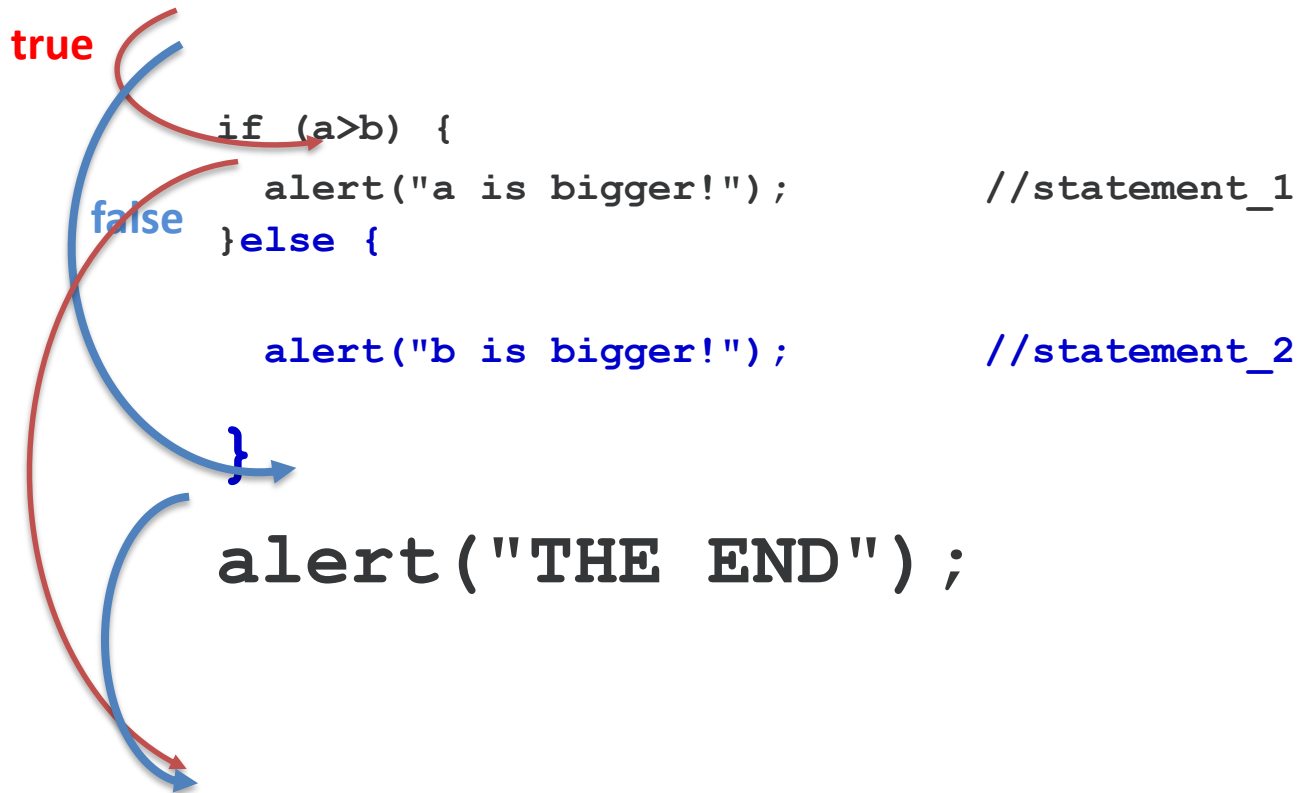
```
function testScope2() {
    alert(localVariable);
    alert(globalVariable);
}
```



# Sequence (continued)



# Selection – if statement



# Selection – if statement (continued)

```
var score;  
score = prompt("Enter a score:");  
if (score == 10) {  
    alert("Score contains 10");  
} else if (test > 10) {  
    alert("Score is greater than 10");  
} else {  
    alert("Score is less than 10");  
}
```

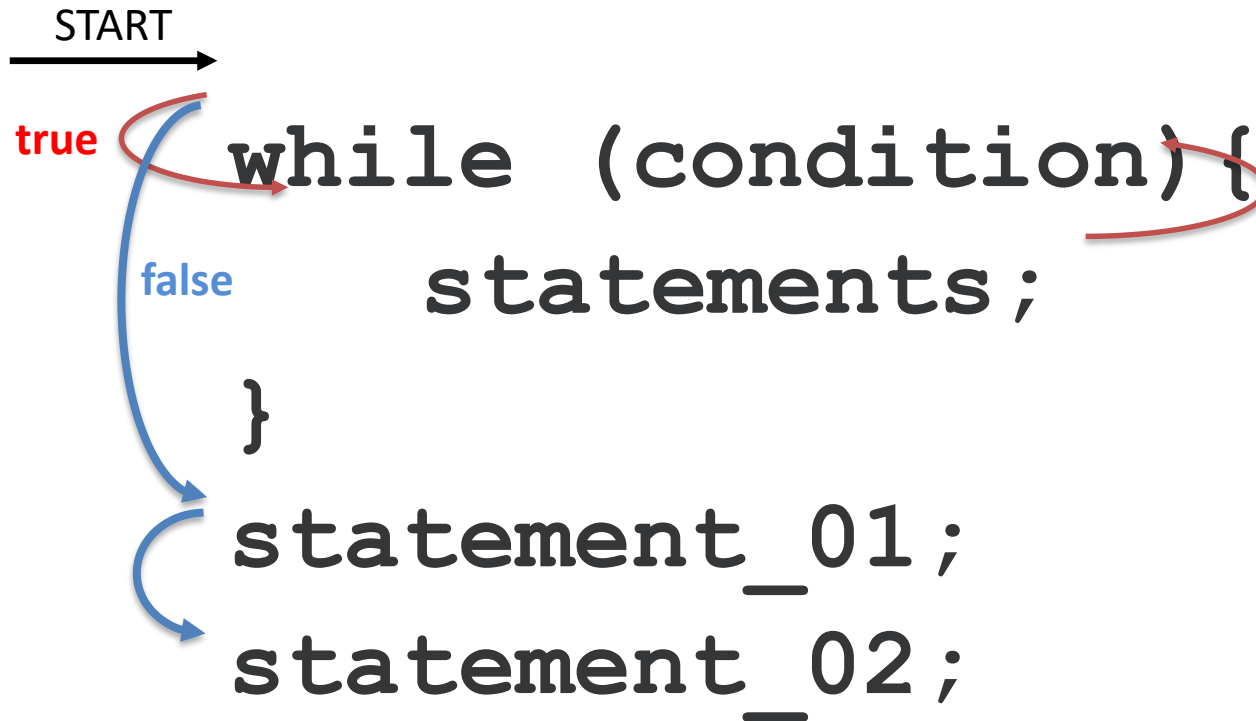
# Selection – switch statement (cont)

```
var result = "";
var fruitType;
fruitType = prompt("Enter a fruit");

switch (fruitType) {
case "Oranges":
    result = "Oranges are $3.00 a kilo.";
    break;
case "Apples":
    result = "Apples are $1.99 a kilo.";
    break;
case "Bananas":
    result = "Bananas are $2.00 each.";
    break;
default:
    result = "Sorry, we are out of " + fruitType;
}
alert(result);
```

DEMO!

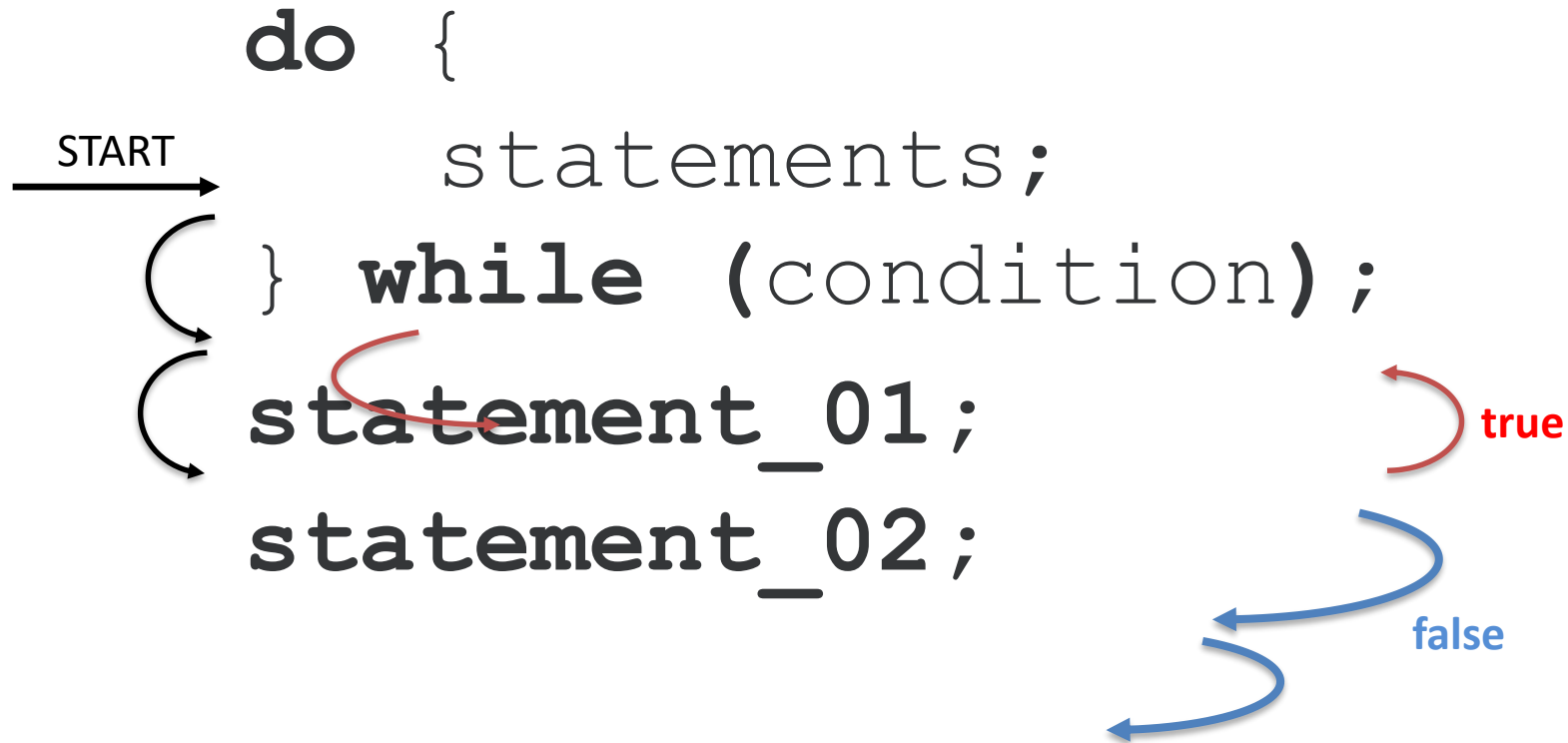
# Repetition – while loop





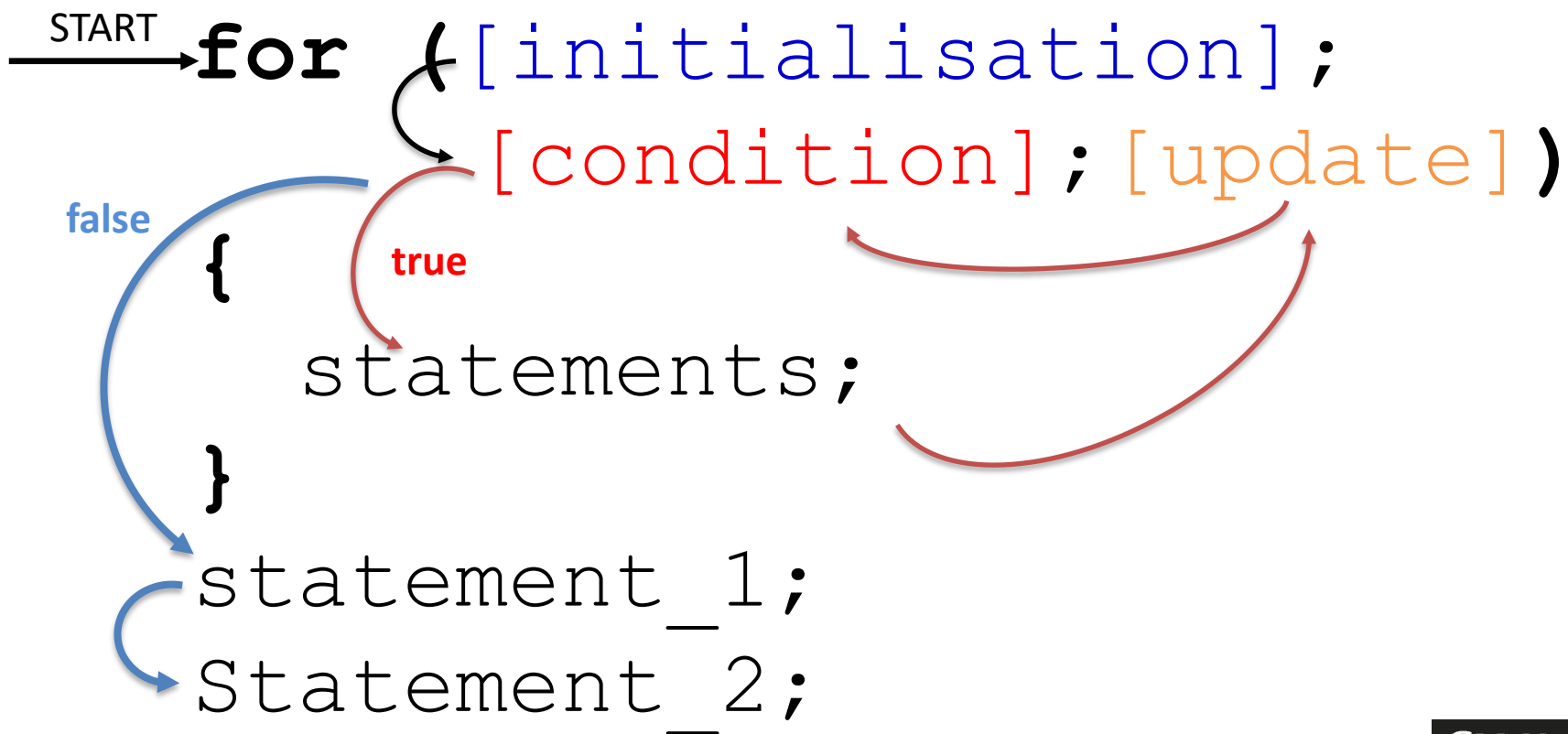
# Repetition – do while Loop

- When the condition is false, the loop stops and the program continues to execute the statement following the do while loop.



# Repetition – for statement (continued)

- The loop repeats as long as the **condition** remains true.



# Exercise – while Loop

```
var i = 0;
var sum = 0;
while (i < 3) {
    sum = sum + i;
    i = i + 1;
}
alert(sum);
```

- ***What will be displayed?***

With each iteration, the loop increments *i* and adds that value to *sum*.

Therefore, *i* and *sum* take on the following values:

After the first iteration: *i* = 1 *sum* = 1

After the second iteration: *i* = 2 *sum* = 3

After the third iteration: *i* = 3 *sum* = 6

After completing the third iteration, the condition *i* < 3 is no longer true, so the loop terminates.

# Exercise – do while Loop

```
var i = 0;
var sum = 0;
do {
    sum = sum + i;
    i = i + 1;
} while (i < 3);
alert(sum);
```

*What will be displayed?*

DEMO!

# Exercise – for Loop

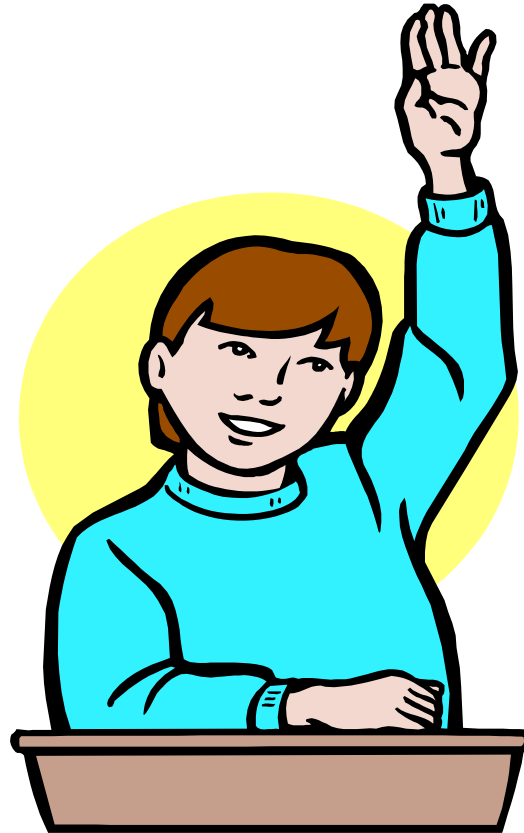
```
var i;  
var sum = 0;  
for (i = 1; i < 3; i++) {  
    sum = sum + i;  
}  
alert(sum);
```

- *What will be displayed?*

DEMO!

# Question?

- A good question deserve a good grade...



# Thanks Lot!!!

