

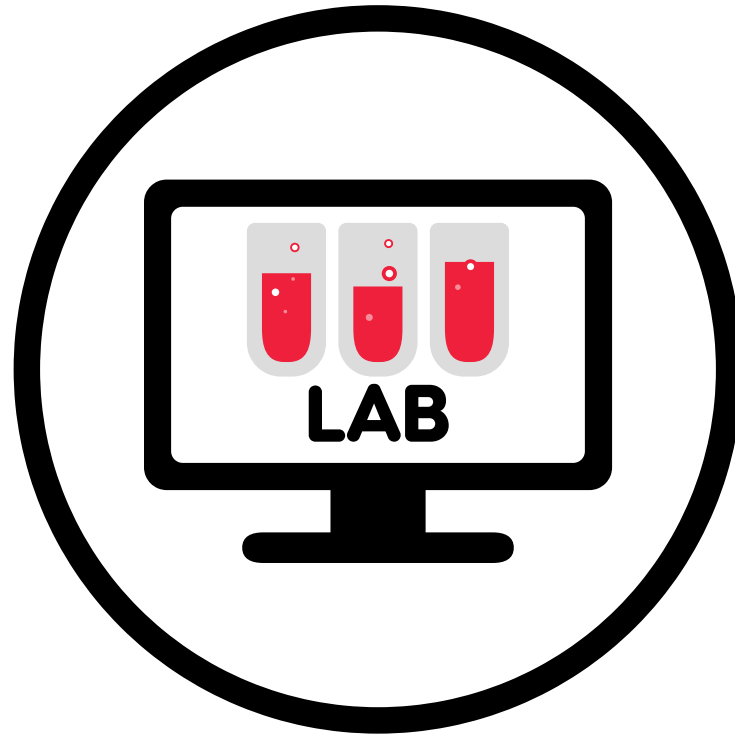


FEWD Week 6 • Class 10: Logic and Conditional Structures



Quick Review

- How do you load jQuery?
- Which method do you use to replace the contents of one or more elements with text?
- Which group of methods can be used to add and remove classes from element(s)?
- What is the basic syntax for an event handler?



Temperature Converter

What We'll Cover

- Comparison, equality and negation operators
- Logical AND and OR
- Using conditional structures for control flow

Control Flow and Logic

Objectives:

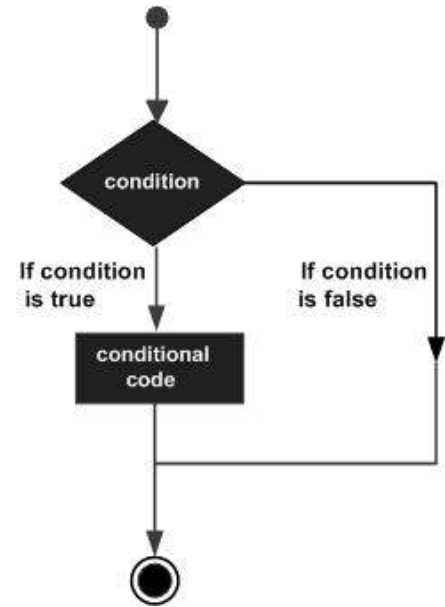
- Understand what control flow is.
- Use logic and conditional structures to enable control flow

What is Control Flow?

The control flow is the order in which the computer executes statements in a script. Code is run in order from the first line to the last, **unless** it encounters structures that change the control flow, such as *conditionals* and *loops*.

Conditional Structures

Conditional structures evaluate a statement and run the code they contain **if** the statement is **true**.



True and False

Comparison Operators

We need to understand comparison operators to write conditional statements. Some you already know.

```
6 > 5      /* true */  
5 < 11     /* false */  
11 >= 20   /* true */  
11 <= 18   /* true */
```

Equality Is Special

We know that `=` is the assignment operator. To check for equality, we need to use `==` or `===`.

```
5 == 5           /* true */
'Jen' == 'jen'   /* false */
'jen' === 'jen'  /* true */
5 == '5'         /* true */
5 === '5'        /* false */
```

► **HEADS UP:** In order for two things to be strictly equal (`===`), they must be *exactly* the same, including the data type.

Negation (NOT)

The exclamation symbol, known as bang, means *NOT*.

```
6  != 5           /* true */
'Jen' != 'Jen'    /* false */
6  != '6'         /* false */
6  != '6'         /* true  */
```

Falsy

Certain values ***always*** return false. These are called ***falsy***.

```
false      /* falsy */
0          /* falsy */
null       /* falsy */
undefined  /* falsy */
Nan        /* falsy */
''         /* (empty string) falsy */
```

Truthy

If the statement does not evaluate to false and is not falsy, it is considered truthy!

```
5          /* truthy */  
'jen'     /* truthy */  
!0        /* guess what this one is? */
```

Logical OR and AND

Logical AND is written as `&&` in Javascript.

Logical OR is written as `||` in Javascript.

```
(6 > 5) || (6 == 7)    /* true */  
(6 > 5) && (6 == 7)    /* false */
```

Short-circuit Evaluation

- `false && (anything)` is always false
- `true || (anything)` is always true



True or False?

Writing Conditionals

If Statement Syntax

```
if(condition_is_true) {  
    /* Do cool stuff */  
}
```

Using Multiple Conditions

```
if ((wifiname === 'GA-Guest') && (password === 'yellowpencil')) {  
    //Give 'em access to the wifi  
}
```



Day, Evening or Night?

If Then Syntax

```
if(condition_is_true) {  
    /* Do cool stuff when true */  
} else {  
    /* Do other stuff when not true */  
}
```



Show Password

If Else If Syntax

```
if(condition is true) {  
    /* Do cool stuff when true  
       DOESN'T CHECK ELSE IF */  
}  
else if (condition is true) {  
    /* Do cool stuff if first if condition was false  
       but second if condition is true */  
}  
else {  
    /* Stuff to do if both statements are false */  
}
```


Switch Statements

```
switch(expression) {  
    case n:  
        code block  
        break;  
    case n:  
        code block  
        break;  
    default:  
        code block  
}
```

```
switch (new Date().getDay()) {  
    case 0:  
        day = "Sunday";  
        break;  
    case 1:  
        day = "Monday";  
        break;  
    case 2:  
        day = "Tuesday";  
        break;  
    case 3:  
        day = "Wednesday";  
        break;  
}
```



Rewrite with Switch

Midterm Checkup

- Schedule office hours check in with me.
- Make sure your assignments are submitted. I will have comments back to everyone by next week.
- Final project proposals were due, if you didn't get to complete them, make sure you do so immediately.
- Draft HTML is due week 7, so start now!

Go Build Awesome Things!