Code Nation

JavaScript Fundamentals

What if

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- To understand if/else syntax
- To understand and use comparison operators
- To write programs with single condition
- To write programs with multiple conditions

Learning Objectives

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What if?

Imagine there's some music on

How do you feel about the music?

Stupid question!

Depends on what the music is!

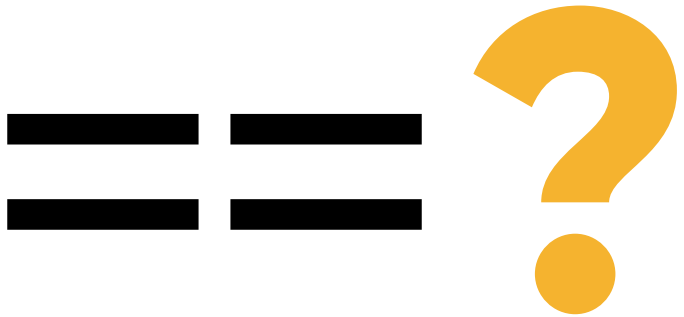
```
let music = “classical”;

if (music = “classical”) {
    console.log("Oh no it’s that classical again");
}
else {
    console.log("Nice and noisy");
}
```

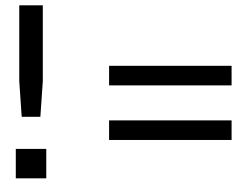
```
let music = (“classical”);

if (music = “classical”) {
    console.log("Oh no it’s that classical again");
}
if else (music = “none”) {
    console.log(“Arh, peace and quiet”);
}

else {
    console.log("Nice and noisy");
}
```

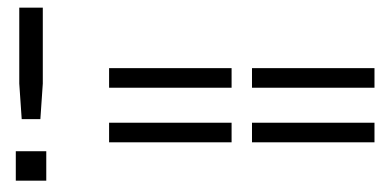
```
if (something) {
    //do this
}
else if (somethingElse) {
    //do this
}
else {
    //if nothing else matched do this
}
```

```
if (music == myMusic) {
    console.log("Oh no it's that classical again");
}
else if (music == noMusic) {
    console.log("Arh, peace and quiet");
}
else {
    console.log("Nice and noisy");
}
```

```
if (music == myMusic) {
    console.log("Oh no it’s that classical again");
}
```







==

Checks if the values are equal regardless of type

===

Checks if the values and type are equal

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!=

Checks if the values are not equal regardless of type

!==

Checks if the values and type are not equal

>=

>

<=

<

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>=

more than
or equal to

>

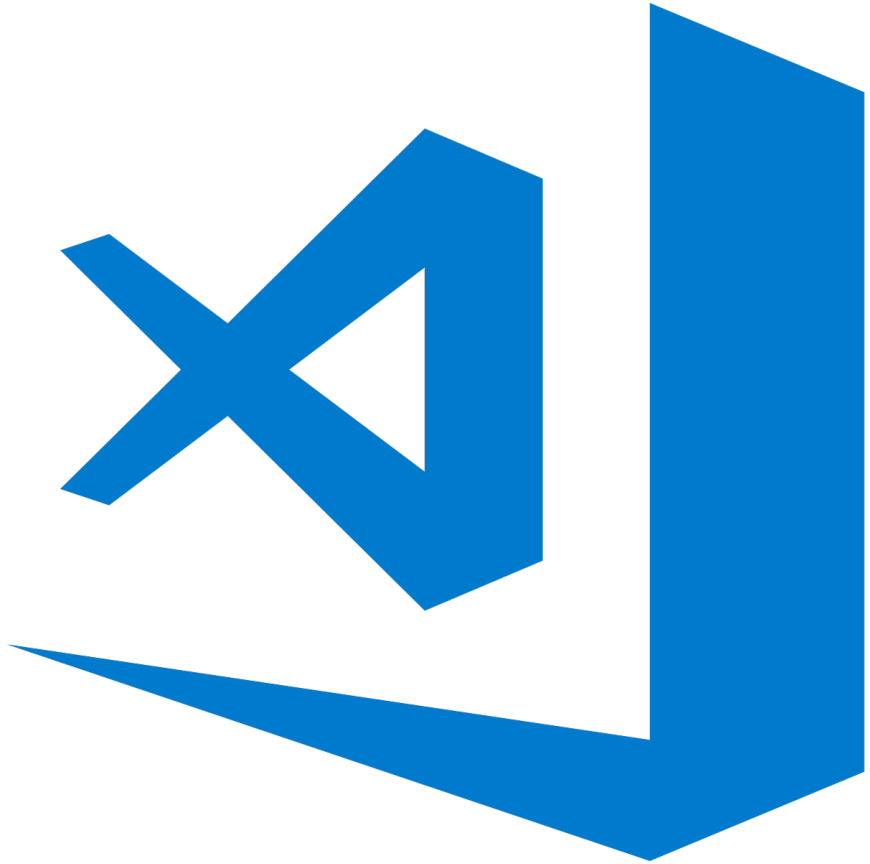
more than

<=

less than or
equal to

<

less than



To VS Code

```
if (1 === "1") {
    console.log(true);
}
else {
    console.log(false);
}
```

What is logged?

```
if (1 != "1") {
    console.log(true);
}
else {
    console.log(false);
}
```

What is logged?

Activity:

```
if (something) {
    //do this
}
else if (somethingElse) {
    //do this
}
else {
    //if nothing else matched do this
}
```

Create a **variable** called age.

Write an **if** statement that logs "Yes I can serve you" **if** age is greater then 17 and **else** logs "You aren't old enough".

And onto the next thing

```
if (place == "Manc" && weather == "Sunny") {
    console.log("Check again”);
}
else if (place == "Manc" && weather == "Rain") {
    console.log(“Obvs");
}
else {
    console.log("What it isn’t raining?”);
}
```

Activity:

Take your if statement and add a variable called country.

Now check if age > 17 **and** country == “UK”

Or not?

```
if (saturday || sunday) {
    console.log("It's weekend!”);
}
else {
    console.log("When's weekend?”);
}
```

Where are the equals?

```
let day = "Saturday";

if (day == "Saturday" || day == "Sunday"){
    console.log("It's weekend!”);
}
else {
    console.log("When's weekend?”);
}
```

```
let day = "Saturday";
```

true or false

```
if (day == "Saturday" || day == "Sunday"){
    console.log("It's weekend!”);
}
else {
    console.log("When's weekend?”);
}
```

I could even write

```
if (true || false) {
    console.log(true);
}
else {
    console.log(false);
}
```

Inside the brackets we have

```
(expressionToBeEvaluated
        logicalOperator
expressionToBeEvaluated)
```

It's only logical

And

&&

True and True —>

True and False —>

False and False —>

And

&&

True and True —> True

True and False —> False

False and False —> False

Or

||

True or True —>

True or False —>

False or False —>

Or

||

True or True —> True

True or False —> True

False or False —> False

- To understand if/else syntax
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Learning Objectives

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Challenge 1:

Create a variable called password.
Check how many letters are in the password, if there are less than 8 log to the console that the password is too short. Otherwise log the password to the console.

Challenge 2:

Create a variable called num.
Check if the variable is divisible by 3 or 5. If it is log "This number is divisible by 3 or 5" to the console.
Otherwise log "This number is not divisible by 3 or 5".

Challenge 3:

Create a variable called num.
If num is divisible by 3 log “fizz” to the console, if it’s divisible by 5 log “buzz” to the console, if it’s divisible by both 3 and 5 log “fizz buzz” to the console.
Otherwise log num to the console.

Challenge 4:

Create a variable called num.
Check if the number is a palindrome (looks the same forward as it does backwards e.g. 1001 or 20202).

Challenge 5:

Create a variable called time, a variable called placeOfWork and a variable called townOfHome. Create an if statement that logs to the console where someone is at times of the day. E.g. if the time is 7 I'm at home, at 8 I'm commuting, at 9 I'm at work.

Challenge 6:

Take the string "jrfndklhgfndjkjlkgperfijfhdknsadcvjhiiohjfkledsopiuh gtyujwsdxcvhgfdjhiopiwquhejkdsoiufghedjwshi". Find the index of a last vowel in the string.

Challenge 7:

Create a variable called word that takes a string. Create an if statement that checks if the last letter is the same as the first. If it is return true, otherwise return false.

Challenge 8:

Create two variables called num1 and num2. Create an if statement that checks if the result of the sum is even. If it is return the number, otherwise return the numbers multiplied together.