

IF/ELSE TERNARY SWITCH ETC.

THERE IS NOTHING WRONG WITH BEING UNSURE SO ASK QUESTIONS!
THIS IS YOUR LEARNING TIME!

PREVIOUSLY ON JAVASCRIPT 101...

We learnt:

- Adding JS to HMTL
- Variables
- Data types
- Concatenating
- Basic/logical operators
- Coding challenges

IF/ELSE

- If/else is a conditional statement that allows us to run a block of code if certain conditions are met.

If (**this is true**) {

do this

} else {

do this instead

}

```
var name = 'Victoria';
var age = 24;

if (age > 18) {
  console.log(name + ' is of legal age to drink alcohol!');
} else {
  console.log(name + ' has a little bit of growing up to do!');
}
```

CASCADING IF/ELSE STATEMENT

- If/else statements but looooong:

```
If (this is true) {
```

do this

```
} else if (this) {
```

do this instead

```
} else if (this) {
```

do this instead

```
} else if (this) {
```

do this instead

```
} else {
```

finally do this

```
}
```

BOOLEAN LOGIC

- We can manipulate the if/else statements by using different variations of operators (which we covered with Francisco in previous lesson).
- Just a reminder an example of operators is the following: ! < > && || == ===

Just like in previous lesson, its good to look at Operator Precedence:

https://developer.mozilla.org/en-US/docs/Web/JavaScript/Reference/Operators/Operator_Precedence

*As mentioned in previous lesson, there is a big difference between == and ===.

AND | OR | NOT

- AND (`&&`) **true** if ALL are **true**
- OR (`||`) **true** if ONE is **true**
- NOT (`!`) inverts **true/false** value

AND	TRUE	FALSE
TRUE	TRUE	FALSE
FALSE	FALSE	FALSE

OR	TRUE	FALSE
TRUE	TRUE	TRUE
FALSE	TRUE	FALSE

TERNARY OPERATOR

- If/else statements but shorter.

variable = (true statement) ? do this : otherwise do this;

```
var age = 24;

var isOfAge = (age < 18) ? "you too young" : "bruh you old";

console.log(isOfAge);
```

SWITCH STATEMENT

- A long if/else statement but more efficient.

Variable

```
switch (tell me what you looking for){  
    case "option a":  
        do this;  
        break; //otherwise it will list all the options.  
    case "option b":  
        do this;  
        break;  
    case "option c":  
        do this;  
        break;  
    default:  
        since it's none of the above do this instead;  
}
```

```
var ageType = "child";  
  
switch (ageType){  
    case "child":  
        console.log('This person is a ' + ageType);  
        break;  
    case "teenager":  
        console.log('This person is a ' + ageType);  
        break;  
    case "adult":  
        console.log('This persona is an ' + ageType);  
        break;  
    case "senior":  
        console.log('This person is a ' + ageType);  
        break;  
    default:  
        console.log('whats your age again?');  
}
```

SWITCH STATEMENT WITH NUMBERS

- You can use switch statement to compare numbers. All you have to do is put the condition in brackets like so:

```
case (20 < 30):  
    console.log('blah');
```

TRUTHY/FALSY VALUES

FALSY VALUES

- Falsy value is a value that is considered false when evaluated in if/else condition:

- False
- Undefined
- Null
- 0
- ''(empty string)
- NaN

These values are not necessarily false but would be accepted as false.

TRUTHY VALUES

- Simply NOT falsy values...
- Here's an example:

```
var nameFalsy;

if (nameFalsy){
  console.log('My name is' + nameFalsy);
} else {
  console.log('My name has not be defined!: ' + nameFalsy);
}
```

WHAT WILL THE CONSOLE SHOW US?

```
var age;

if (age || age == 0){
    console.log('this statement is DEFINED');
} else {
    console.log('this statement is UNDEFINED');
}
```

CODING CHALLENGE!

- You are given a variable marks. Your task is to print:
 - **AA** if marks is greater than **90**.
 - **AB** if marks is greater than and less than **80** or equal to **90**.
 - **BB** if marks is greater than and less than **70** or equal to **80**.
 - **BC** if marks is greater than and less than **60** or equal to **70**.
 - **CC** if marks is greater than and less than **50** or equal to **60**.
 - **CD** if marks is greater than and less than **40** or equal to **50**.
 - **DD** if marks is greater than and less than **30** or equal to **40** .
 - **FF** if marks is less than or equal to **30**.

John and Mike both play basketball in different teams. In the latest 3 games, John's team scored 89, 120 and 103 points, while Mike's team scored 116, 94 and 123 points.

1. Calculate the **average score** for each team
2. Decide which teams **wins in average** (highest average score), and **print the winner** to the console. Also include the average score in the output.
3. Then **change** the scores to show **different winners**. Don't forget to take into account there might be a draw (the same average score)