

OIM3690 - Web Technologies



Conditional Statements

Conditional Statements in JavaScript

- **Conditional statements** (or **braching**) is used to do different things based on different conditions
- **Condition:**
 - An expression that evaluates to a **Boolean** value (`true` or `false`).
- **Examples:**
 - If the user is logged in, display their name. If they are not logged in, display the login button.
 - If the user enters a valid email, send a confirmation message. If the email is invalid, display an error message.
 - If the user selects the dark theme, change the page's theme to dark; otherwise, keep/change the default light theme.

Conditional statements

- Syntax:

```
if (condition) {  
    // do something;  
} else {  
    // do something else;  
}
```

- Example:

```
if (num % 2 == 0) {  
    console.log("The number is an even number.");  
} else {  
    console.log("The number is not an even number.");  
}
```

Equality Operators

- `a == b`
 - Is `a` equal to `b` ?
 - E.g. `3 == '3' // true`
- `a != b`
 - Is `a` not equal to `b` ?
- `a === b`
 - Is `a` strictly equal to `b` ?
 - E.g. `3 === '3' // false`
- `a !== b`
 - Is `a` not strictly equal to `b` ?

Relational operators

- `a > b`
- `a >= b`
- `a < b`
- `a <= b`
- `a instanceof B` : is `a` an instance of `B` ?
 - Note: `instanceof` VS. `typeof`

Logical Operators

- `(condition1) && (condition2)`
 - Are both conditions true?
- `(condition1) || (condition2)`
 - Is either condition true?
- `!(condition)`
 - Is `condition` false?

Logical Operators Examples

```
let x = 10;
let y = 5;

if (x > 5 && y < 10) {
  console.log("Both conditions are true");
} else {
  console.log("Both conditions are not true");
}

if (x > 15 || y < 2) {
  console.log("At least one condition is true");
}

if (!(x == 5)) {
  console.log("x is not equal to 5");
}
```


Complex Conditional Statements

```
if (condition) {  
    // statements1  
} else if (condition2) {  
    // statements2  
} else if (condition3) {  
    // statements3  
}  
// ...  
else {  
    // final statements  
}
```

Complex Conditional Statements Example

```
const temperature = 40;

if (temperature >= 90) {
  console.log("Phew! It's hot enough to fry an egg on the sidewalk!");
} else if (temperature >= 65 && temperature < 90) {
  console.log("Ah, it's warm and toasty like a freshly baked croissant!");
} else if (temperature >= 50 && temperature < 65) {
  console.log("It's a nice day! Perfect weather for a picnic or outdoor concert.");
} else {
  console.log("Brr, a bit chilly today! Just another typical Spring in Boston!");
}
```

Exercise: *ex15.html*

- Download *ex15.html* from [GitHub - OIM3690/resources/templates](#)
- Download 4 images of Celtics players from [GitHub](#) to "*images*" folder.
- Write a JavaScript function that listens for click events on the images:
 - Display a prompt that asks user for the name of their favorite Celtics player.
 - If the user enters the name of one of the 4 Celtics players, swap the clicked image with the image of the corresponding player.
 - If the user enters a name that is not one of the four Celtics players, display an alert with an error message.
- Update ***sitemap.html*** and **commit/push** to GitHub

Questions?

