



JavaScript Loops

Software Development Bootcamp

Understanding and Using Loops in JavaScript



Topic

Loops



What Are JavaScript Loops?

JavaScript loops allow us to execute a block of code multiple times in a structured way. They are essential for performing repetitive tasks efficiently.



Why Use Loops?

Computers excel at repetitive tasks. Loops in programming allow us to:

- Execute code blocks multiple times
- Perform tasks in various patterns
- Automate repetitive processes



The While Loop

Continuously executes the code block as long as the specified condition remains true.

```
let x = 1
while (x < 11) {
  console.log(x)
  x ++
}
```



The For Loop

- A for loop runs a specific number of times

```
for (let i = 0; i < 5; i++) {  
    console.log(i)  
}
```



The Do...while Loop

- Similar to a while loop, but it always runs at least once.

```
let bites = 0;
do {
  console.log("Take a bite of dinner.");
  bites++;
} while (bites < 3);
```



The For...of Loop

- Goes through all the values in an array

```
let chores = ["Wash dishes", "Clean room", "Take out trash"];  
for (let chore of chores) {  
  console.log("Do the chore: " + chore);  
}
```




The For...in Loop

- A for...in loop goes through the properties in an object.

```
let toyBox = { car: "red", doll:
"blue", ball: "green" };
for (let toy in toyBox) {
  console.log("This toy is a " + toy + "
and it's " + toyBox[toy]);
}
```



Common Looping Mistake: Infinite Loops

- If the condition never evaluates to `false`, the loop will run indefinitely:

```
while (true) {  
  console.log('hello')  
}
```

- To stop an infinite loop in your terminal hold down the **‘control’** and **‘c’** keys



Exercises

Potato Poem