

# JavaScript Logic (Control Flow & Loops)

## 1. If / Else Statements

Conditional statements are used to perform different actions based on different conditions.

JavaScript

```
let hour = 10;

if (hour < 12) {
  console.log("Good Morning");
} else if (hour < 18) {
  console.log("Good Afternoon");
} else {
  console.log("Good Evening");
}
```

## 2. Functions

A function is a block of code designed to perform a particular task. You "call" (invoke) it when you need it.

JavaScript

```
// Defining the function
function greet(name) {
  return "Hello " + name;
}

// Calling the function
let message = greet("John");
console.log(message); // Output: Hello John
```

## 3. Loops

Loops are handy if you want to run the same code over and over again, each time with a different value.

### For Loop:

JavaScript

```
// Run 5 times
for (let i = 0; i < 5; i++) {
  console.log("The number is " + i);
}
```

### While Loop:

JavaScript

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

## 4. Comparison Operators

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- `==`: Equal to (value only). `5 == "5"` is true.

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`===`: Strict Equal (value AND type). `5 === "5"` is false.

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`!==`: Not equal.

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`&&`: AND (both must be true).

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`||`: OR (one must be true).