



LOOPS





INTRODUCTION

- **LOOPS ARE ESSENTIAL FOR EXECUTING A BLOCK OF CODE REPEATEDLY UNTIL A CERTAIN CONDITION IS MET.**
- **THEY HELP IN REDUCING REDUNDANCY AND MAKING CODE MORE EFFICIENT.**
- **IN JAVASCRIPT, THERE ARE SEVERAL TYPES OF LOOPS INCLUDING FOR, WHILE, AND DO-WHILE.**





THE FOR LOOP:

- THE FOR LOOP IS COMMONLY USED WHEN THE NUMBER OF ITERATIONS IS KNOWN BEFOREHAND.

SYNTAX:

```
for (initialization; condition; increment/decrement) {  
    // code to be executed  
}
```

EXAMPLE:

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



THE WHILE LOOP:

- THE WHILE LOOP IS USED WHEN THE NUMBER OF ITERATIONS IS NOT KNOWN BEFOREHAND.

SYNTAX:

```
while (condition) {  
    // code to be executed  
}
```

EXAMPLE:

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