

Control Flow

Web Technologies



Lecture by
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```
<!doctype html>
<html>
  <head>
    <title>
      Web Technologies
    </title>
    <style>
      p {
        color: blue;
      }
    </style>
    <script>
      console.log("client-side");
    </script>
  </head>
  <body>
    <p>
      Welcome!
    </p>
  </body>
</html>
```


What we will cover

- **Control Flow**
 - If statement
 - Switch
 - While
 - For

Control Flow

- If statements
- Switch
- While
- For

If statement

- **Syntax**

```
if ( condition-1 ) { first statements }
```

```
else if ( condition-2 ) { second statements }
```

```
else { statements }
```

- **Example**

```
if ( age >= 18 ) {
```

```
    alert ("You may vote.");
```

```
} else {
```

```
    alert ("You are not old enough to vote."); }
```

A compound Conditional Expression

```
if ( isNaN(userEntry) || userEntry <= 0 ) {  
    alert ("Please enter a valid number greater than zero.");  
}
```

Boolean Value

- **To see if it's true**

```
if ( isValid == true ) { }
```

```
if ( isValid ) { }           // same as isValid == true
```

- **To see if it's false**

```
if ( isValid == false ) { }
```

```
if ( !isValid == true ) { }
```

```
if ( !isValid ) { }         // same as !isValid == true
```

Switch

```
Switch (expression) {  
    Case value1;  
        break;  
    Case value2;  
        break;  
    default:  
        break;  
}
```

```
switch (letterGrade) {  
    case "A": message = "good";  
        break;  
    case "C": message = "average";  
        break;  
    case "F": message = "failing";  
        break;  
    default: return "invalid grade";  
        break;  
}
```


While Loop

- Syntax

```
while ( condition ) { statements }
```

- Example

```
let i = 1;  
while (i <= 5) { alert(i);  
  i++;  
}
```

Do-While Loop

- Syntax

do { statements } while (condition);

- Example

```
let i = 0;  
result = "";  
do {  
    result += i;  
    i++; }  
while ( i < 5 );
```

For loop

- Syntax

For

(CounterInitialisation; condition; increment/decrement
Expression)

{ statements }

- Example

```
let sum = 0;
```

```
for ( let i = 1; i <= 5; i++) { sum += i; } alert (sum);
```

Try It Yourself

In this activity, you can practice creating some of the control flow statements in JavaScript.

- 1. Create an if statement using the example provided in slide 5.**
- 2. Create a while loop using the example provided in slide 9.**
- 3. Create a for loop using the example provided in slide 10.**