

Black & White Series

Conditional

JavaScript for C or Java Programmers

if structure

```
if (<condition>)  
  <block>
```

```
if (<condition>)  
  <block>  
else  
  <block>
```

- <condition>
 - parenthesis are mandatory
- <block>
 - only one instruction
 - more than one instruction
 - delimited by braces { }

Example 1

```
const x = Math.random()  
console.log(x)  
if (x < 0.5)  
  console.log('heads')  
else  
  console.log('tails')
```

Console:

```
coin: 0.8337865947265267  
tails
```

Example 2

```
const coin1 = Math.random(),  
      coin2 = Math.random()  
console.log('coin 1: ' + coin1)  
console.log('coin 2: ' + coin2)  
if (coin1 < 0.5 && coin2 < 0.5) {  
  console.log('heads and heads')  
  console.log('you win')  
}
```

Console:

```
coin 1: 0.08818858388745576  
coin 2: 0.482715182514171  
heads and heads  
you win
```

switch structure

```
switch ( <expression> )
{
    case <value1> : <instructions>
                  break;

    ...
    case <valuen> : <instructions>
                  break;
    default : <instructions>
}

```

- Jumps to the "case" whose **<constant>** is equal to the value of **<expression>**
- Otherwise jump to **default**

Example

```
const day = Math.trunc(Math.random() * 7) + 1
let wd = ''
switch (day) {
  case 1: wd = 'Sunday'; break;
  case 2: wd = 'Monday'; break;
  case 3: wd = 'Tuesday'; break;
  case 4: wd = 'Wednesday'; break;
  case 5: wd = 'Thursday'; break;
  case 6: wd = 'Friday'; break;
  case 7: wd = 'Saturday'; break;
  default: wd = 'Invalid day'
}
console.log('weekday: ' + day + ' - ' + wd)
```

Weekday: 5 - Thursday

Inline Conditional

```
<condition> ? <value_true> : <value_false>
```

- Evaluates `<condition>`:
 - if `true`, returns `<value_true>`
 - if `false`, returns `<value_false>`

```
const coin = (Math.random() < 0.5) ? 'heads' : 'tails'  
console.log('coin: ' + coin)
```

```
coin: tails
```

References

- Mozilla MDN - <https://developer.mozilla.org>
- Eloquent JavaScript -
<https://eloquentjavascript.net/>

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Web2Learn

santanche.github.io/web2learn/