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TALENT IN **TECH**NICOLOUR

Control Flow & Types

Learning Objectives

- What is the control flow

- Different types of control flow

- Type comparisons & Truthy/Falsy

Control Flow

Truthy Falsy

Try Catch

If Else If Else

throw

Switch Statements

Syntax - if statements

Declares the start of the conditional statement

This is the condition that needs to be met for the code to run

```
if (counter === 0) {
  console.log('ZERO');
}
```

This is the code that will be run if the condition is met

Syntax - if statements

```
if (condition_1) {
  // code ..
} else if (condition_2) {
  // code ..
} else if (condition_n) {
  // code ..
} else {
  // code ..
}
```

Types

- String
- Number
- Boolean
- Undefined
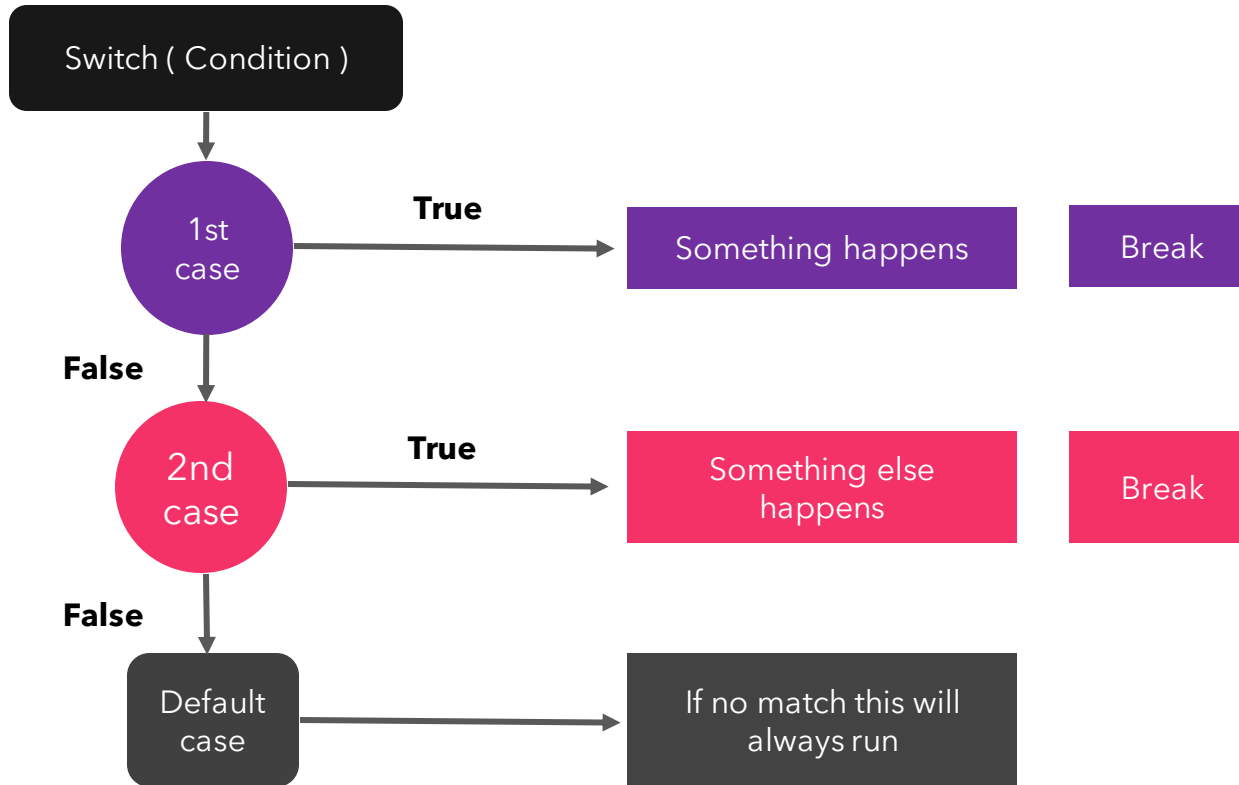- Null
- Array
- Object

```js
if (1 == "1") {
  // truthy
}
```

```js
if (true === "true") {
  // falsy
}
```

```js
const counter = 0;
if (counter) {
  // falsy
}
```

```js
const name = "";
if (name) {
  // falsy
}
```

```js
let name;
if (name) {
  // falsy
}
```

Switch cases

```
Switch ( Condition )
```

1st case

True → Something happens   Break

False

2nd case

True → Something else happens   Break

False

Default case → If no match this will always run

Syntax Switch case

```javascript
let day;
let dayOfWeek = new Date().getDay();
switch (dayOfWeek) {
  case 0:
    day = "Sunday";
    break;
  case 1:
    day = "Monday";
    break;
  case 2:
    day = "Tuesday";
    break;
  case 3:
    day = "Wednesday";
    break;
  case 4:
    day = "Thursday";
    break;
  case 5:
    day = "Friday";
    break;
  default:
    day = "Saturday";
}
```

```javascript
let day;

let dayOfWeek = 0;

console.log(day) // "Sunday"
```

```javascript
let day;

let dayOfWeek = 5;

console.log(day) // "Friday"
```

```javascript
let day;

let dayOfWeek = 6;

console.log(day) // "Saturday"
```

There's more control flow to come...

- Loops
- Try / Catch
- Errors/Exceptions

For now.. Let's go make some decisions!

Code Along

Let's create a grade calculator for students. We can use a switch case to get a percentage mark, from either A,B,C,D,E,F given in an input box.

Note: Make sure to test and find any bugs!

Extension: Make it look nice (Dribbble for inspiration?)

Challenges...

Create an if statement to check if a number is positive or negative
Use an if statement to determine the greatest of three numbers

Create a "Days until the weekend" switch case. Given a day, e.g. "Tuesday", log "Only 3 more days until the weekend". If the day isn't recognised, use a default to show "Sorry we didn't recognise that day"

Create a switch case for vegetable prices at a supermarket. It should have potatoes & carrots as the **same price** per kg, but brocolli, cabbage & asparagus as different prices.

Extension: Build a frontend for the last switchcase. Use a dropdown box with Onchange rather than onblur, and alert/show the price of each vegetable

Further reading

- [Control flow and error handling (MDN)](#)

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