Javascript - Conditionals

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We will start with the following concepts

1) What are JS conditionals ?

2) Combining JS conditionals with different operators to create real life conditions

3) Ternary operator

4) Some Dos and Don'ts

First thing first..let's get a better editor

1) From this point onwards, the programs are going to be a bit bigger, so we need a better suited text editor

2) My personal recommendation is - Sublime Text

3) You can choose your own IDE, if you want. It doesn't matter!

Everything in life comes with conditions!

- Let's look at some of the possible real life conditions that we can have -

  - If the person has purchased more than 3 items in a month on our website, let's give them a promo code.

  - If the student is scoring more than 90%, he is a topper. Give me that data.

  - If the candidate is getting more than 'x' score in learning stage on edwisor.com, move him to project stage, else ask him to earn more score. If he has "Y" score in project stage, move him to hiring stage.

  - If the match is not cancelled, we will watch it or else it will be a movie night out.

The way this is written in programming world is quite simple

- We use conditional statements or blocks to program these conditions
  - "**if**" block contains the code which is to be executed if a certain condition is true
  - "**else if**" block contains the code that is used to check for the presence of another condition
  - "**else**" block contains the code which is to be executed if the conditions if false.
  - "**Switch**" is used to specify many alternative blocks of codes to be executed based on condition

- Let's see examples on how to use them in our programs

If and else are each other's nemesis

```
if (condition) {
    block of code to be executed if the condition is true
} else {
    block of code to be executed if the condition is false
}
```

- Let's see an example

You can check for multiple conditions as well !

```
if (condition1) {
    block of code to be executed if condition1 is true
} else if (condition2) {
    block of code to be executed if the condition1 is false
and condition2 is true
} else {
    block of code to be executed if the condition1 is false
and condition2 is false
}
```
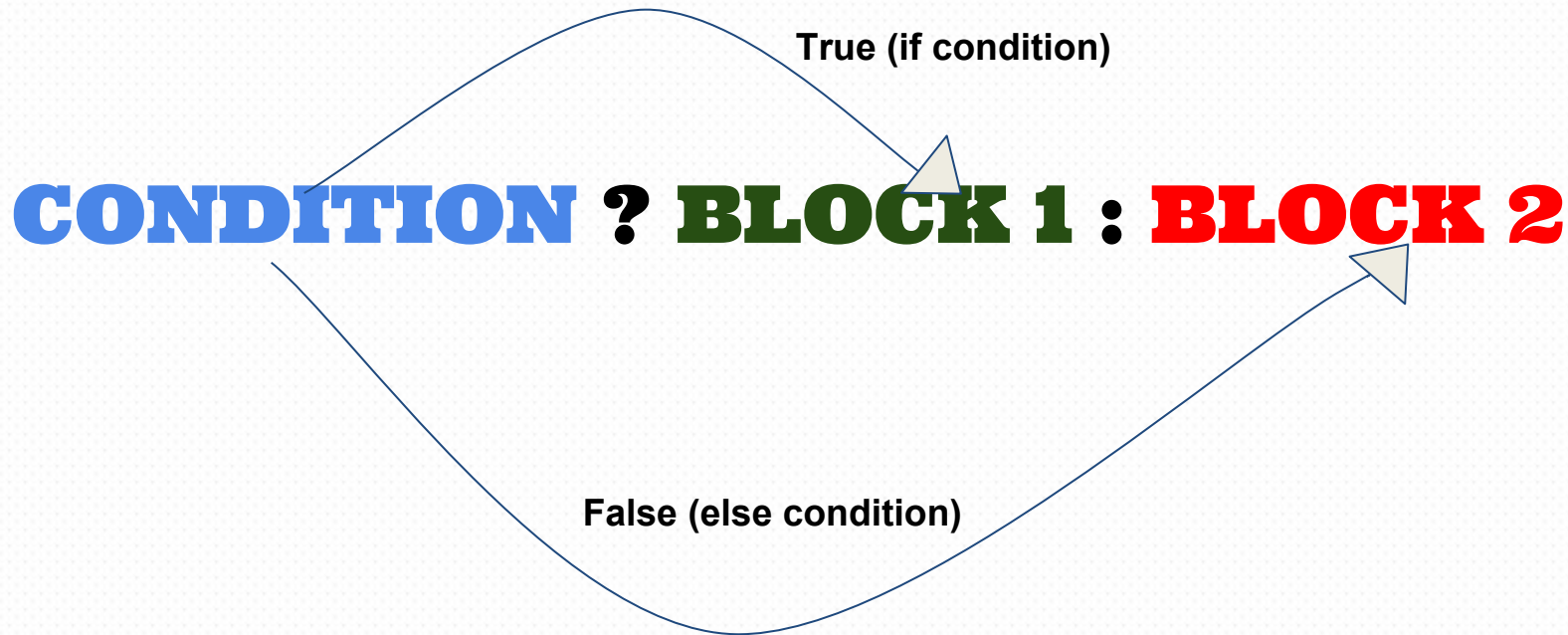
- Let's see an example

What if we want to combine multiple conditions in a single if

- We use the logical operators in that case.

- There are three types of logical operators available -
  - Or (||) - to check for presence of either of the conditions

  - And (&&)- Make sure both the conditions are true

  - Not (!) - Make sure this condition is not there.

- Lets check examples of these to understand their use.

Like short programs? use ternary operators instead of if-else

- Fun fact - ternary operator is the only javascript operator that takes three operands!

True (if condition)

CONDITION ? BLOCK 1 : BLOCK 2

False (else condition)

What if I have a wide range of conditions? Can i create a case based if-else

- You can use a switch statement in that case. Let's look at an example.

- Don't forget to set break and default

- Let's look at few complex switch statements.

```
switch(expression) {
    case n:
        code block
        break;
    case n:
        code block
        break;
    default:
        code block
}
```

Some Dos and Don'ts

- Make sure your conditions are not contradicting each other. Run them in your brain to make sure your logical is strong

- If-else are like couples. Please don't separate them.

- Else if should be embedded carefully. People often write contradicting statements there.

- Don't get into switch and if-else debate! follow the thumb rules below -
  - Switch is faster when there are too many conditions. Use it in case of more than 5 comparisons
  - In case of boolean value (true/false as a result of conditions), if-else can be faster. So prefer than in those cases.

The next steps are ...

- Javascript - Loops