

# else and else if

In this lesson, you will learn how to refine conditional statements using else and else if.

## We'll cover the following ^

- Introduction
- The else Statement
  - Control Flow
  - Syntax
  - else in Action
- The else if Statement

## Introduction #

Imagine you're playing a game of basketball. When the game ends, to decide who won, the referee counts the total points made by each team. If team **A** made a greater number of points, they would be declared the winner, else Team **B** would be declared the winner.

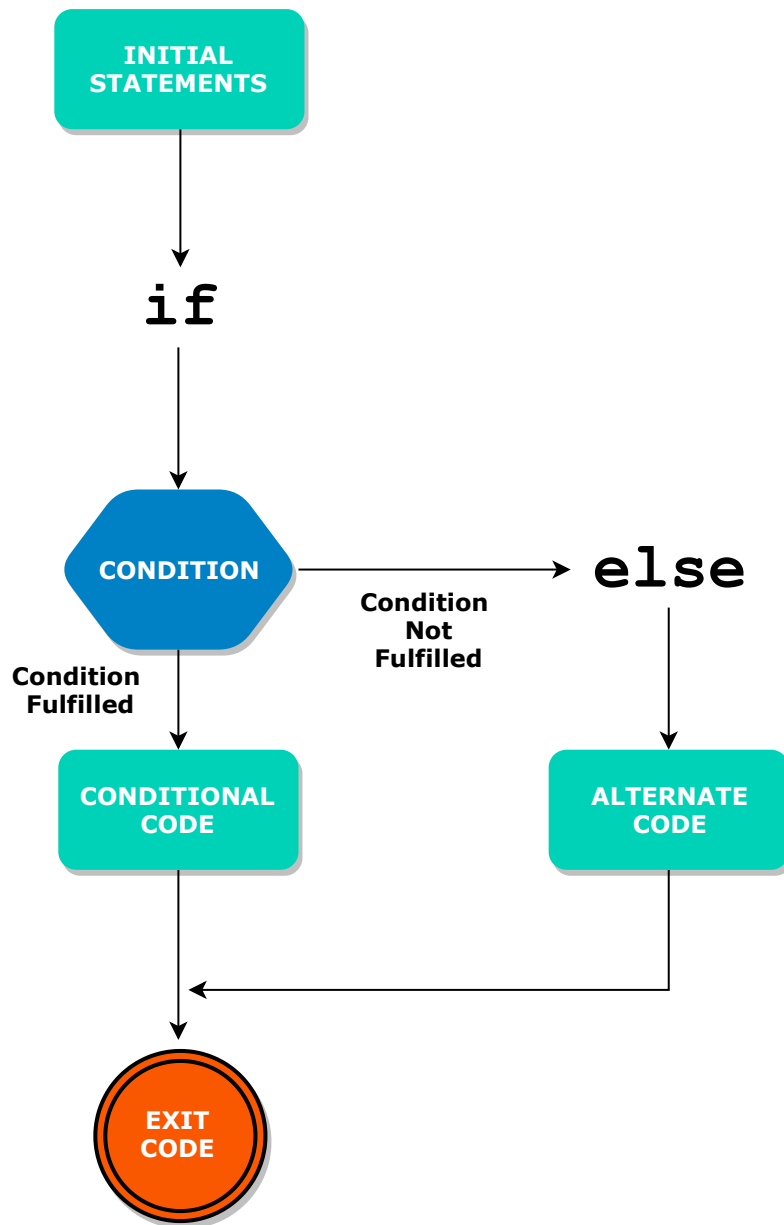
Do you see how we have two different actions depending on the outcome?

If we want to write some code for the above scenario, the first thing that comes to mind is the `if` statement. But the `if` statement won't be able to do the job on its own because it only caters to one condition and one outcome. Our scenario has two outcomes.

## The `else` Statement #

Dart provides an `else` statement. `else` is used with an `if` statement and tells the compiler what to do if the `if` condition is not fulfilled.

## Control Flow #



If the condition is not fulfilled, the compiler executes the alternate code before exiting.

## Syntax #

Let's take a look at the syntax of an `if-else` statement.

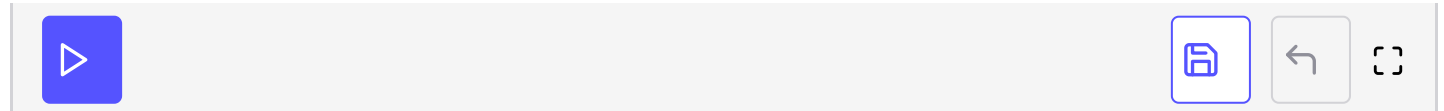
```
if (condition) {  
    conditional code  
} else {  
    alternate code  
}
```

## else in Action #

For our example, we are going to write the code for the above basketball game.

Try to see if you can figure it out before looking at the code.

```
main() {  
  var pointsA = 50;  
  var pointsB = 64;  
  
  if(pointsA > pointsB){  
    print("Team A Wins!");  
  } else {  
    print("Team B Wins!");  
  }  
}
```



The variable `pointsA` stores the number of points made by **team A** and `pointsB` stores the number of points made by **team B**.

If **team A** has a greater number of points than **team B**, i.e., `pointsA > pointsB`, **Team A Wins!** is printed. Otherwise, **Team B Wins!** is printed.

**Try it Yourself:** In the code above, **team B** has a greater number of points than **team A**. Switch the scores around and see how the output changes.

Now, what if both teams have the same number of points? The `if` condition will be false, and the code for `else` will be executed resulting in an output of **Team B Wins!** However, that is incorrect because **team B** hasn't won. Let's see how we can solve this problem below.

## The else if Statement #

`else` is great when we only have two possible outcomes. However, what would happen if we have more than two outcomes?

Dart also provides an `else if` statement. `else if` is also used with an `if` statement, however, unlike `else`, you have to specify a condition along with alternate code which will only execute if the `if` condition is false.

alternate code which will only execute if the `else if` condition is `true`.

The syntax is as follows:

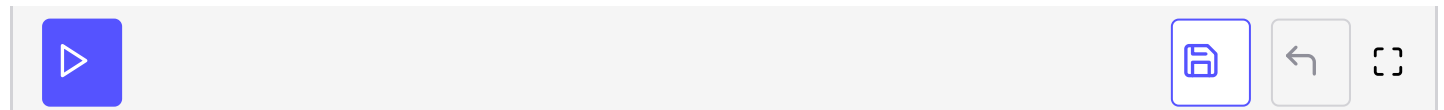
```
if (condition) {  
    conditional code  
} else if (alternate condition) {  
    alternate conditional code  
}
```

`else if` can also be used with the `else` statement.

```
if (condition) {  
    conditional code  
} else if (alternate condition) {  
    alternate conditional code  
} else {  
    alternate code  
}
```

Let's solve the problem discussed above using an `else if` statement.

```
main() {  
    var pointsA = 50;  
    var pointsB = 50;  
  
    if(pointsA > pointsB){  
        print("Team A Wins!");  
    } else if(pointsB > pointsA) {  
        print("Team B Wins!");  
    } else {  
        print("It's a Tie!");  
    }  
}
```



If **team A** has a greater number of points than **team B**, i.e., `(pointsA > pointsB)`, `Team A Wins!` is printed. Otherwise, if **team B** has a greater number of points than

**team A**, i.e., `(pointsB > pointsA)`, `Team B Wins!` is printed. Finally, if neither **team**

**A** nor **team B** has a greater number of points, by default it's a tie and `It's a Tie!` is printed.

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To wrap up our discussion on conditionals, let's take a step back into the world of operators.