Code Nation

JavaScript Fundamentals

What if

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What if?

Imagine there's some music on

How do you feel about the music?

Stupid question!

Depends on what the music is!

```
music = "Sam's music"


if music == "Sam's music":
    print("Oh no it's 00s indie again")
elif music == "No music":
    print("Peace and quiet")
else:
    print("What music is playing?")
```

Have you noticed that the code is formatted really nicely?

It's not by accident, Python is whitespace dependent

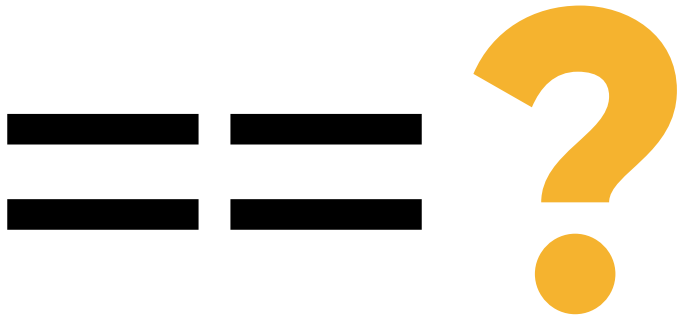
That sounds fancy but it basically mean it matters where there are indents and new lines

```
if condition1:
    #do this

elif condition2:
    #do this

else:
    #if nothing else matched do this
```

```
if music == "Sam's music":
    print("Oh no it's 00s indie again")
```



Comparison Operators

== Equal

!= Not equal

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$>=$ $>$

$<=$ $<$

To IDLE

Activity:

```
if condition:
    #do this

else:
    #if nothing else matched do this
```

Create a **variable** called age.
Write an **if statement** that logs “Yes I can serve you” **if** age is greater than 17 and **else** logs “You aren’t old enough”.

And onto the next thing

```
place = "Manc"
weather = "Cloudy"

if place == "Manc" and weather == “Sunny":
    print("Check again")

elif place == "Manc" and weather == “Rain":
    print("Obvs")

 else:
    print("What it isn’t raining?")
```

Activity:

Take your if statement and add a variable called country.

Now check if **age > 17** and **country == “UK”**

Or not?

```
day = "Saturday"

if day == "Saturday" or day == “Sunday":
    print("It's weekend!”)

else:
    print("When's weekend?”)
```

```
day = "Saturday"
```

true or false

```
if day == "Saturday" or day == “Sunday":
    print("It's weekend!”)

else:
    print("When's weekend?”)
```

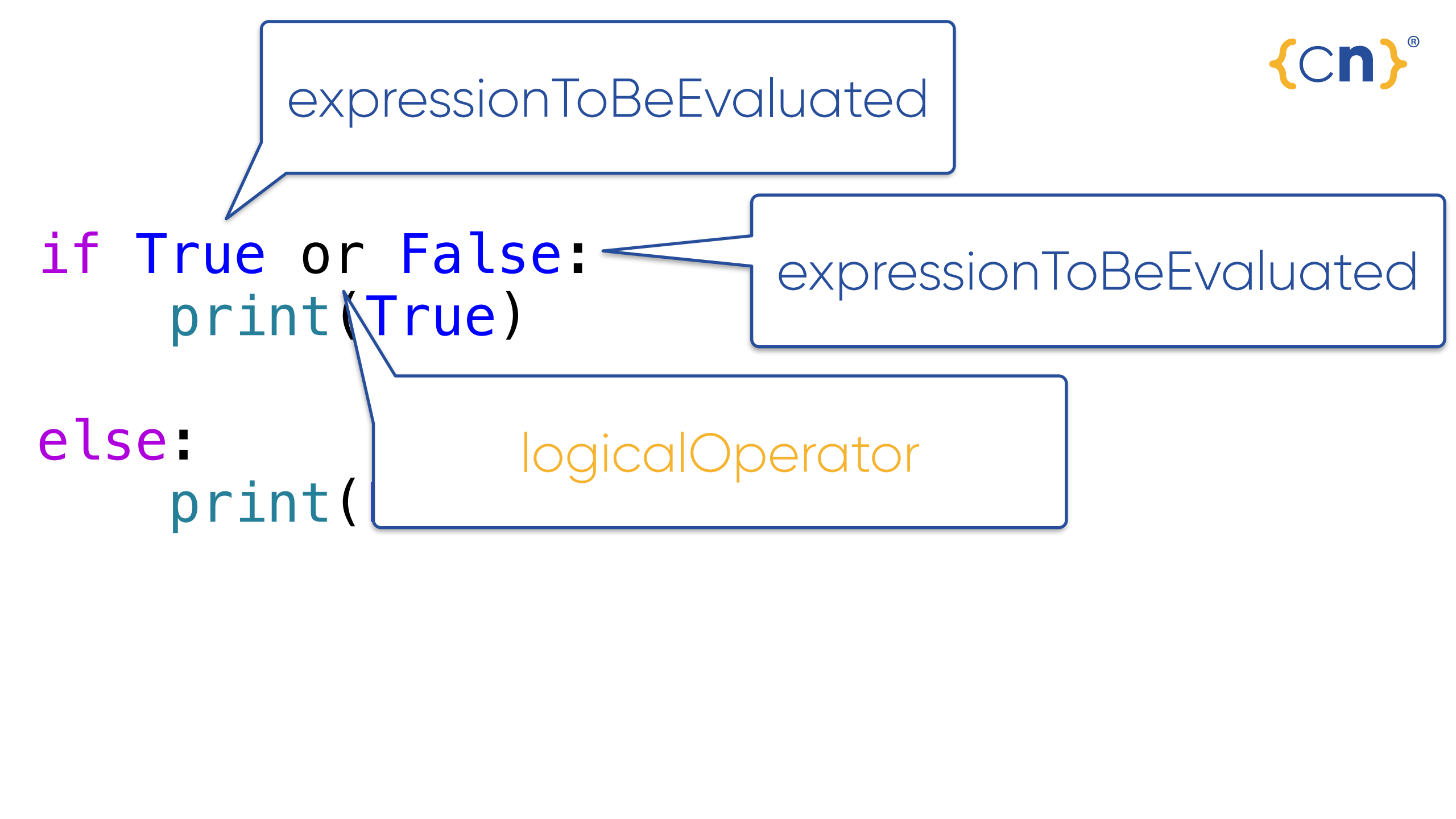
I could even write

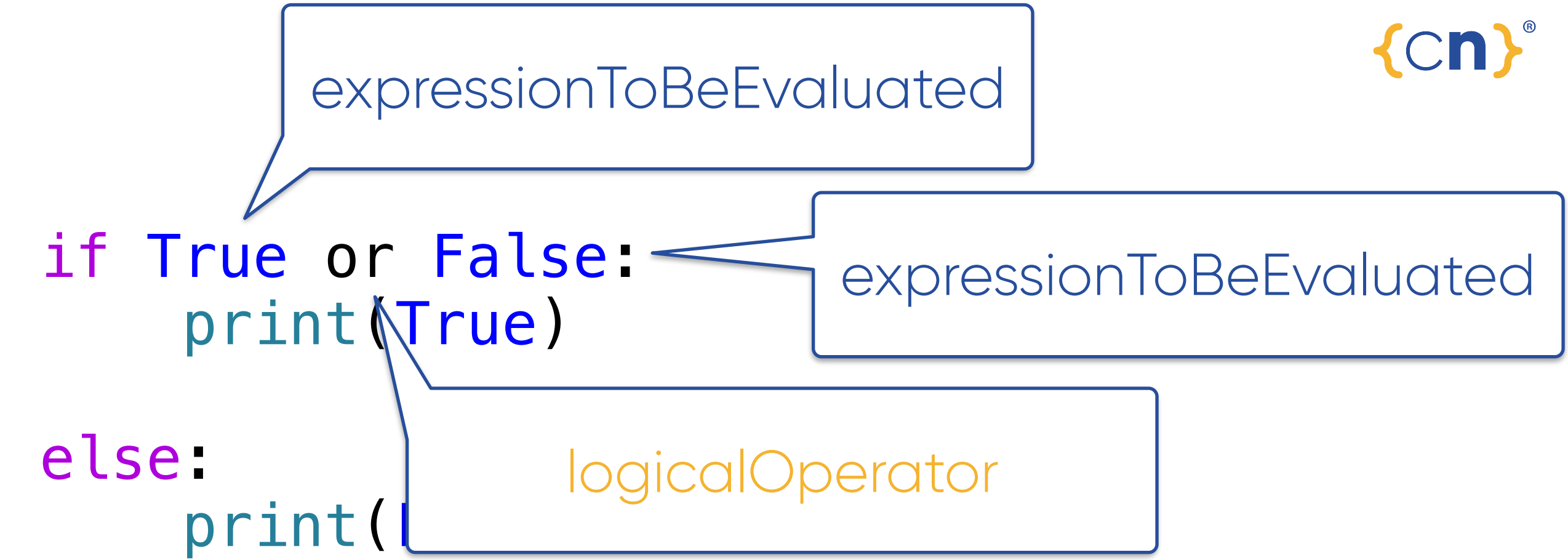
```
if True or False:
    print(True)

else:
    print(False)
```

In the condition we have

```
expressionToBeEvaluated

  logicalOperator and/or

expressionToBeEvaluated
```

```
if True or False:
    print(True)

else:
    print(False)
```


expressionToBeEvaluated
if True or False:
print(True)
expressionToBeEvaluated
else:
print(
logicalOperator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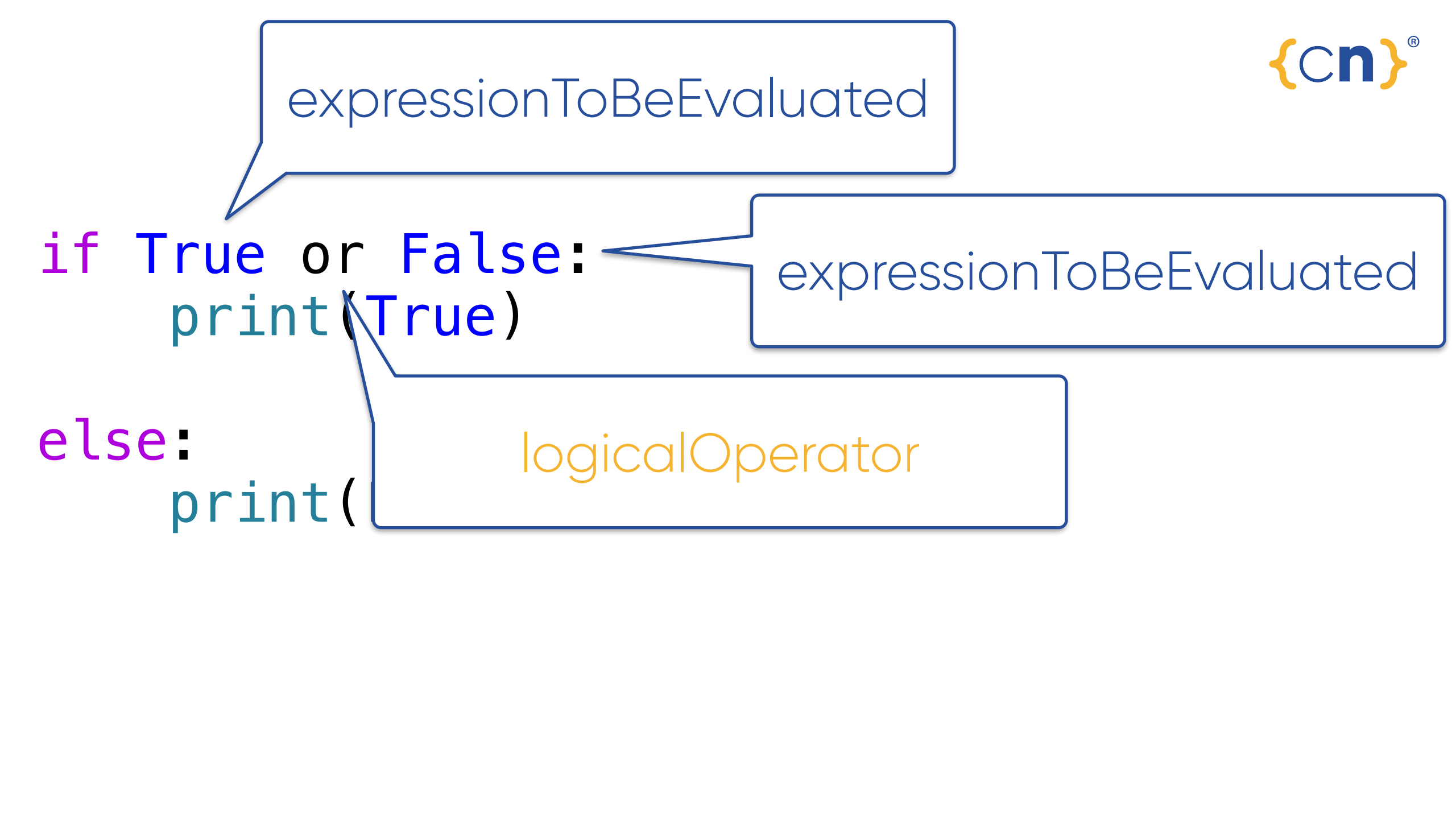
expressionToBeEvaluated
if True or False:
print(True)
expressionToBeEvaluated
else:
print(
logicalOperator

It's only logical

and

True and True —>

True and False —>

False and False —>

and

True and True —> True

True and False —> False

False and False —> False

or

True or True —>

True or False —>

False or False —>

or

True or True —> True

True or False —> True

False or False —> False

Learning Objectives

- To understand if/else and switch syntax
- To understand and use comparison operators
- To write programs with single condition
- To write programs with multiple conditions

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Challenge 1:

Create a variable called password.
Check how many letters are in the password, if there are less than 8 print that the password is too short.
Otherwise print the password.

Challenge 2:

Create a variable called num.
Check if the variable is divisible by 3 or 5. If it is print "This number is divisible by 3 or 5". Otherwise print "This number is not divisible by 3 or 5".

Challenge 3:

Create a variable called num.
If num is divisible by 3 print “fizz”, if it’s divisible by 5 print “buzz”, if it’s divisible by both 3 and 5 print “fizz buzz”. Otherwise print num.

Challenge 4:

Create a variable called num.
Check if the number is a palindrome (looks the same forward as it does backwards e.g. 1001 or 20202).

Challenge 5:

Create a variable called time, a variable called place_of_work and a variable called town_of_home. Create an if statement that prints where someone is at times of the day. E.g. if the time is 7 I'm at home, at 8 I'm commuting, at 9 I'm at work.

Challenge 6:

Create two variables called num1 and num2.
Create an if statement that checks if the result of the sum is even. If it is return a success message.

Extra Challenges

Challenge 7:

Take the string
“jrfndklhgfndjkjlkgperfijfhdknsadcvjhiiohjfkledsopiuh
gtyujwsdxcvhgfdjhiopiwquhejkdsoiufghedjwshi”.
Find the index of a last vowel in the string.

Challenge 8:

Create a variable called word that takes a string. Create an if statement that checks if the last letter is the same as the first. If it is return true, otherwise return false.