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CIS 118

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a. What is a logical short circuit ? for the AND and OR

Logical short circuiting is a way of speeding up processing. Say you have if ( func1() && func2() && func3(). If func1() returns FALSE, then you never have to evaluate func2 or func3. Same with OR - if just 1 is true, it stops evaluating criteria

b. How should you organize the expressions in a certain order to take advantage of the short circuit of a complex condition ?

In Or loops, put fast things as the first condition - if they are true the loop will short circuit and save you time

c. What does the ( a = a ) used as a condition do ? Code it up and try it. Declare and assign a: int a = 42;

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If I had done a=a+1, it would return 43.

d. Give an example of a multiple AND condition you use in your ever day life.

If (I have my lunch AND i have brushed my teeth AND I have eaten food AND I have my wallet), I can leave the house

e. Give an example of a multiple OR condition you use in your ever day life.

If (I have homework OR I have a project OR I want to talk to friends), turn on the computer

f. What is the purpose of a Truth Table ?

A truth table lets you evaluate what boolean logic will end up being by writing down all the possible combinations of variables.

g. Which of the 3 code examples in this lecture compile correctly or do they have syntax errors ?

The first one runs fine

Second runs fine

Third runs fine

h. What is the difference between a simple and complex condition ?

A simple condition is like an if statment with only one thing it checks, like if(i have money). A complex condition checks multiple things, like if ( i have money AND I am hungry)

i. What is the best type of criteria ?

VERY Specific ones - otherwise you don’t get out what you wanted to.

j. What happens if you use the condition (TRUE) in an if statement, is it good to do so ?

The loop goes on forever until you tell it to stop. Good if intended.