

Python vs. C

Python	C
<pre>if z1 > z2: print("Result:") print(f"z1 = {z1}")</pre>	<pre>if (z1 > z2) { printf("Result: "); printf("z1 = %d\n", z1); }</pre>
<pre>if z1 > z2: max = z1 else: max = z2</pre>	<pre>if (z1 > z2) { max = z1; } else { max = z2; }</pre>
<pre>if z1 > z2: if z1 > z3: max = z1 else: max = z3 else: if z2 > z3: max = z2 else: max = z3</pre>	<pre>if (z1 > z2) { if (z1 > z3) max = z1; // *** else max = z3; } else { if (z2 > z3) max = z2; else max = z3; }</pre>
<pre>if z1 >= z2 and z1 >= z3: max = z1 elif z2 >= z1 and z2 >= z3: max = z2 else: max = z3</pre>	<pre>if (z1 >= z2 && z1 >= z3) { max = z1; } else if (z2 >= z1 && z2 >= z3) { max = z2; } else { max = z3; }</pre>

*** Hinweis/Note:

In C sind geschweifte Klammern nach if, else, for und while nur bei mehrzeiligen Blöcken (mehr als eine Anweisung) nötig. Die inneren if-else-Anweisungen in diesem Beispiel kommen daher ohne sie aus.

In C, curly braces after if, else, for, and while are only required for blocks with multiple statements. The inner if-else statements in this example can therefore omit them.

Python	C
<pre>i = 1 while i <= 5: print(f"i = {i}") i = i + 1</pre>	<pre>int i = 1; while (i <= 5) { printf("i = %d\n", i); i = i + 1; }</pre>
<pre>for i in range(1, 6): print(f"i = {i}")</pre>	<pre>for (i = 1; i < 6; i++) { printf("i = %d\n", i); }</pre>
<pre>values = [10, 20, 15, 25, 30] print(values[0]) # 10 print(values[2]) # 15 print(values[4]) # 30</pre>	<pre>int values[] = {10, 20, 15, 25, 30}; printf("%d\n", values[0]); // 10 printf("%d\n", values[2]); // 15 printf("%d\n", values[4]); // 30</pre>
<pre>from math import sqrt def square(x): result = x * x return result x1 = square(123.456) x2 = sqrt(x1) print(f"x2 = {x2:.3f}")</pre>	<pre>#include <math.h> // sqrt #include <stdio.h> // printf double square(double x) { double result = x * x; return result; } int main(void) { double x1 = square(123.456); double x2 = sqrt(x1); printf("x2 = %.3f\n", x2); }</pre>
<pre>def text_loop(text): count = len(text) for i in range(count): print(text[i]) text_loop("Python vs. C")</pre>	<pre>#include <string.h> // strlen #include <stdio.h> // printf void text_loop(const char text[]) { int count = (int)strlen(text); for (int i = 0; i < count; i++) printf("%c\n", text[i]); } int main(void) { text_loop("C vs. Python"); }</pre>