

PASCAL - NESTED IF-THEN STATEMENTS

http://www.tutorialspoint.com/pascal/pascal_nested_if_statement.htm

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It is always legal in Pascal programming to nest **if-else** statements, which means you can use one **if** or **else if** statement inside another **if** or **else if** statements. Pascal allows nesting to any level, however, it depends on Pascal implementation on a particular system.

Syntax

The syntax for a nested if statement is as follows –

```
if( boolean_expression 1) then
    if(boolean_expression 2)then S1

else
    S2;
```

You can nest else if-then-else in the similar way as you have nested if-then statement. Please note that, the nested **if-then-else** constructs gives rise to some ambiguity as to which else statement pairs with which if statement. *The rule is that the else keyword matches the first if keyword searching backwards not already matched by an else keyword.*

The above syntax is equivalent to

```
if( boolean_expression 1) then
begin
    if(boolean_expression 2)then
        S1

    else
        S2;
end;
```

It is not equivalent to

```
if ( boolean_expression 1) then
begin
    if exp2 then
        S1
end;
else
    S2;
```

Therefore, if the situation demands the later construct, then you must put **begin** and **end** keywords at the right place.

Example

```
program nested_ifelseChecking;
var
    { local variable definition }
    a, b : integer;

begin
    a := 100;
    b:= 200;

    (* check the boolean condition *)
    if (a = 100) then
        (* if condition is true then check the following *)
        if ( b = 200 ) then
            (* if nested if condition is true then print the following *)
            writeln('Value of a is 100 and value of b is 200' );
```

```
writeln('Exact value of a is: ', a );  
writeln('Exact value of b is: ', b );  
end.
```

When the above code is compiled and executed, it produces the following result –

```
Value of a is 100 and b is 200  
Exact value of a is : 100  
Exact value of b is : 200
```

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