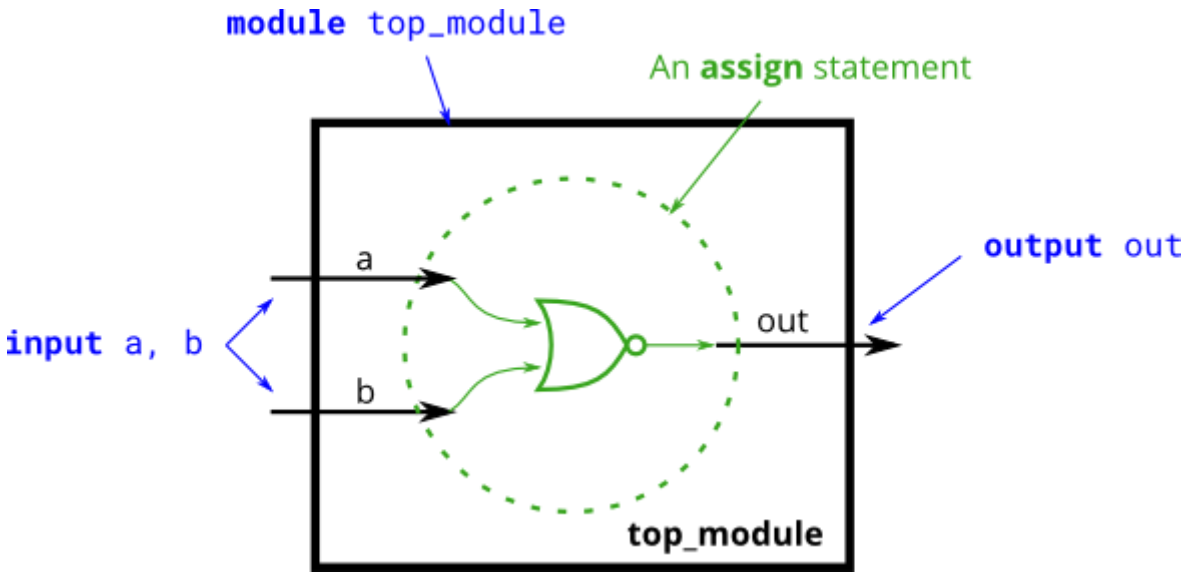
Norgate

andgate (/wiki/andgate)

xnorgate (/wiki/xnorgate)

Create a module that implements a NOR gate. A NOR gate is an OR gate with its output inverted. A NOR function needs two operators when written in Verilog.

An `assign` statement drives a wire (or "net", as it's more formally called) with a value. This value can be as complex a function as you want, as long as it's a *combinational* (i.e., memory-less, with no hidden state) function. An `assign` statement is a *continuous assignment* because the output is "recomputed" whenever any of its inputs change, forever, much like a simple logic gate.



(/wiki/File:Norgate.png)

Expected solution length: *Around 1 line.*

Module Declaration

```
module top_module(
    input a,
    input b,
    output out );
```

Hint...

Verilog has separate bitwise-OR (`|`) and logical-OR (`||`) operators, like C. Since we're working with a one-bit here, it doesn't matter which we choose.

Write your solution here

```
1 module top_module(
```

```
    input a,
    input b,
    output out );

endmodule

```

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