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## 4-bit counter

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Design a circuit that implements a 4-bit counter (mod 16). The counter must start at zero after reset and increase the value at each cycle.

### Specification

```
module counter4(count, clk, rst );
    input clk, rst ;
    output [3:0] count;
```

### Input

- *clk* is the clock signal.
- *rst* is the synchronous reset signal.

### Output

- *count* is the 4-bit output of the counter.

### Problem information

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