```
`timescale 1ns / 1ps
/**********************************************************************
*
* Module: seven_segment
*
* Author: Noah Hanks
* Class: ECEN 220, Section 3, Fall 2020 - ECEN 220, Section 1, Winter 2020
* Date: 14 Oct 2020
*
* Description: Uses two nor games to determine the outputs of q and qbar.
The gates are crossed and wired together
*
*
**********************************************************************/
`default_nettype none

module latch(input wire logic r,
             input wire logic s,
             output wire logic q,     // This output must have the 'wire' specifier
             output wire logic qbar   // This output must have the 'wire' specifier
          );

         // nor(q, r, qbar);
         // nor(qbar, s, q);
         assign #3ns q = ~(r | qbar);
         assign #3ns qbar = (s | q);

endmodule
```