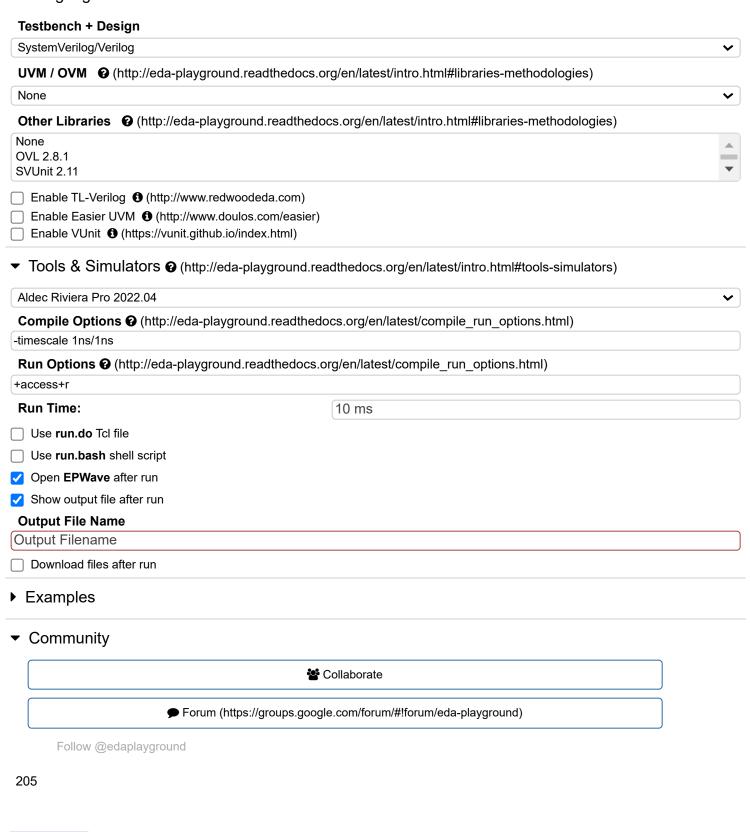
Brought to you by ADOULOS (http://www.doulos.com)

## ▼ Languages & Libraries



module tb\_sr\_ff(); https://www.edaplayground.com/x/gAVL

 $\oplus$ 

testbench.sv

```
4
 5
      reg s, r, clk;
 6
      wire q, qb;
7
8
9
      sr_ff uut (
10
        .q(q),
         .qb(qb),
11
12
         .s(s),
13
        .r(r),
         .clk(clk)
14
15
16
17
18
      reg clk_period = 10;
      always #((clk_period/2)) clk = ~clk;
19
20
21
      initial begin
22
23
        s = 0;
24
        r = 0;
25
        c1k = 0;
26
27
28
        #5 s = 1; // Set S to 1
#5 r = 1; // Set R to 1
#5 s = 0; // Set S to 0
#5 r = 0; // Set R to 0
29
30
31
32
33
34
35
        $finish;
36
      end
37
38
      always @(posedge clk) begin
39
        display(Time=\%0 t s=\%b r=\%b q=\%b qb=\%b, time, s, r, q, qb;
40
41
      initial begin
42
        $dumpfile("dump.vcd");
43
44
         $dumpvars;
45
      end
      initial begin
46
        #100;
47
        $finish;
48
49
      end
50
   endmodule
51
52
```

```
design.sv
        \oplus
                                                                                           SV/Verilog Design
  1 // Code your design here
   module sr_ff(q,qb,s,r,clk);
  3
      output q,qb;
  4
      input s,r;
  5
      input clk;
  6
      wire w1,w2;
      nand g1(w1,s,clk);
 7
 8
      nand g2(w2,r,clk);
      nand g3(q,w1,qb);
 9
 10
      nand g4(qb,w2,q);
 11 endmodule
 12 module jk_ff(q,qb,j,k,clk);
      output q,qb;
 13
 14
      input j,k;
```

```
9/25/23, 10:23 PM
                                                         masterslave_ff - EDA Playground
         input clk;
    15
         wire w1,w2;
    16
         nand g1(w1,j,qb,clk);
    17
         nand g2(w2,k,q,c1k);
    18
         nand g3(q,w1,qb);
    19
    20
         nand g4(qb,w2,q);
       endmodule
    21
    22
   Log

♣ Share

                                                                           0 views and 0 likes
                         masterslave ff
    Public (anyone with the link can view)
                                                Save
                                          ~
                                                         0
                                                       (https://simplemde.com/markdown-
      В
                H |
                            ∷
                                <sup>1</sup>/<sub>2</sub> |
                                                       guide)
     A short description will be helpful for you to remember your playground's details
                                                                                                            0:0
                                                                                      lines: 1 words: 0
```