



SR_latch.v



SR_tb.v



Untitled 5



Name

Value

S

1

R

1

Q

0

Qbar

0

0.000 ns

10.000 ns

20.000 ns

30.000 ns

40.000 ns

/home/itzzinfinity/Cozy Drive/100daysofRTL/day_046/project_1/project_1.srscs/sources_1/new/SR_latch.v



```
1  `timescale 1ns / 1ps
2  ///////////////////////////////////////////////////////////////////
3  // Engineer: Anjan Prasad
4  // Create Date: 11/06/2024 06:17:44 AM
5  // Module Name: SR_latch
6  ///////////////////////////////////////////////////////////////////
7
8
9  module SR_latch(
10 input S,R,
11 output Q,Qbar
12 );
13
14     assign Q = ~ (R | Qbar);
15     assign Qbar = ~ (S | Q);
16
17
18 endmodule
```

/home/itzzinfinity/Cozy Drive/100daysofRTL/day_046/project_1/project_1.srscs/sim_1/new/SR_tb.v



```
1  `timescale 1ns / 1ps
2  //////////////////////////////////////
3  // Engineer: Anjan Prasad
4  // Create Date: 11/06/2024 06:21:28 AM
5  // Module Name: SR_tb
6  //////////////////////////////////////
7
8
9  module SR_tb;
10     reg S,R;
11     wire Q,Qbar;
12
13     SR_latch DUT(S,R,Q,Qbar);
14     initial begin
15         ○ S = 0 ; R = 0;
16         ○ #10 S = 0 ; R = 1;
17         ○ #10 S = 1 ; R = 0;
18         ○ #10 S = 1 ; R = 1;
19         ○ → #10 $finish;
20     end
21 endmodule
22
```