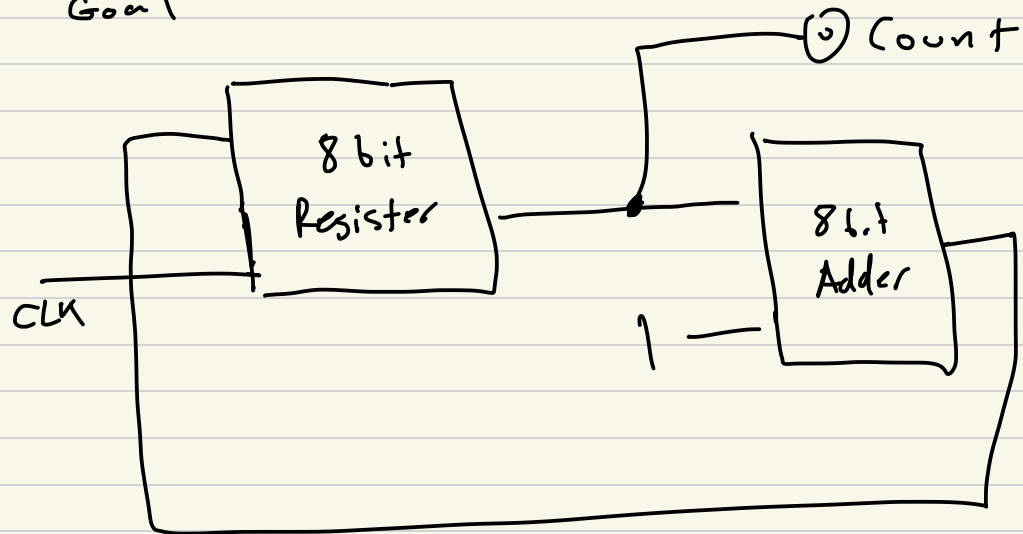
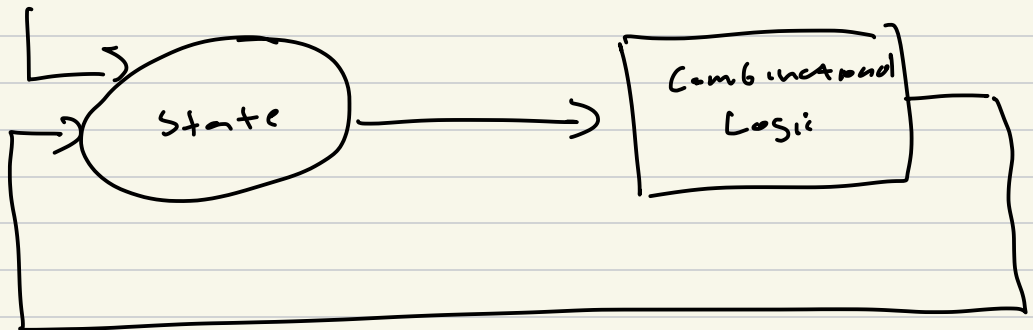


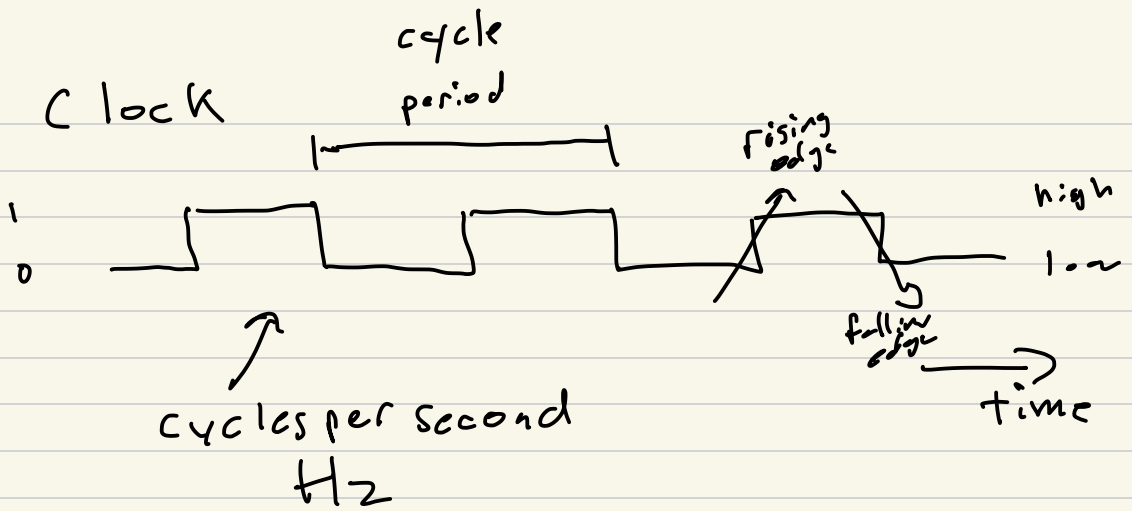
CS 315-01 Lab Sequential Logic

Goal 1



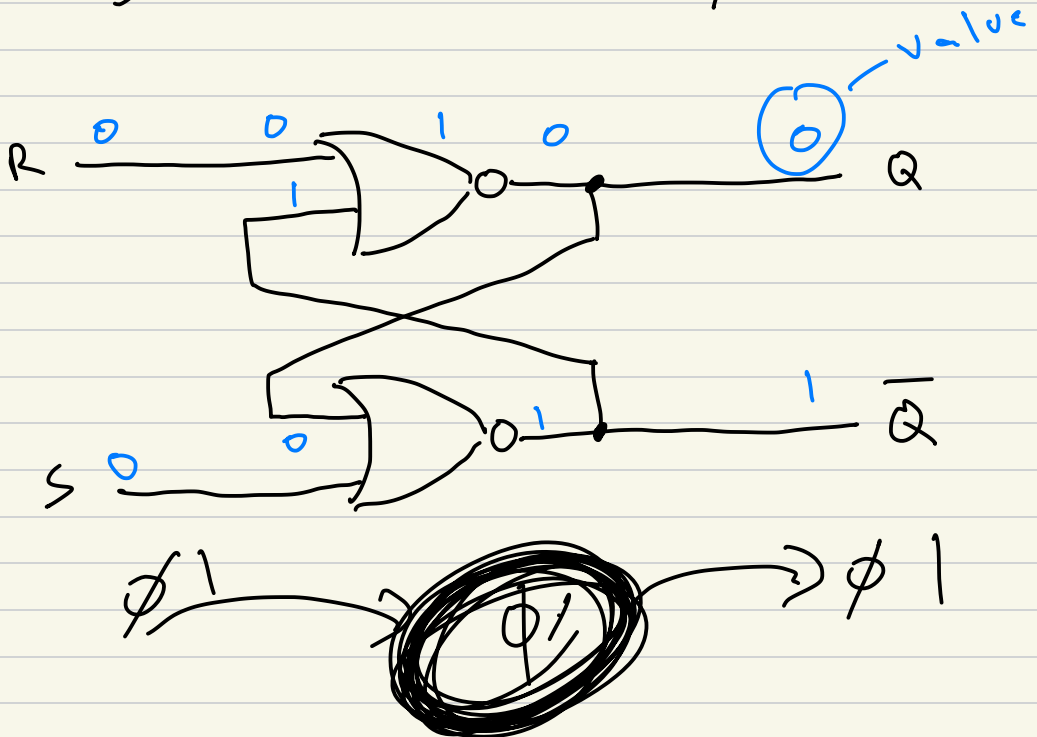
CLK

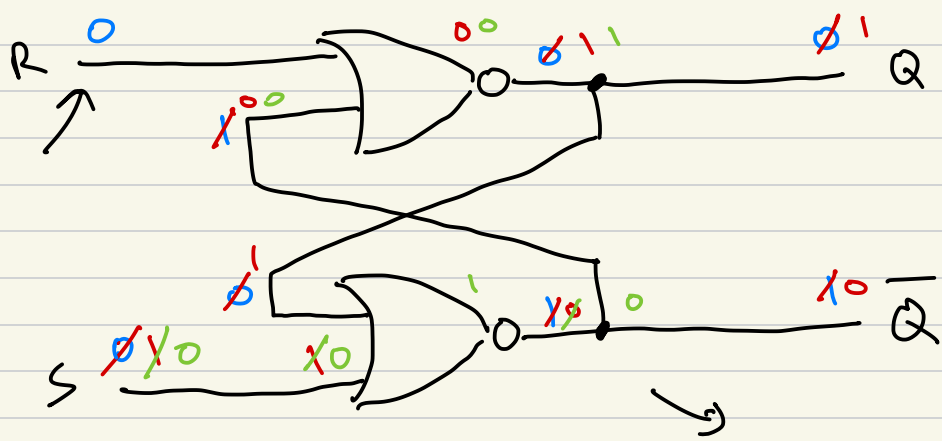
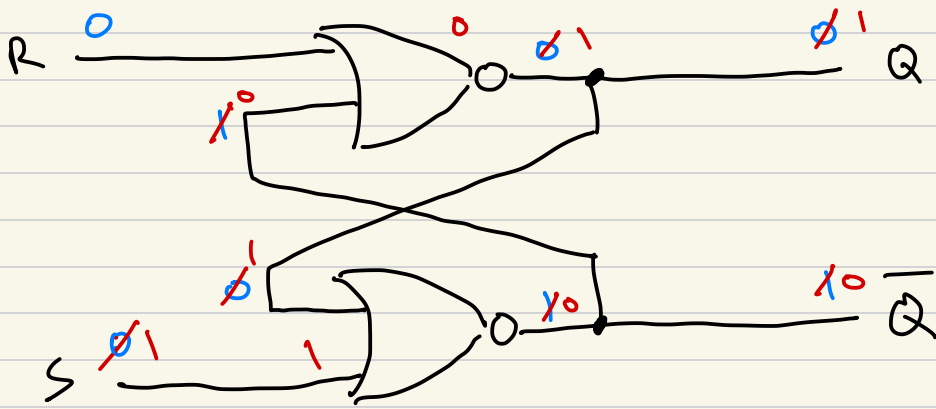




How to store a 1 bit value?

SR Latch Set/Reset





time ↓

R	S	Q	$\bar{Q}$
0	0	0	1
0	1	1	0
0	0	1	0
1	0	0	1
0	0	0	1
1	1	X	X

undefined

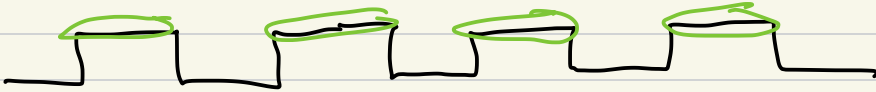
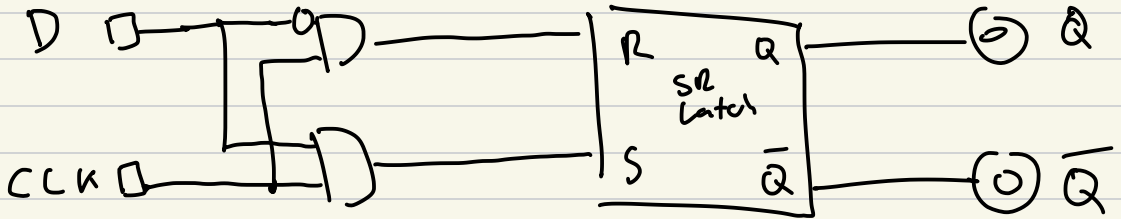
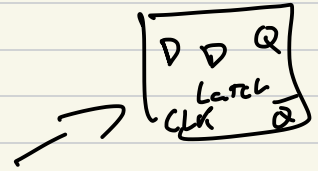
R Q

SR
Latch

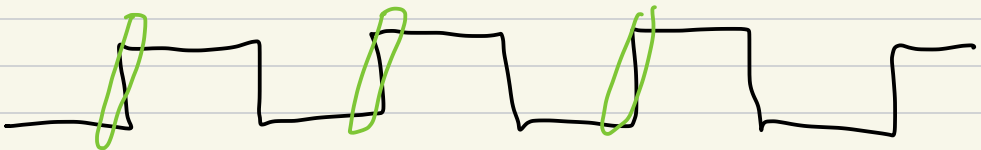
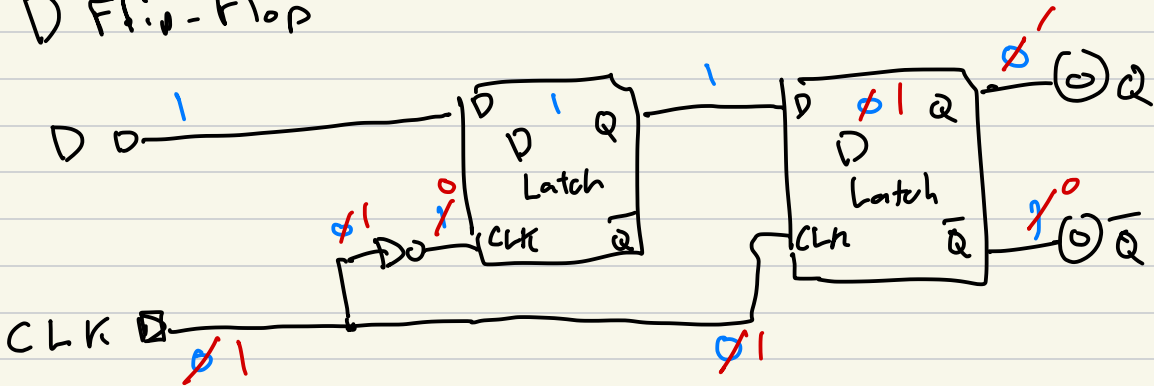
S $\bar{Q}$

SR Latch $\rightarrow$ D Flip-flop $\rightarrow$ 1 bit Register
 $\rightarrow$ N bit Register $\rightarrow$ Counter

D Latch

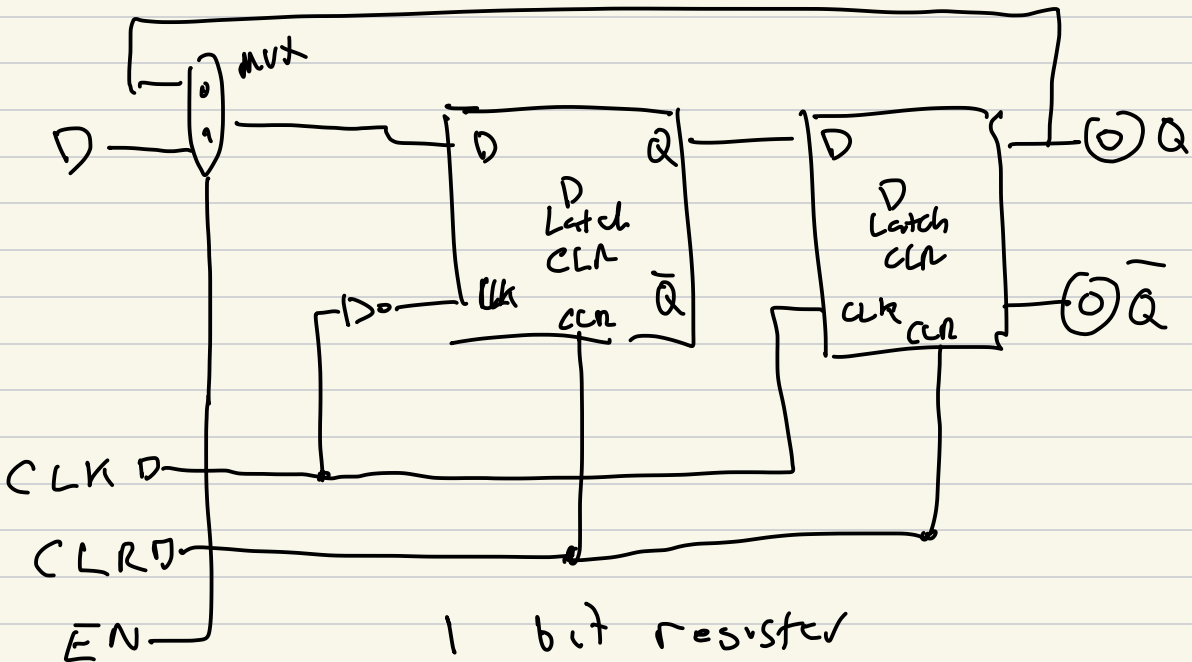
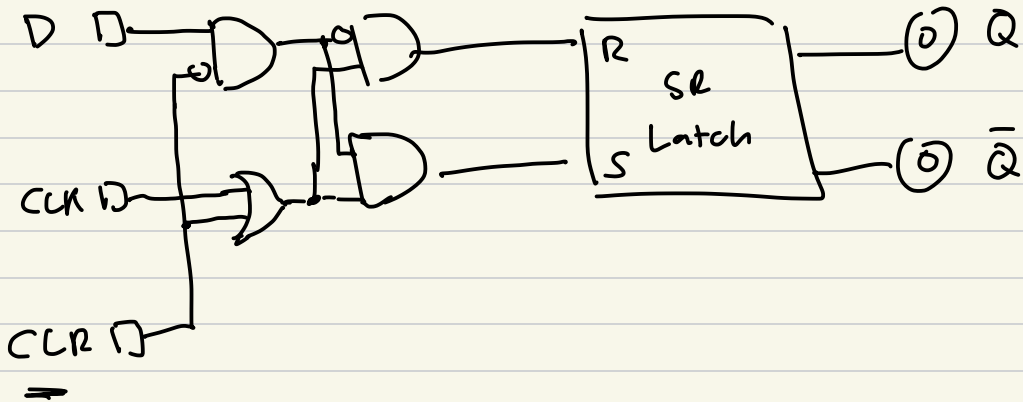


D Flip-Flop

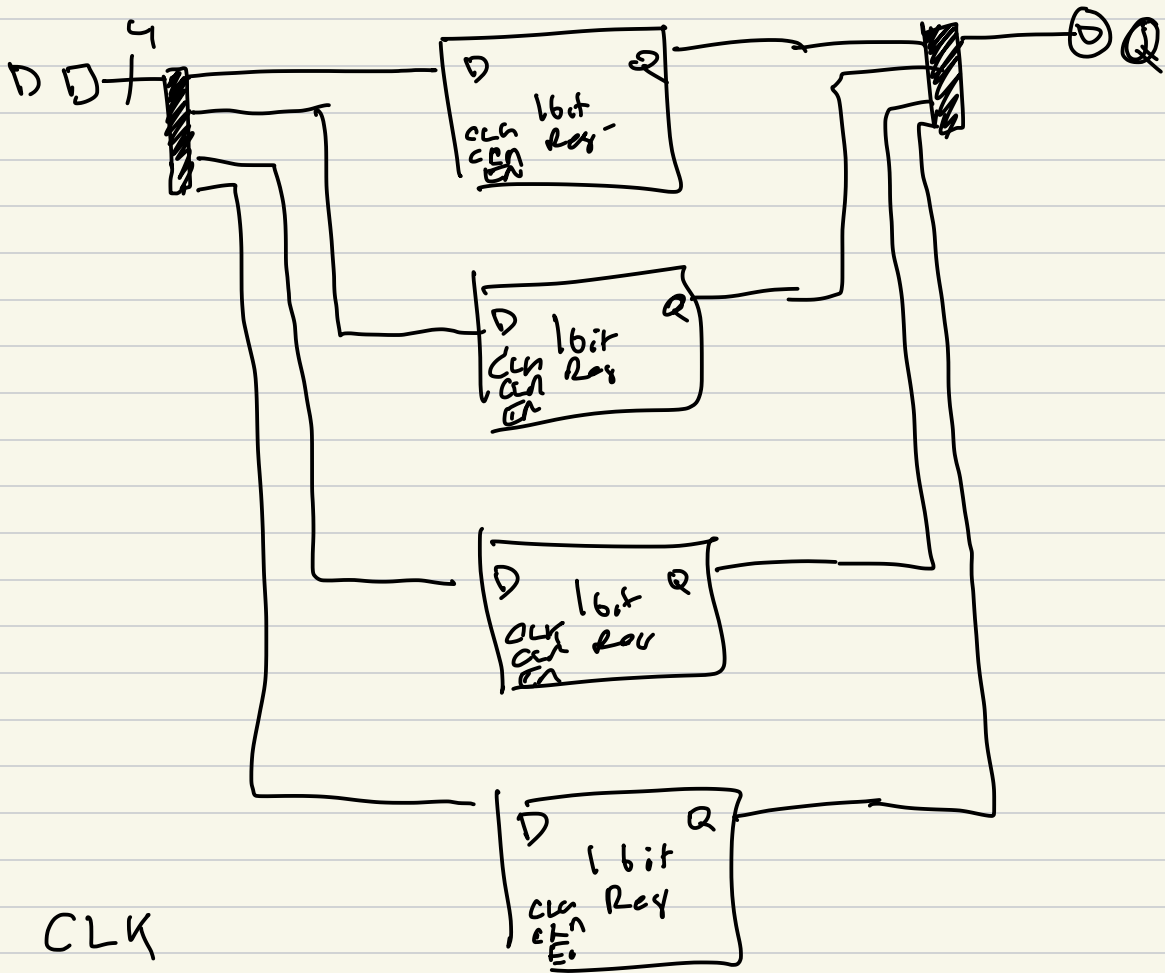


1 bit register

D Latch with CLR



4 bit register



CLK
CLK
EN