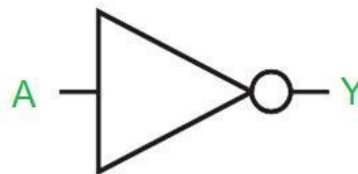
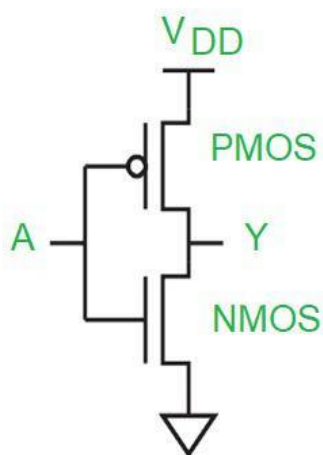




DAY-45

#100DAYSOFRTL

Aim:- Implementation of CMOS Inverter.



A	Y
0	1
1	0

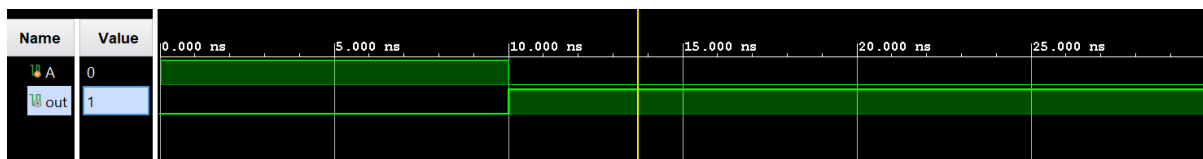
RTL CODE:-

```
//////DAY-45
//////DATE:-14/02/2024
//////Implementation of CMOS Inverter in Switch level modelling
module Cmos_Inverter(input A,
output out);
supply1 power;
supply0 gnd;
//////Pmos (Drain, Source, Gate)
pmos(out, power, A);
//////Nmos (Drain, Source, Gate)
nmos(out, gnd, A);
endmodule
```

TESTBENCH:-

```
module Cmos_tb();  
    reg A;  
    wire out;  
    Cmos_Inverter uut(A,out);  
    initial begin  
        ○ A=1'b1;  
        ○ $display("A=%b,out=%b",A,out);  
        ○ #10;  
        ○ A=1'b0;  
        ○ $display("A=%b,out=%b",A,out);  
        ○ #20;  
        ○ → $finish();  
    end  
endmodule
```

WAVEFORMS:-



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