

In the name of God

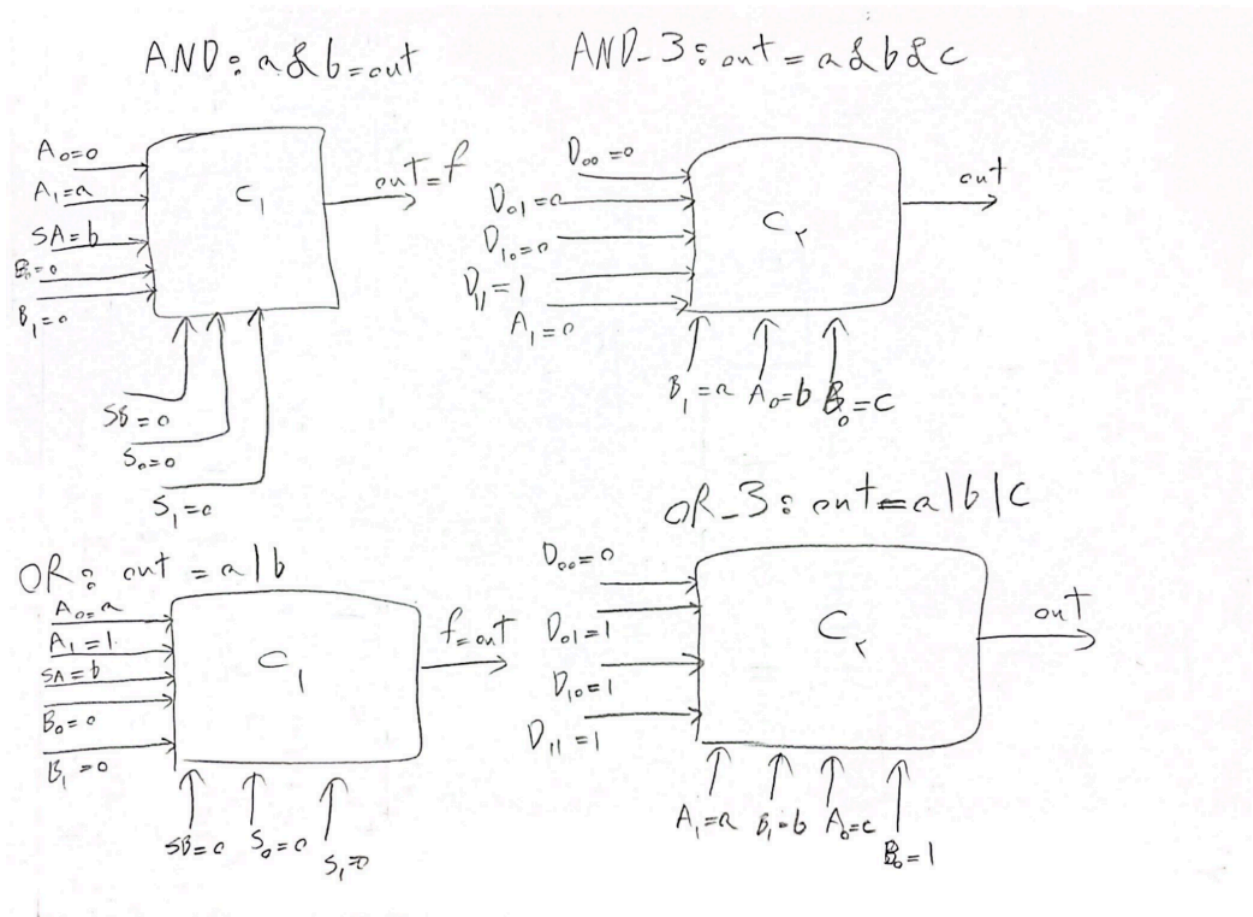
Title : project 3 of CAD course in UT

Group Members :

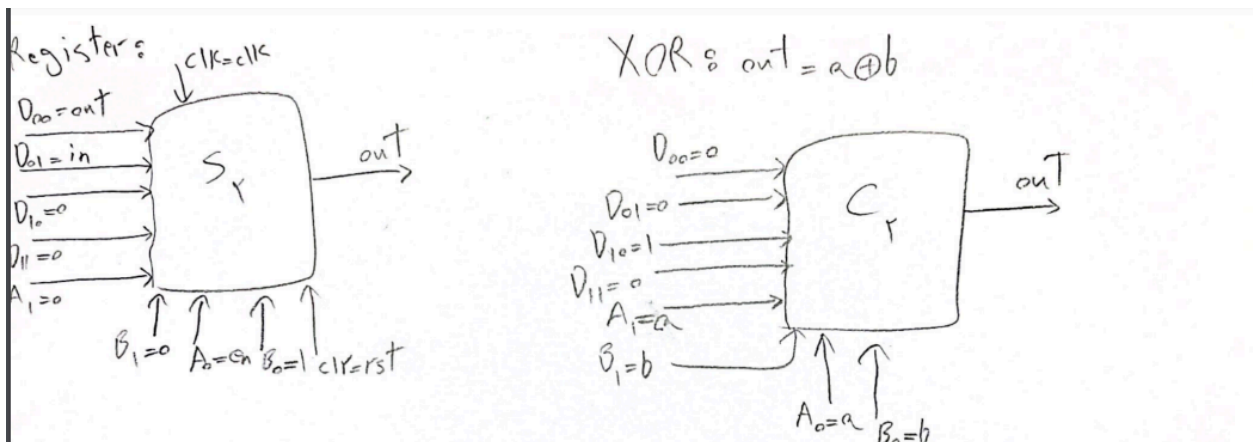
Mehrad Liviyan 810101501

Marzieh Mousavi 810101526

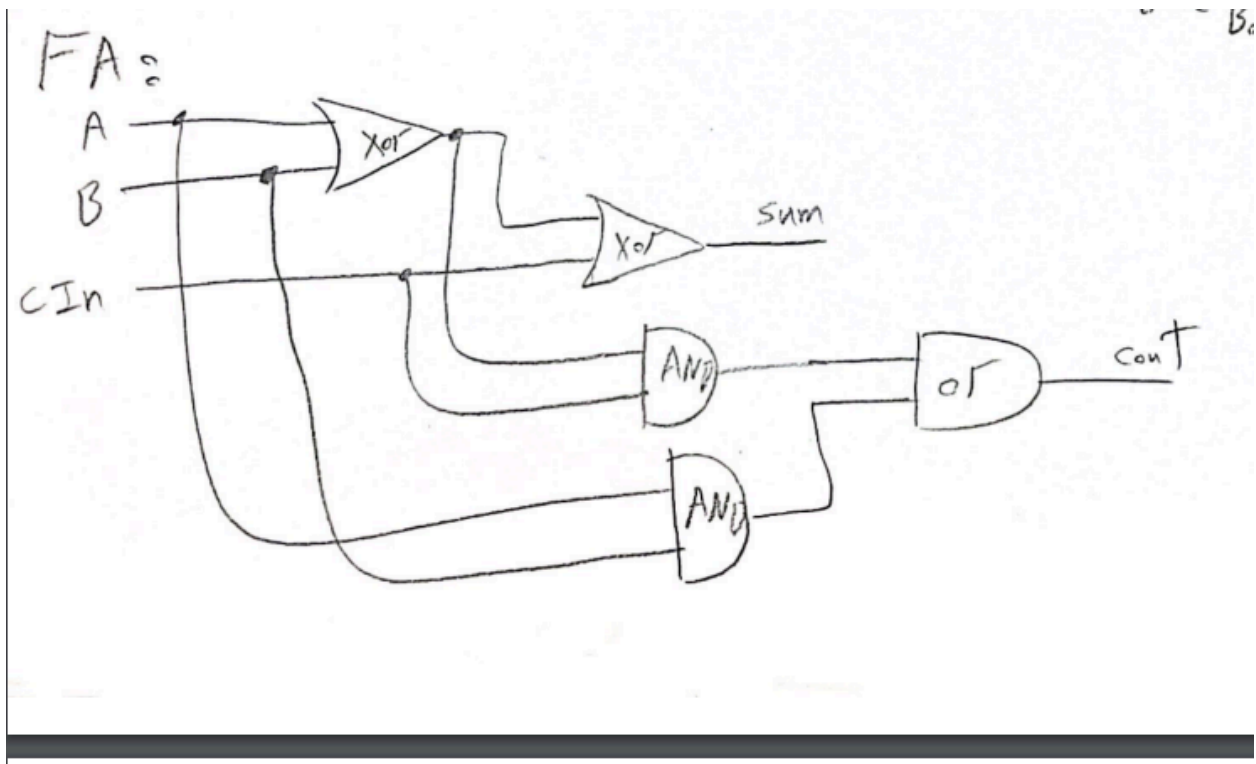
First off all we should implement base gates with our modules :



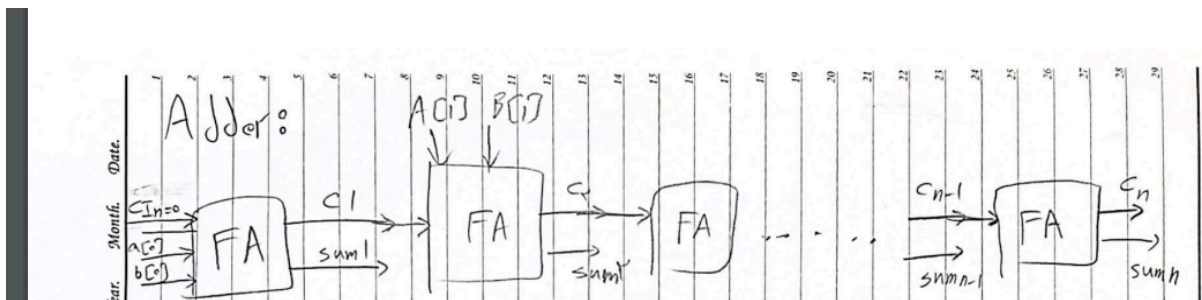
Also :



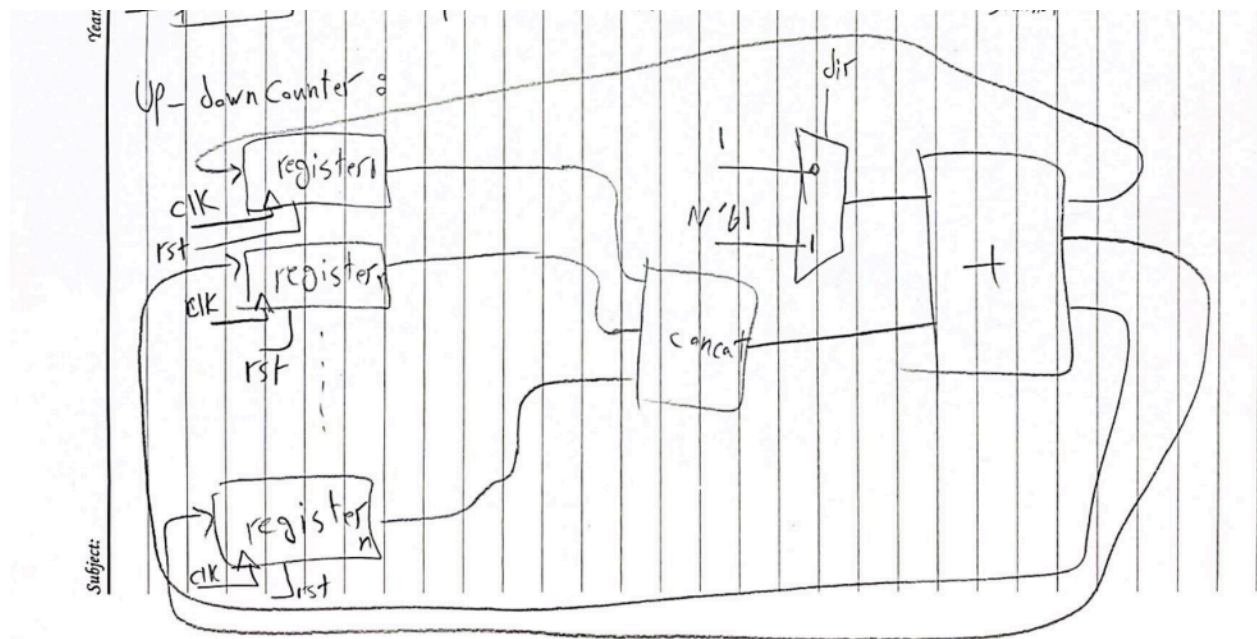
Then with this base gates we should make full adder to make an adder :



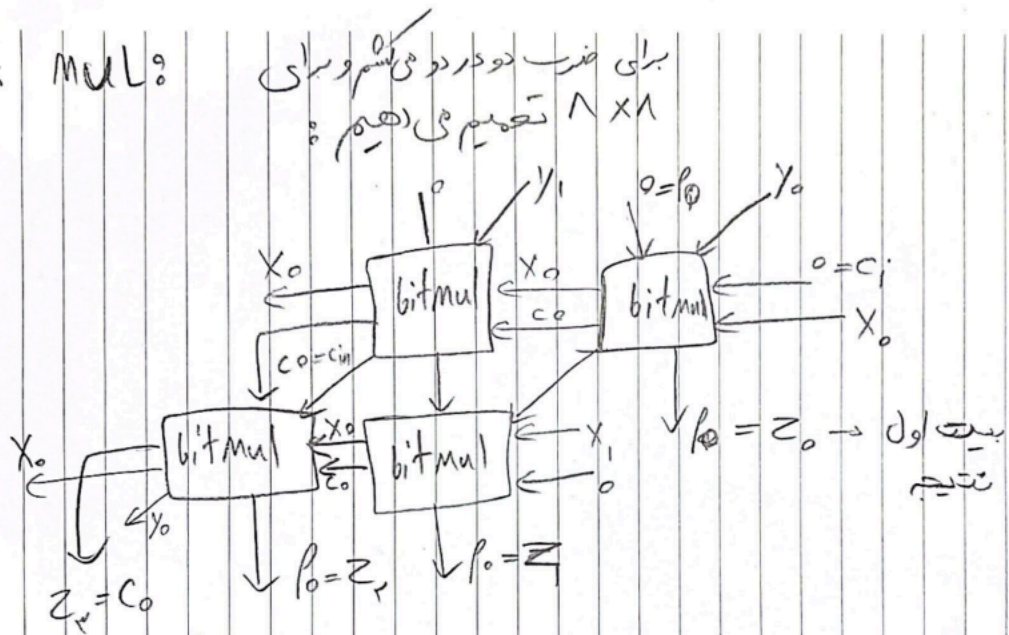
This is adder :



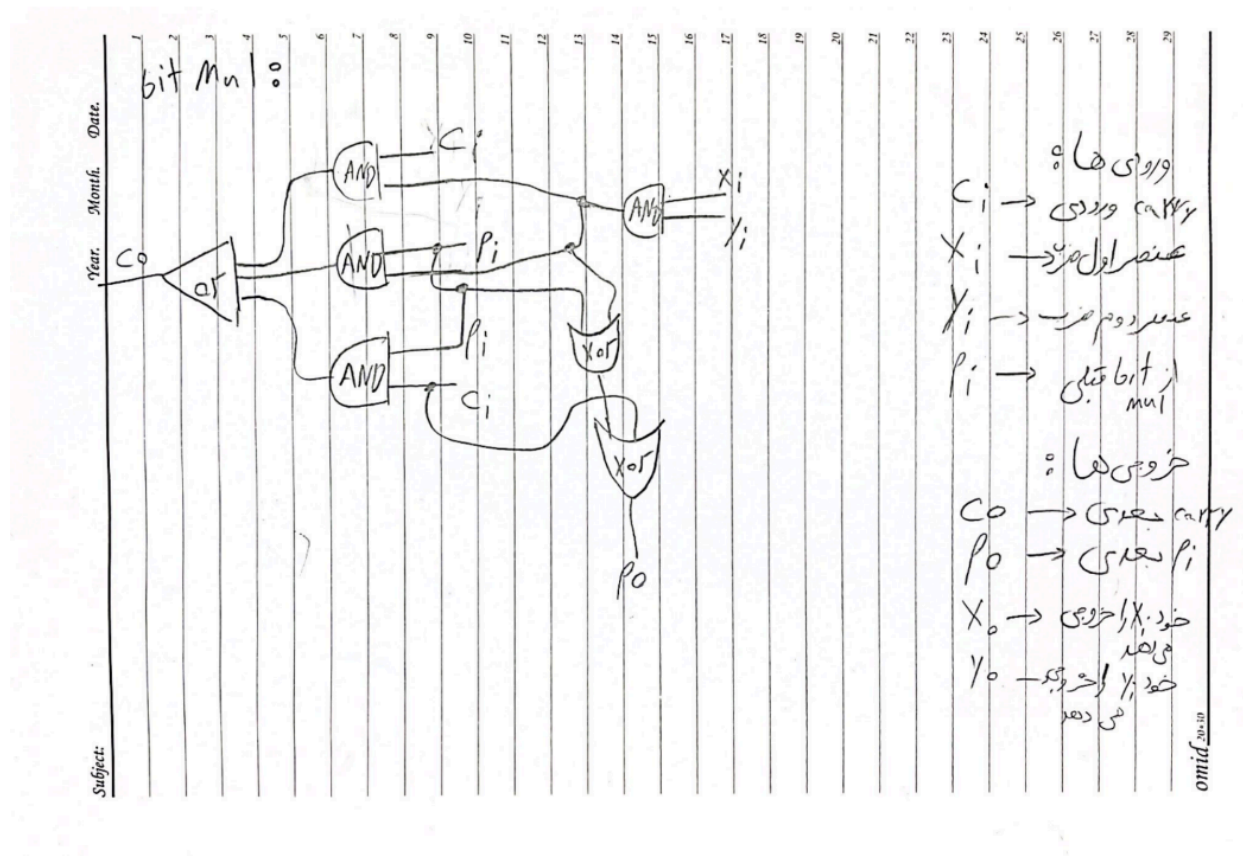
Then we can make counter with this adder :



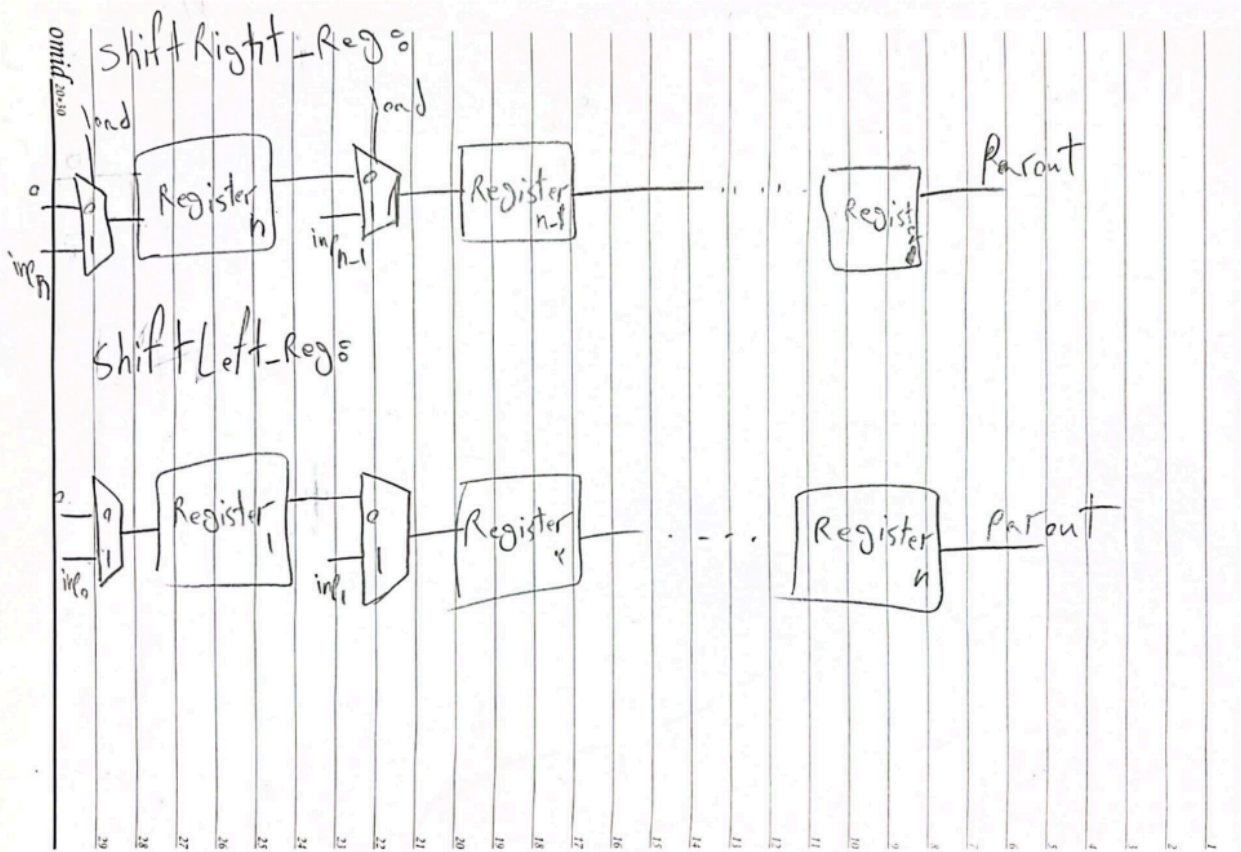
Also we should Implement an Mul :



We should Implement 1bit mul like this :



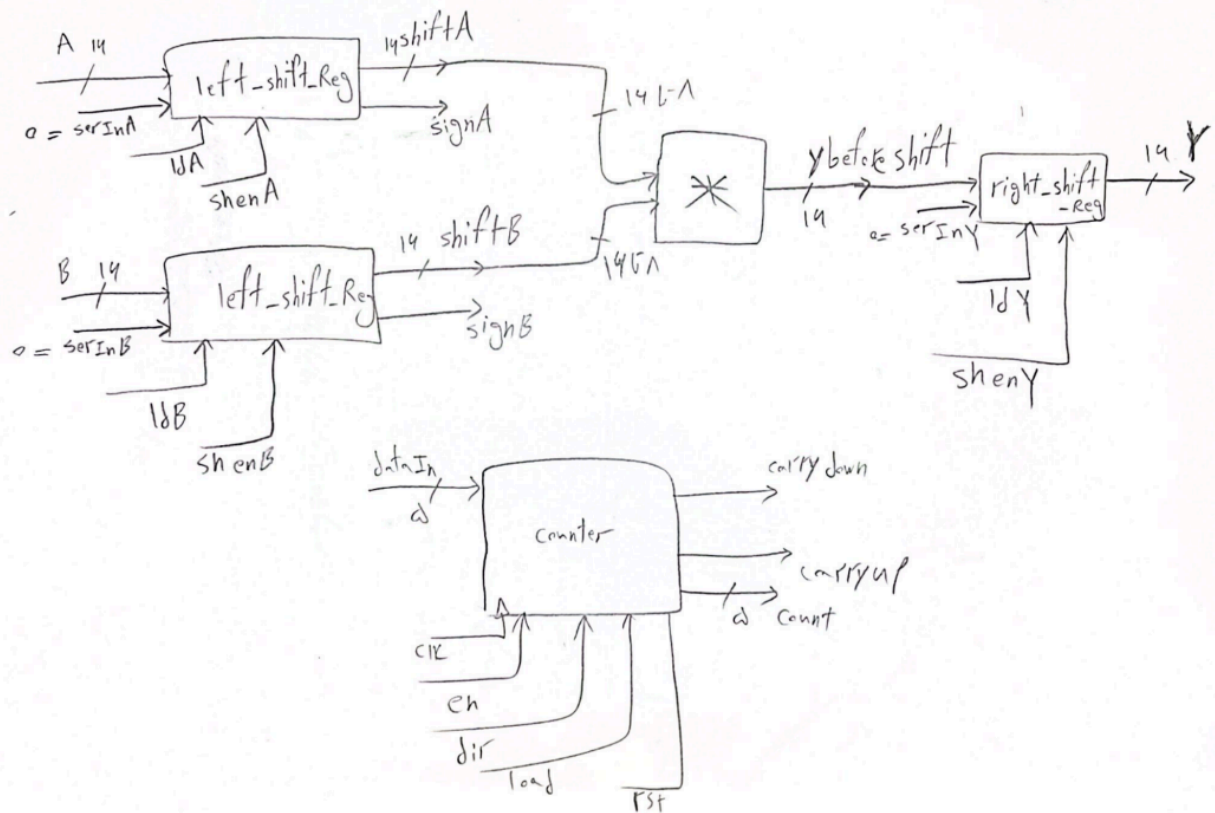
Also we should implement left shift and right shift registers :



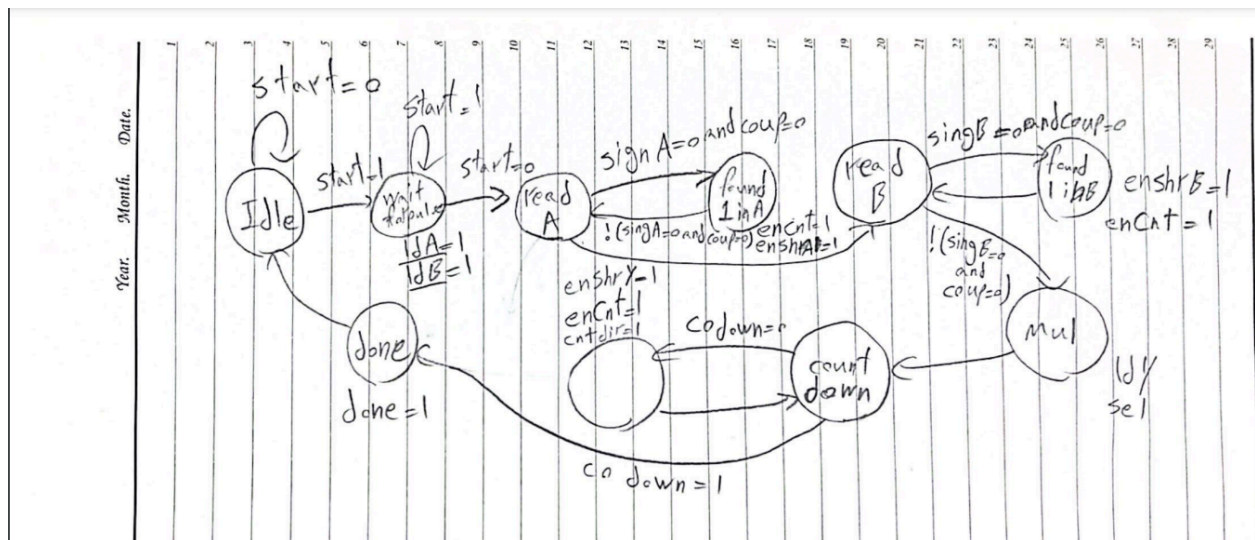
At end this is our datapath :



datapath:

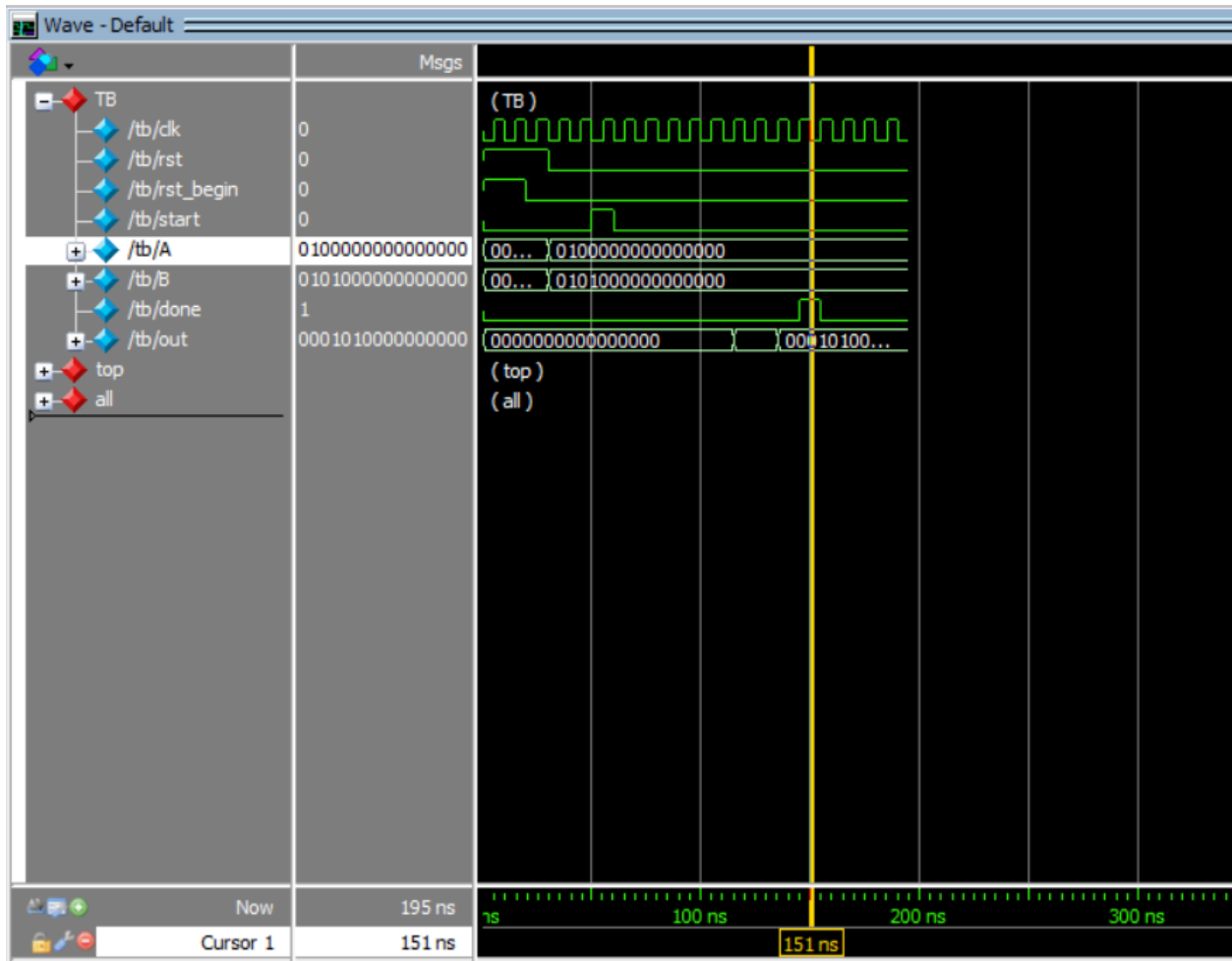


Controller :





Test bench output wave :



da.txt :



da.txt - Notepad

File

Edit

View

6904

Ln 1, Col 1