Design of Binary Counter

Design a 3 bits binary counter that count up from 000 to 111 and recycles according to the following specification:

E is the enable input, if E=0 the counter is disabled and remains in its current state even though clock pulses are applied to the flip-flops. And if E=1 the counter is enabled and count upward with the sequence 000, 001, 010, 011, 100, 101, 110, 111.

The second input S is the reset, if S=1 the counter is reset to the 000 state, is S=0 the counter depends on the value of E

The report must include the truth table, and schematic diagrams, and the type of ICs from which you used in your lab sessions (or other ICs).

Explain the advantages of your design from the “cost, power consumption, No of used ICs, No of used logic gates, etc.” point of view.

Submission date is 10th of June 2019

Good luck