

EXPERIMENT NO.3

Title of experiment: To study and design universal gates and special purpose gates using basic logic gates.

Equipments required: Proteus 8

Theory

Special gates:XOR,XNOR

Basic gates:AND,OR,NOT

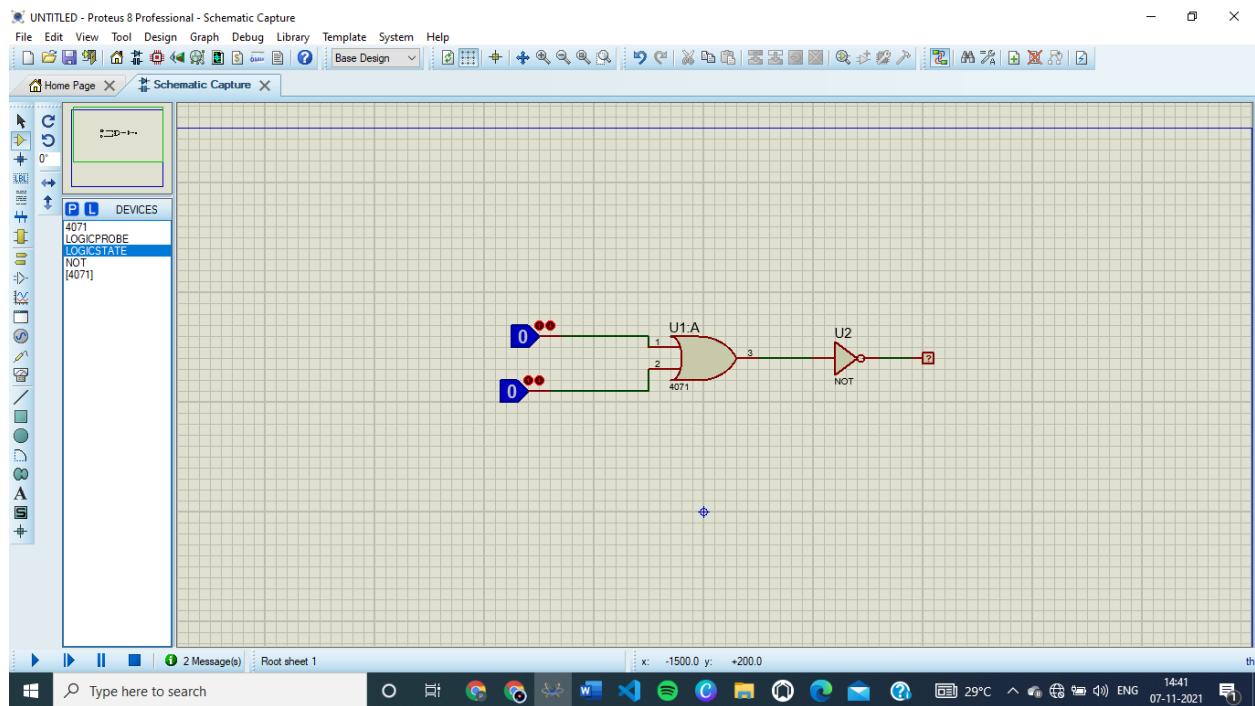
Universal gates:NAND,NOR

Implementation:

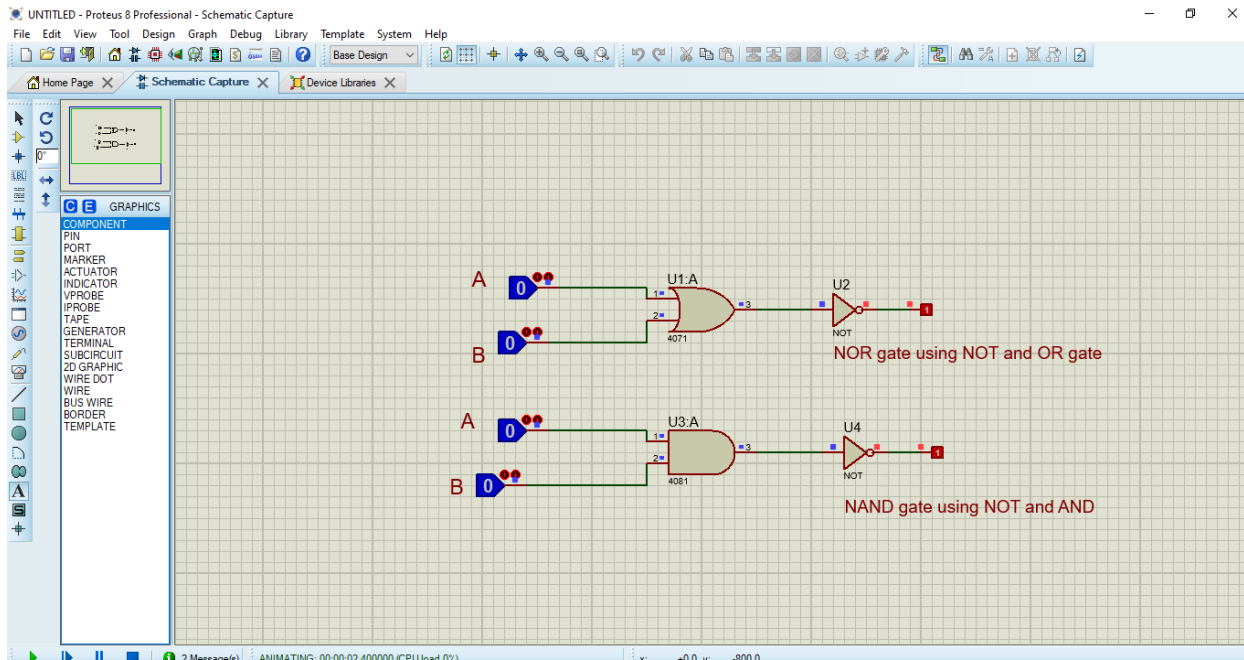
- 1)The AND gate(4081),OR gate(4071),NOR(74S02),XOR(4030), NOT gate,NAND(4011) are library devices used show the working of the data in Proteus 8 software
- 2)Logicstate,logicprobe devices are also used to fetch output of logic gates.

Snapshots

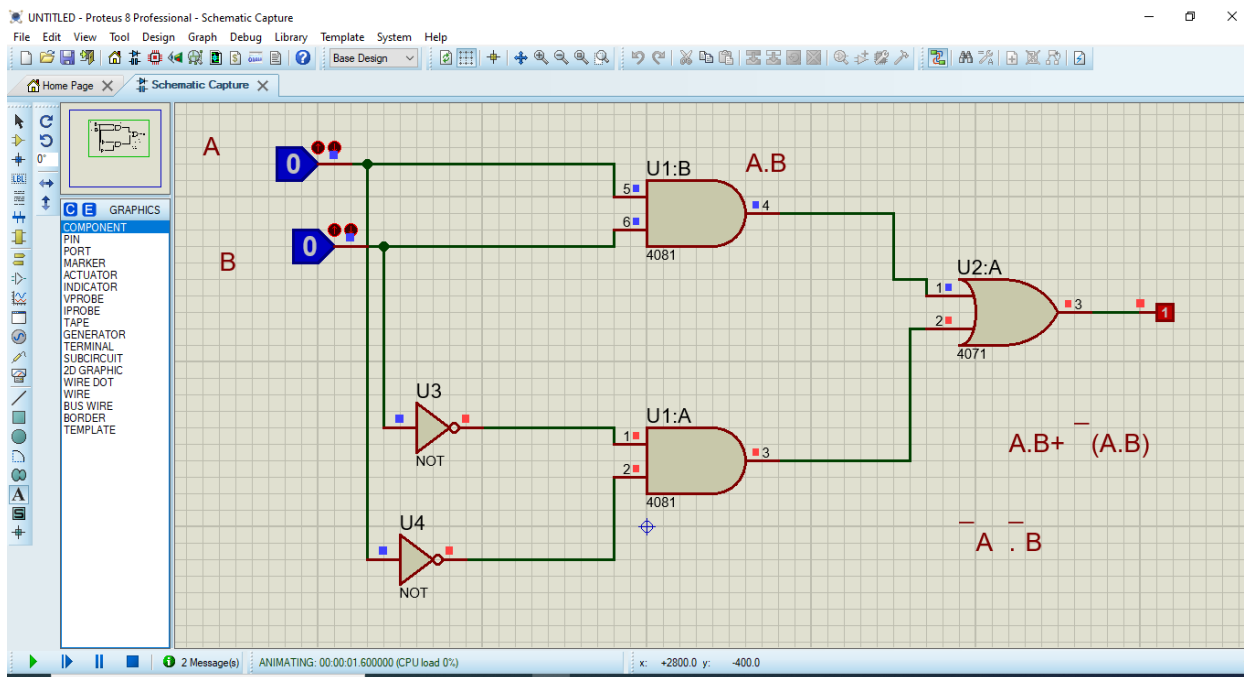
NOR



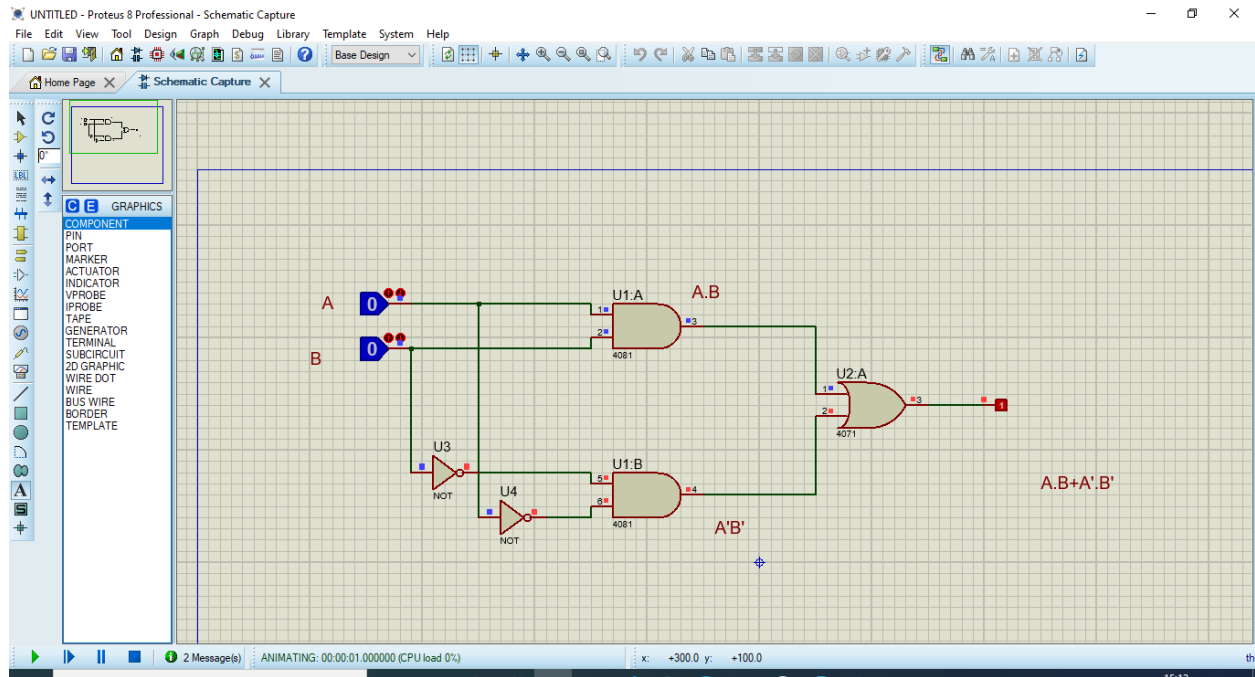
NOR gate using NOT and OR gate.



XOR



XNOR



Conclusion

These are various types of logic gates .