**HALF ADDER USING ONLY NAND GATE** 

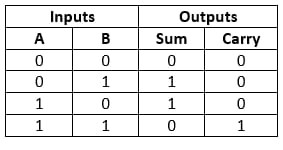
**AIM:**

To design and implement the half adder using only NAND gate using Logisim simulator.

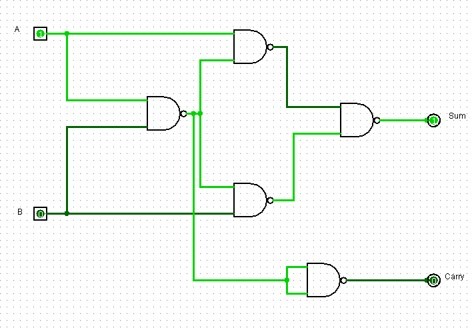
**PROCEDURE:**

1. Pick and place the necessary gates.
2. Insert 2 inputs into the canvas.
3. Connect the inputs to the XOR gate and AND gate.
4. Insert 2 outputs into the canvas.
5. Make the connections using the connecting wires.
6. Verify the truth table.

**TRUTH TABLE:**



**OUTPUT**



**RESULT:** Thus 2-bit half adder using NAND gate has been designed and implemented successfully using logisim simulat