

HALF ADDER

EXP.NO: 21

AIM:

To design and implement the two bit half adder 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:

A

B

S

C

0

0

0

0

0

1

1

0

1

0

1

0

1

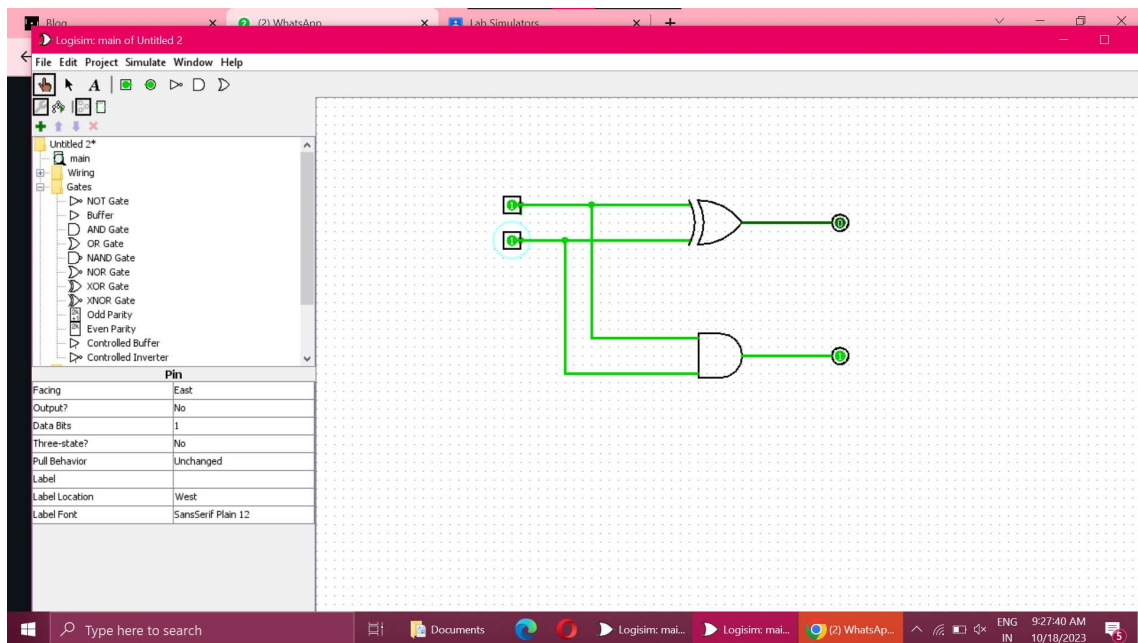
1

0

1

$S = A \text{ XOR } B$ $C = A \text{ AND } B$

OUTPUT



RESULT:

Thus

2-bit half adder has been designed and implemented successfully using logisim simulator.