"Heaven's Light is Our Guide"

Rajshahi University of Engineering & Technology

Department of Computer Science & Engineering

Lab Report

Course Code: CSE 3108
Experiment No:1

Submitted By:	Submitted To:
Name: Farzana Haider **Roll: 2003026** **Section: A** **Year:3rd year Odd Semester**	**Name: Utsha Das** **Lecturer** **Department of CSE** **RUET**

Name of the experiment: Simulation of 2 to 4 decoder using Logisim Evolution software.

Theory:

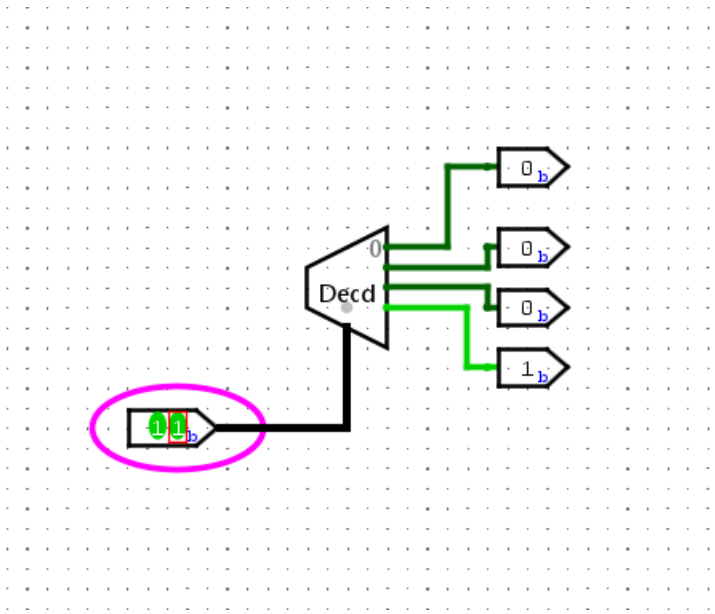
A decoder is a combinational logic circuit that converts binary information from n input lines to a maximum of 2^n output lines. In this experiment, we focus on a 2 to 4 decoder, which takes two inputs and generates four outputs. The inputs represent a binary number, and the outputs indicate which one of the four output lines is active based on the input combination.

Experiment :

Truth Table:

Input		Output			
0	0	1	0	0	0
0	1	0	1	0	0
1	0	0	0	1	0
1	1	0	0	0	1

Output:



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Lab Report

Course Code: CSE 3108
Experiment No:2

Submitted By:	Submitted To:
Name: Farzana Haider **Roll: 2003026** **Section: A** **Year: 3rd year Odd Semester**	**Name: Utsha Das** **Lecturer** **Department of CSE** **RUET**

Name of the experiment: Simulation of 4-bit Full Adder circuit using Logisim Evolution software.

Theory:

A full adder is a digital circuit that performs addition of three input bits: A, B, and a carry input (Cin). It produces a sum output (S) and a carry output (Cout). In this experiment, we aim to design a 4-bit full adder.

Experiment:

Table:

A3	A2	A1	A0	B3	B2	B1	B0	Cin	Sum3	Sum2	Sum1	Sum0	Cout
0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	1	0	0	0	0	1	0
0	0	0	0	0	0	1	0	0	0	0	1	0	0
0	0	0	0	0	0	1	1	0	0	0	1	1	0
0	0	0	0	0	1	0	0	0	0	1	0	0	0
0	0	0	0	0	1	0	1	0	0	1	0	1	0
0	0	0	0	0	1	1	0	0	0	1	1	0	0
0	0	0	0	0	1	1	1	0	0	1	1	1	0
...	...	...	...	...	...	...	...	...	...	...	...	...	...

Output: