**Lab 03**

**INTRODUCTION TO XILINX ISE, Spartan 6 BOARD AND**

**IMPLEMENTATION OF RIPPLE CARRY ADDER AND FULL SUBTRACTOR**



Spring 2025

CSE-308L

Digital System Design Lab

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Class Section: B

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Submitted to:

Engr. Shah Zada Fahim Jan

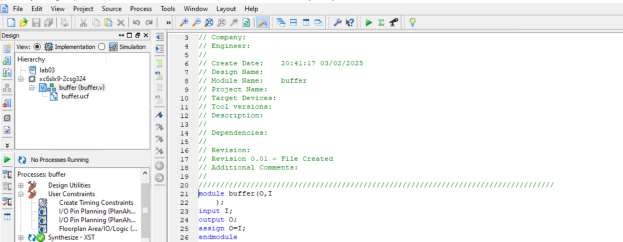
16 March 2025

Department of Computer Systems Engineering

University of Engineering and Technology, Peshawar

LAB TASKS:

1-Implement buffer ON the Kit and attach the snapshot.



**Output on Xilinx:**



2-Implement AND/OR/XOR gate on the Kit and attach the snapshot.

**And Gate:**

A screenshot of a computer program

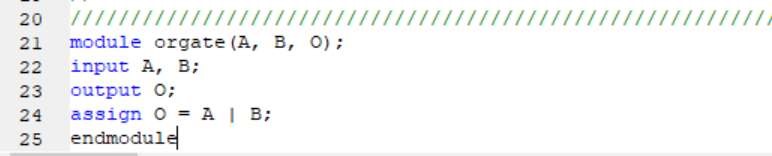
AI-generated content may be incorrect.

**Output:**

A close-up of a computer

AI-generated content may be incorrect.

**OR Gate:**



**Output:**



**XOR Gate:**

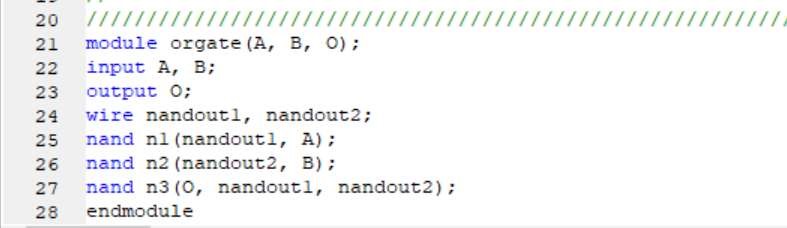
A white background with black text

AI-generated content may be incorrect.

**Output:**



**3-Impement OR gate using NAND gate**

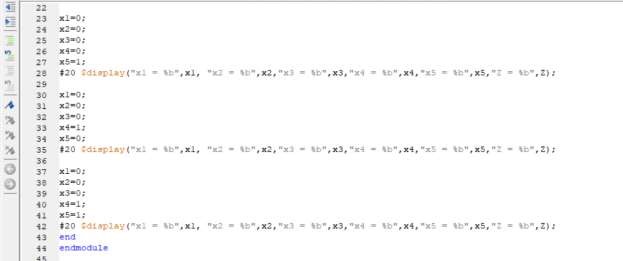
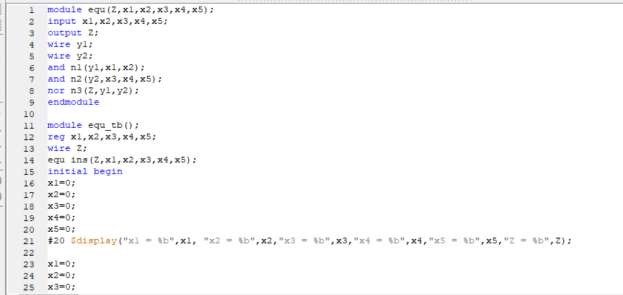


**Output Xilinx:**



1. **Implement Lab1 and Lab1 ON the Kit and attach snapshot.**

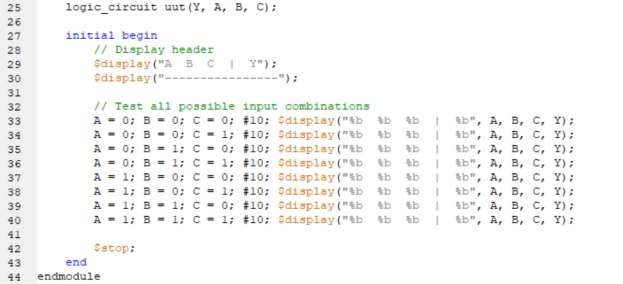
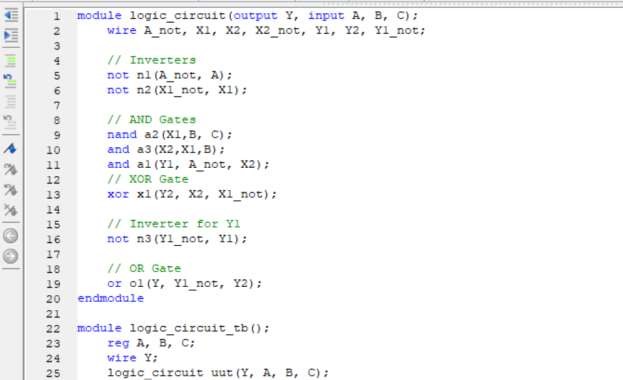
**Equation:**



**Xilinx output:**



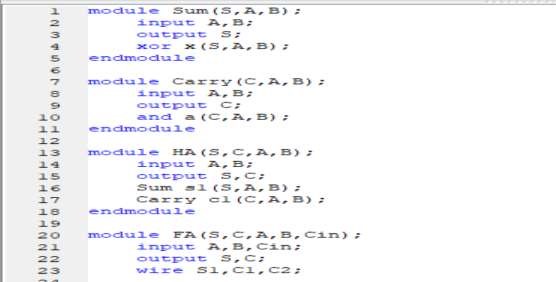
**Logic Circuit:**

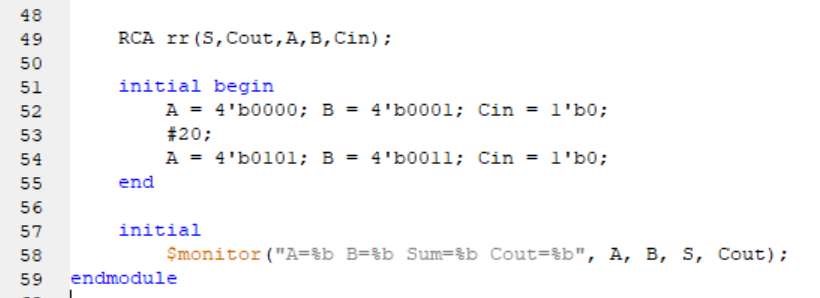
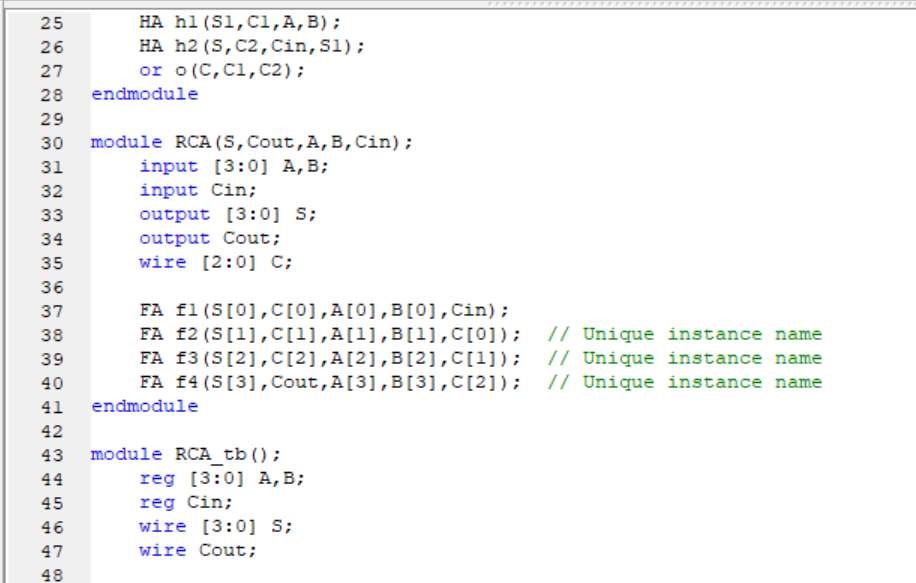


**Xilinx Output:**



**Ripple Carry Adder:**





1. **Implement Full Subtractor on the board and verify the truth table**



A close up of a text

AI-generated content may be incorrect.

**Output Xilinx:**

A black electronic board with many small components

AI-generated content may be incorrect.