Lab 2

ECE 3300 LAB

SECTION 02

Instructor: Mohamed Aly

September 20, 2021

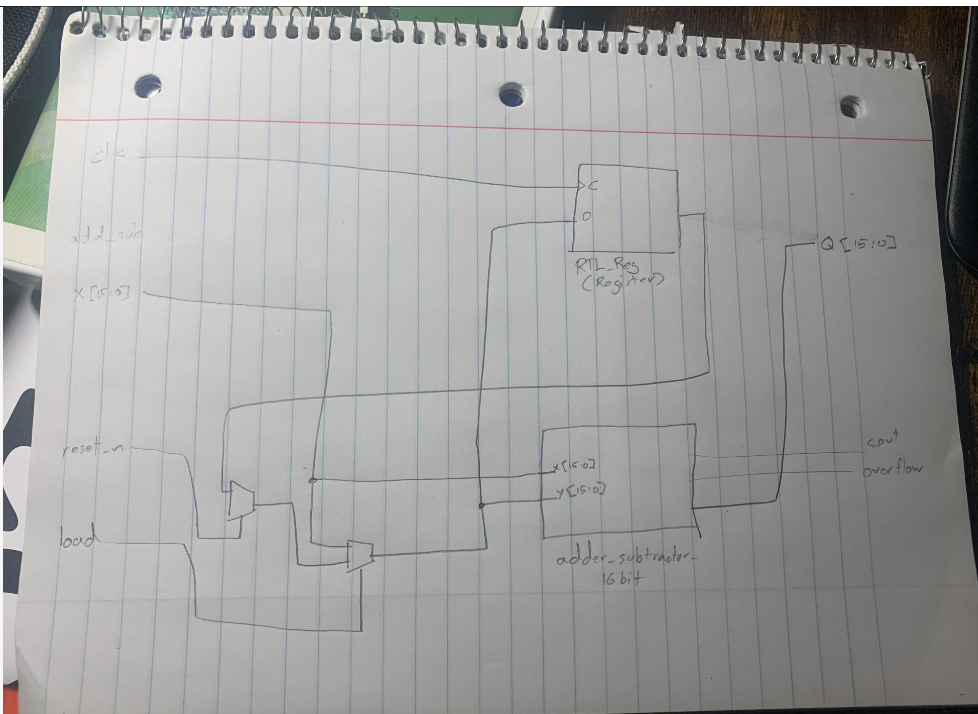
Group I

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**Abstract**

Purpose of the experiment was to create a simple adder/subtractor using all the switches on the Arty 7 FPGA board. Task was to create two 16-bit inputs with three buttons. One button would be used to load in the bits for input A. The second button was used to add the bits inserted from input A and input B. The last button was to reset the board in order to use inputs A and B. Full adder was created using structural modeling then instantiated into 16 bit full adder. From there, adder subtractor was created to add between two inputs. A register was also created to store values from inputs.

**Theory: Sketch of Design**



**Area/Resources Information**

Elaborated Design

Diagram

Description automatically generated

**Power Usage**

**Graphical user interface, text, application

Description automatically generated**

**Post-Implementation Resource Utilization**

