Submission Sheet - Lab 8

Name: _Nathan Spence_   Section: _L01_

     Scan this file and submit it on Canvas with the required images properly labeled in one file. Also include the required code. Every sign off requires either code or an image for points to be awarded.
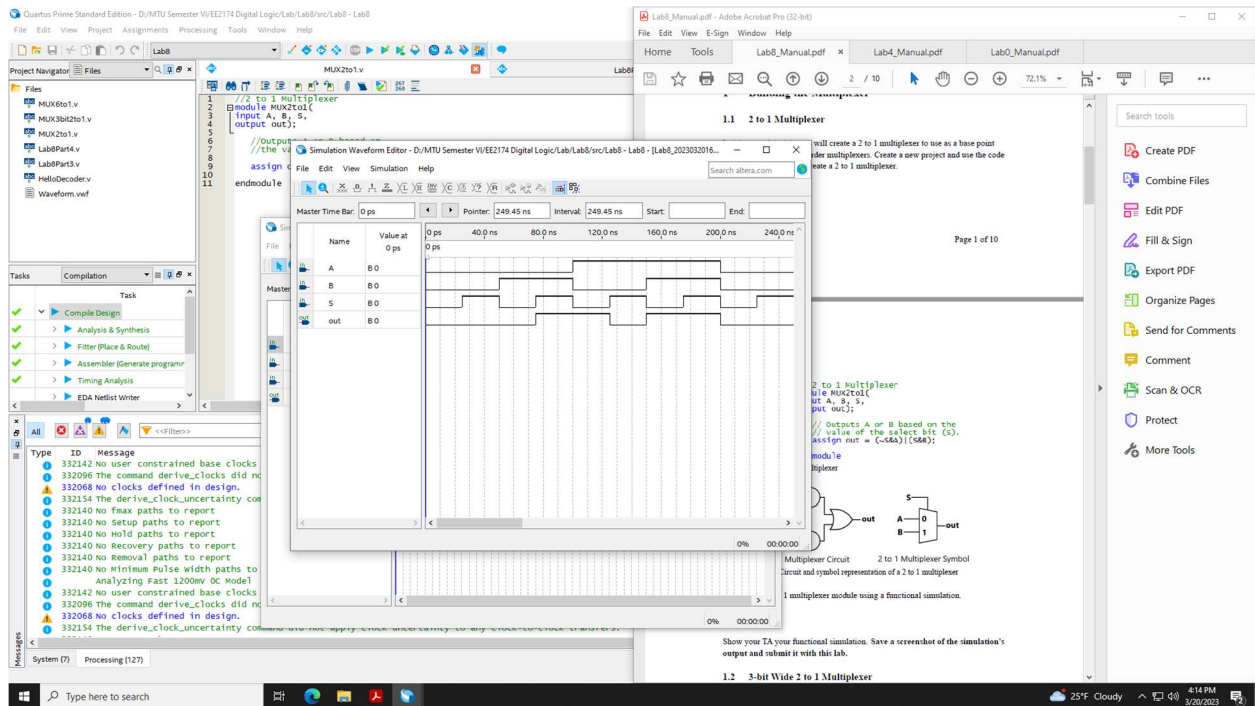
1. TA's initials for the completion of the functional simulation in Part 1.1. (15 Points)
   Initials: _____ Date: _03/20_

2. TA's initials for the completion of the functional simulation in Part 1.2. (15 Points)
   Initials: _____ Date: _03/20_

3. TAs initials for the completion of the physical implementation of displaying the letters on a single display in Part 2. (20 Points)
   Initials: _____ Date: _03/20_

4. TAs initials for the completion of the physical implementation of displaying the word "HELLO" in Part 3.2. (20 Points)
   Initials: _____ Date: _03/20_

5. TAs initials for the completion of positional word control using switches in Part 3.2. (20 Points)
   Initials: _____ Date: _03/20_

6. TAs initials for the completion of the physical implementation of the scrolling "HELLO" in Part 4.1. (20 Points)
   Initials: _____ Date: _03/20_

7. TAs initials for the completion of the direction control implementation for Part 4.2. (20 Points)
   Initials: _____ Date: _03/20_

8. Write a one paragraph reflection on how modular design factored into how you implemented this lab. (20 Points)

Modular design provided the necessary abstraction to make this lab manageable within the two hour window. In order to create the 6-1 3-bit multiplexer, five 3-bit 2-1 multiplexers were used. Parts 2 and 3 of the lab directly used the Hello Decoder module we created, and Part 4 directly instantiated Part 3, simply adding a timer. Modular instantiation removed redundant code, and cleaned up the design process.

One-bit wide 2-1 MUX

Three-bit wide 2-1 MUX