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In class lab assignment 1 – BUZZER

CSc 34300 & CSc 34200

Due 2/16/2022

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# Objective

The objective of this lab is to simulate the Buzzer and 4to1 Mux code and verify its accuracy with the truth tables.

# Buzzer

Screenshots:

Text

Description automatically generated

Figure 1. Code for Buzzer file

Graphical user interface, text, application, email

Description automatically generated

Figure 2. Code for AND2

Graphical user interface, text

Description automatically generated

Figure 3. Code for NOT1

Text

Description automatically generated with medium confidence

Figure 4. Code for OR2

Graphical user interface, application

Description automatically generated

Figure 5. Compilation Report in Quartus

Graphical user interface, application, Word

Description automatically generated

Figure 6. Compilation in ModelSim

A screenshot of a computer

Description automatically generated

Figure 7. Waveform in ModelSim

A screenshot of a computer

Description automatically generated with medium confidence

Figure 8. Verification of an example

A screenshot of a computer

Description automatically generated with medium confidence

Figure 9. Another example

# 4 to 1 Mux

Graphical user interface, text, application

Description automatically generated

Figure 10. Compile in Quartus for Mux



Figure 11. Compilation in ModelSim

A screenshot of a computer

Description automatically generated

Figure 12. Waveform of 4:1 Mux

A screenshot of a computer

Description automatically generated

Figure 13. Example of MSGS

A screenshot of a computer

Description automatically generated

Figure 14. Verification example

A screenshot of a computer

Description automatically generated

Figure 15. Verification, s1, s0, a, output 0

A screenshot of a computer

Description automatically generated with medium confidence

Figure 16. Verification s0 0 s1 1 a 1 output 1

# Explanation

The screenshots demonstrate how I was able to reach my goal of compiling the code and then importing it to modelsim to get waves.

# Conclusion

From doing the tutorial from the previous week, I was able to compile and get waveforms from ModelSim.