General advice on formatting and style:

To be a successful engineer, it is not enough to just build things; you have to communicate your work to your bosses, colleagues, and the public and convince them that what you've created is worthwhile. So when you're writing a lab report and aren't sure how formal you should make it, ask yourself, would I be comfortable with giving this to my boss? What about another engineer who has to improve on your system?

Lab guidelines

- Lab reports must be **typed and submitted as a pdf** on Polylearn
- Lab reports should contain a "Summary" and "Verification" section
    - Combined these **should not exceed 1 page**
- **Summary** should contain an overview of what you've built, and what it does
    - Boolean equations, block diagrams, and/or circuit schematics would go here
    - Schematics and block diagrams may be NEATLY hand drawn. They must be clearly captioned so I know what I'm looking at
- **Verification** should prove to me that you verified your circuit in hardware
    - If you exhaustively tested all input cases on the board, say so
    - If you exhaustively tested all cases in simulation, and then tested a few on the board, say so
    - If you didn't exhaustively test your circuit in the board or in simulation, tell me what cases you used, and why these are sufficient
- "Summary" and "Verification" combined **should take no more than 1 page** (2 with large figures)
- Include any lab "Questions" in a section called **Answers to Questions** after the Verification and Summary sections
    - Include the question description in your report

Lab 1 Report

Name

Summary:

Description of what you built and what it does. A schematic, like the one in Figure 1, would be a good thing to have in here. As would some Boolean equations that describe the circuits function, like we see in Equation (1).

$$Y = \bar{A}B + AB \qquad (1)$$

This should be relatively brief, and should give someone who has never read the lab assignment an idea about what it is you built.

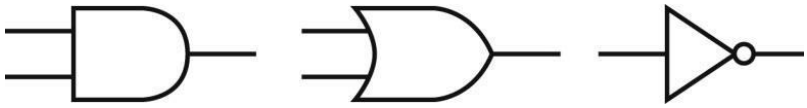

Figure 1. Schematics and block diagrams are ALWAYS good ideas

Verification

Use this section to tell me how you tested your circuit. Did you simulate it? What input combinations did you use? How did you test on the FPGA? Why you think the test cases adequately test the circuit.

Answers to Questions

Some lab write-ups will include questions. Please include the questions themselves and your answers to these questions here.

Code

You can upload your code with your report on PolyLearn.