EPCE 174 – Fall 2011
Lab Report Format

Each team is required to submit a typed lab report for each lab experiment. Partners will alternate writing the report. Author should submit the lab report via Sakai before the beginning of the subsequent lab period. Author will receive an individual grade for the writing of the report; both lab members will receive a grade for the technical content of the report so make sure to discuss the questions and work together on that part of the report.

Lab reports should address a technical audience unfamiliar with the specifics of your lab. As you are relating work you performed, you may use "We" and "I". Avoid using passive voice as it confuses the subject and idea (see the web link describing passive voice and especially the section pertaining to lab reports).

Structure:

Your lab report should include the following sections:

- **Problem Summary**: Summarize in your own words the problem to solve.
- **Design Approach**: Describe the your design approach.
- **Verification Procedure**: Describe the approach used during lab to test and verify your design including any problems occurring during the lab and the approach used to solve them.
- **Post-Lab Questions**: Answer any questions posed in the lab handout
- **Appendix**: Include all relevant code.

The first two sections should match your pre-lab. Include block diagrams, figures, and simulation results in the text of the report as demonstrated in this report. Figure 1 represents a VHDL code snippet while Figure 2 demonstrates a simulation waveform.

```
LA <= '1' WHEN (state = B OR state = D OR state = E) ELSE '0';
LB <= '1' WHEN (state = B OR state = C OR state = E) ELSE '0';
LC <= '1' WHEN (state = B OR state = D OR state = E) ELSE '0';
RA <= '1' WHEN (state = B OR state = G OR state = H) ELSE '0';
RB <= '1' WHEN (state = B OR state = F OR state = H) ELSE '0';
RC <= '1' WHEN (state = B OR state = G OR state = H) ELSE '0';
```

Figure 1: VHDL Code Block Showing Outputs

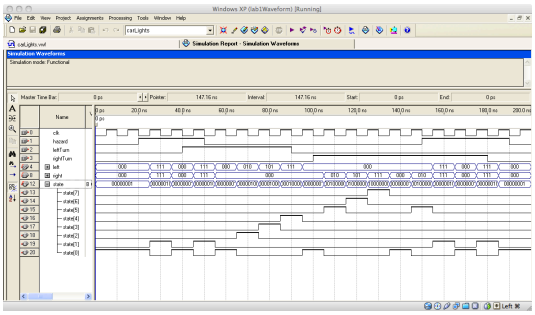

Figure 2: Simulation Waveform

See rubric (Table 1) below for further grading details.

Questions and Feedback:
If you have any questions, you can always bring a draft to my office for review or email me specific questions. I will not review drafts via email, but am happy to go over a draft in person.

I will return reports via Sakai with feedback. Once grades are released, check Sakai to review comments on your report.

CATEGORY	**2**	**1.5**	**1**	**0.5**
Organization	Information is very organized with well-constructed paragraphs and subheadings.	Information is organized with well-constructed paragraphs.	Information is organized, but paragraphs are not well constructed.	The information appears to be disorganized.
Quality of Information	Ideas are clear, concise, and relevant. The report is easy to follow with a logical progression of ideas and clear transitions between them.	Ideas are mostly clear, concise, and relevant. The report is mostly easy to follow with a logical progression of ideas and clear transitions between them.	Ideas are mostly clear and concise, but not relevant. The report is mostly easy to follow with a logical progression of ideas although transitions may not be clear between them.	Ideas are not clear, concise, ort relevant. The report is hard to follow without a logical progression of ideas and clear transitions between them.
Amount of Information	All topics are addressed and all questions answered with at least 3 sentences about each. Fonts, spacings, and margins are reasonable.	All topics are addressed and most questions answered with at least 3 sentences about each. Some fonts, spacings, and margins may compress or expand information too much (for example, 8 point font or 28 point font).	All topics are addressed, and most questions answered with 1-2 sentences about each. Some fonts, spacings, and margins may compress or expand information too much (for example, 8 point font or 28 point font).	One or more topics were not addressed. Some fonts, spacings, and margins may compress or expand information too much (for example, 8 point font or 28 point font).
Technical Content	Report clearly describes technical problem and solution. Content is understandable to peer, industry, and academic audiences.	Report mostly describes technical problem and solution. Content is understandable to peer, industry, and academic audiences.	Report describes some aspects of technical problem and solution. Content is understandable to those affiliated with lab.	Report does not describe technical problem and/or solution. Content is understandable to lab group only.

Table 1: Grading Rubric