**Report Format Example**

**Design Specification**

* Write down the specification of your design: inputs, outputs and related bit widths. The name should be the same as what you use in the Verilog design files.

For a 4-bit absolute value calculator:

Input: a[3:0].

Output: da[3:0].

* Draw the block diagram of the design.

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**Design Implementation**

* Derive the related logic functions ***and/or*** draw the related logic diagram.

Logic function:

a[3] is sign bit. If a[3]=0, a positive, da=a. If a[3]=1, a negative, da={a[3]’,a[2]’,a[1]’,a[0]’}+4’b0001.

da={a[3]^a[3],a[3]^a[2],a[3]^a[1],a[3]^a[0]}+{3’b000,a[3]}

* List the I/O pin assignment for your design.

**Discussion**

* Record the thoughts you have throughout this experiment.
* Explains why the results came out as you expected, or the things went wrong if they **did** go wrong.
* Analyze and explain the experiment results, including any thoughts, comments, or suggestions related to this experiment.

**Conclusion**

* Summarize what you have learned after finishing this experiment.

**References**

* Write down what you have found for this lab. Do not just write the URL or title of the references but write down something your have learned from the references.