Lab 2

Title: Implementation and Timing Analysis
Date: 6/14/2018

Procedure:
The 8-bit adder procedure from previous labs was re-saved into a new folder and a new type of file was added, a constraints file. Students were given code which mapped the adder8 routine to the basys3 board -details can be found in the google drive under 02. An analysis of the implementation was run using Vivado's built-in tools. Several alternate implementations were run -notably, Area Explore was used. Theoretically, there should be many different ways to get an efficiently running program on a circuitboard, but in this case the program was so simple that implementation made no appreciable difference on performance.

Results:
As was stated in the procedure, different implementations made no real difference in performance on the program, it was far too simple. The assumption which follows is that writing optimized code makes the biggest difference. Results of the test run can be found in the drive under 02.

Summary/Conclusion:
The purpose of this lab was to familiarize students with adding constraints to map specific code implementations to different parts of the basys3 circuitboard.