Lab 4

Title: An 8-Bit Pseudorandom Number Generator
Date: 6/21/2018

Procedure:
In this lab, an 8 bit pseudorandom number was generated for the basys3. To implement the design, a simple clock divider, an lfsr, and a lookup table were created. The lfsr generated random numbers by appending an aggregate of numbers from the lfsr onto the end of it (just pick some things and xor them). The number was generated every divided clock cycle, and translated into a 7-segment display code.

Results:
The completed product for this lab was a random number generator, the seed could be set with switches on the chip and would display output to the 7-segment display.

Summary/Conclusion:
Pseudorandom number generation is one of the base components of all programs. Now I know how to make them for later. All they require is a clock and enough space to hold a short sequence of binary digits.