

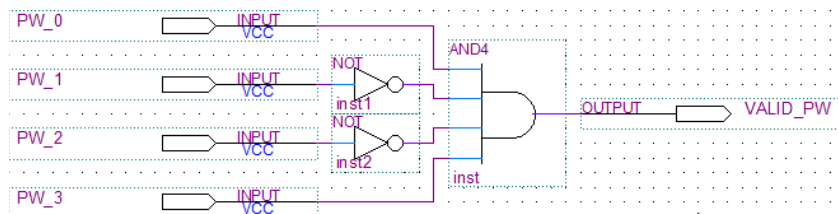
Class:	CPE100L-1002	Semester:	Spring 2020
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		Document topic:	Prelab 11
Instructor's comments:			

Introduction / Theory of operation

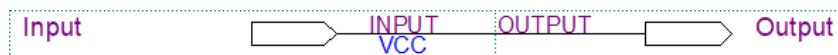
Lab 11 is about code locks, where we learn to use a simple counter to build a code lock with limited number of allowed combination errors.

Prelab main content

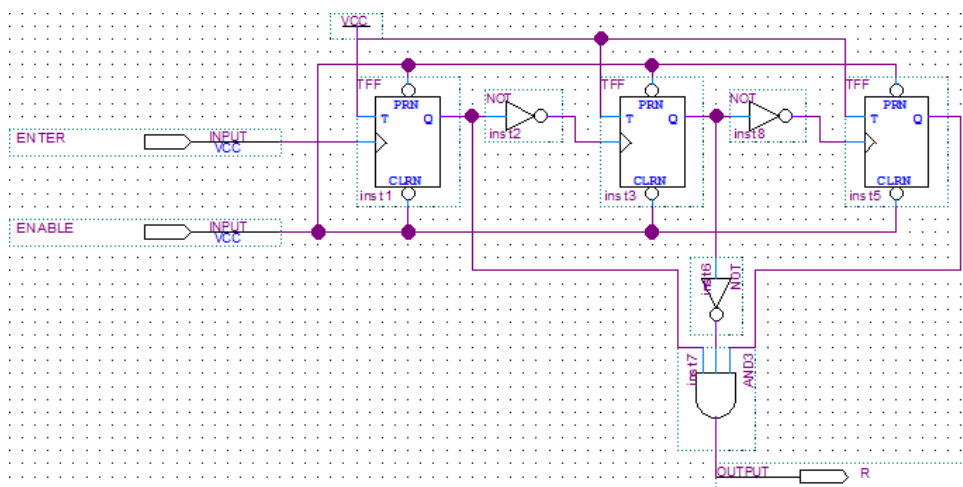
1. Schematics created in Quartus



Password Entry Block

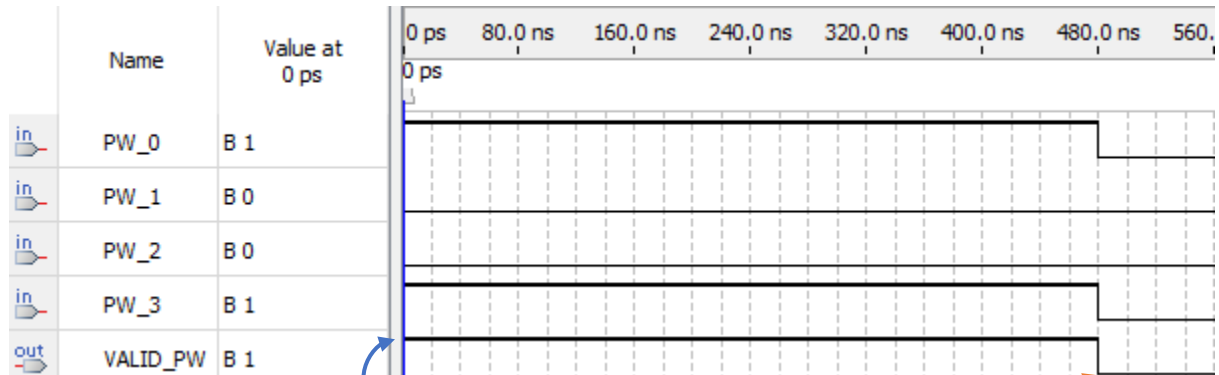


Display 'Open' / 'Bloc' Block



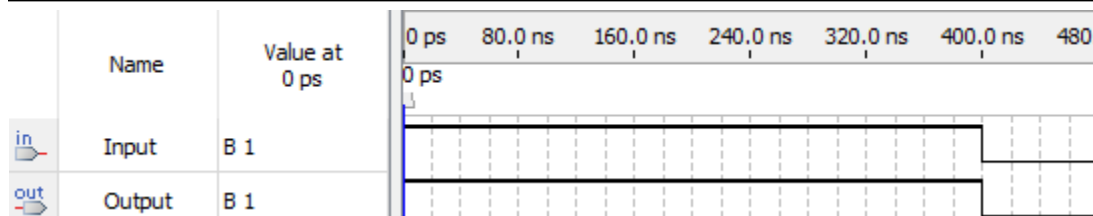
Count Failures / Three Bit Counter Block

2. Simulation waveform generated by Quartus



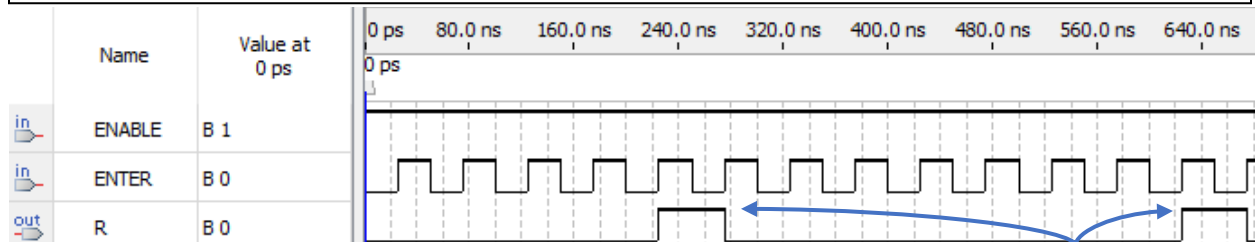
Password Entry Block:

Correct or valid password is “1” when the input combination of 1001 is inputted, and “0” otherwise.



Display ‘Open’ / ‘Bloc’ Block:

Display was supposed to be similar to a 7-segment display, but I heard that it was to be changed to a simple output.



Count Failures / Three Bit Counter Block:

The count is not displayed, but according to the schematic I designed, R will be “1” whenever the combination is 101.