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1  ----------------------------------------------------------------------------------
2  -- Name: Capt Jeff Falkinburg
3  -- Date: Spring 2016
4  -- Course: ECE 281
5  -- File: ce2_half_adder.vhd
6  -- HW: Lecture 13
7  -- Purp: Half Adder - Behavioral Implementation.
8  --
9  -- Doc: None
10 -- Academic Integrity Statement: I certify that, while others may have
11 -- assisted me in brain storming, debugging and validating this program,
12 -- the program itself is my own work. I understand that submitting code
13 -- which is the work of other individuals is a violation of the honor
14 -- code. I also understand that if I knowingly give my original work to
15 -- another individual is also a violation of the honor code.
16 ----------------------------------------------------------------------------------
17
18 library IEEE;
19 use IEEE.STD_LOGIC_1164.ALL;
20
21 entity ce2_half_adder is
22     Port ( A : in  STD_LOGIC;
23            B : in  STD_LOGIC;
24            S : out  STD_LOGIC;
25            Cout : out  STD_LOGIC);
26 end ce2_half_adder;
27
28 architecture Behavioral of ce2_half_adder is
29
30 begin
31    S <= A xor B;
32    Cout <= A and B;
33
34 end Behavioral;
35
36
```