LIBRARY ieee;  
USE ieee.std\_logic\_1164.all;  
  
ENTITY 7-LED IS  
  
PORT (  
    W : IN STD\_LOGIC;  
    X : IN STD\_LOGIC;  
    Y : IN STD\_LOGIC; Z: IN STD\_LOGIC;  
    a : OUT STD\_LOGIC;  
    b : OUT STD\_LOGIC;  
    c: OUT STD\_LOGIC;  
    d : OUT STD\_LOGIC;  
    e : OUT STD\_LOGIC;  
    f : OUT STD\_LOGIC;  
    g : OUT STD\_LOGIC;  
  
);  
END 7-LED;  
      
ARCHITECTURE Behavior of 7-LED IS  
    begin  
        a <= (not W and not X and not Y and Z) or (not W and X and not Y and not Z) or (W and not X and Y and Z) or (W and X and not Y and Z);  
        b <= (not W and not X and not Y and Z) or (not W and X and not Y and Z) or (not W and X and Y and not Z) or (W and not X and Y and Z) or ( and X and not Y and not Z) or (W and X and not Y and not Z) or (W and X and Y and Z);  
        c <= (not W and not X and not Y and Z) or (not W and not X and Y and not Z) or (W and X and not Y and not Z) or (W and X and Y and Z);  
        d <= (not W and not X and not Y and Z) or (not W and X and not Y and not Z) or (not W and X and Y and Z) or (W and not X and not Y and Z) or (W and not X and Y and not Z) or (W and X and Y and not Z) or (W and X and Y and Z);  
        e <= (not W and not X and Y and Z) or ( not W and X and not Y and not Z) or (not W and X and not Y and Z) or (not W and X and Y and Z) or (W and not X and not X and Z);  
        f <= (not W and not X and Y and not Z) or (not W and not X and not Y and Z) or (not W and X and Y and Z) or (W and X and not Y and not Z);  
        g <= (not W and not X and not Y and not Z) or (not W and not X and not Y and Z) or (not W and X and Y and Z) or (W and X and not Y and not Z);  
  
END Behavior;