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BSCpE- 3A

DECODER

```
library IEEE;  
use IEEE.STD_LOGIC_1164.ALL;  
use IEEE.NUMERIC_STD.ALL;
```

```
entity kris_deco is  
  Port (  
    a : in STD_LOGIC_VECTOR (2 downto 0);  
    b : out STD_LOGIC_VECTOR (3 downto 0)  
  );  
end kris_deco;
```

architecture Behavioral of kris_deco is
begin

```
  process (a)  
  begin  
    case a is  
      when (not "000") => b <= (not "0001");  
      when (not "001") => b <= (not "0010");  
      when (not "010") => b <= (not "0100");  
      when (not "011") => b <= (not "1000");  
      when (not "100") => b <= (not "0001");  
      when (not "101") => b <= (not "0010");  
      when (not "110") => b <= (not "0100");  
      when (not "111") => b <= (not "1000");  
      when others => b <= "0000";  
    end case;  
  end process;  
end Behavioral;
```

