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-- Company:
-- Engineer:
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-- Create Date: 14.12.2022 11:26:08
-- Design Name:
-- Module Name: Dvas_tb - Behavioral
-- Project Name:
-- Target Devices:
-- Tool Versions:
-- Description:
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-- Dependencies:
--
-- Revision:
-- Revision 0.01 - File Created
-- Additional Comments:
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```

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

```
-- Uncomment the following library declaration if using
-- arithmetic functions with Signed or Unsigned values
--use IEEE.NUMERIC_STD.ALL;
```

```
-- Uncomment the following library declaration if instantiating
-- any Xilinx leaf cells in this code.
--library UNISIM;
--use UNISIM.VComponents.all;
```

```
entity Dvas_tb is
-- Port ( );
end Dvas_tb;
```

```
architecture Behavioral of Dvas_tb is
COMPONENT Dvas
PORT(
    D : IN std_logic;
    CLK : IN std_logic;
    Q : OUT std_logic;
    Qn : OUT std_logic
);
END COMPONENT;
```

```
--Inputs
```

```

signal D : std_logic := '0';
signal CLK : std_logic := '0';

--Outputs
signal Q : std_logic;
signal Qn : std_logic;

-- Clock period definitions
constant CLK_period : time := 10 ns;

BEGIN

-- Instantiate the Unit Under Test (UUT)
uut: Dvas PORT MAP (
    D => D,
    CLK => CLK,
    Q => Q,
    Qn => Qn
);

-- Clock process definitions
CLK_process :process
begin
    CLK <= '0';
    wait for CLK_period/2;
    CLK <= '1';
    wait for CLK_period/2;
end process;

-- Stimulus process
stim_proc: process
begin
    -- hold reset state for 100 ns.
    wait for 12.5 ns;

    --wait for CLK_period*10;

    -- insert stimulus here
    D<='0';
    wait for CLK_period*1.5;
    D<='1';
    wait for CLK_period*2.5;
    D<='0';

    wait;
end process;

```

end Behavioral;