

```
1: --
2: -- Entity: dff
3: -- Architecture : structural
4: -- Author: cpatel2
5: --
6: --
7: library STD;
8: library IEEE;
9: use IEEE.std_logic_1164.all;
10:
11: entity dff is
12: port (
13:     d    : in  std_logic;
14:     clk  : in  std_logic;
15:     q    : out std_logic
16: );
17: end dff;
18:
19: architecture structural of dff is
20:
21: begin
22:     output: process
23:     begin
24:         wait until ( clk'EVENT and clk = '0' );
25:         q <= d;
26:     end process output;
27: end structural;
```