

```
1: library STD;
2: library IEEE;
3: use IEEE.std_logic_1164.all;
4:
5: entity mux_2_1 is port (
6:   in1: in std_logic;
7:   in2: in std_logic;
8:   sel: in std_logic;
9:   out1: out std_logic);
10: end mux_2_1;
11: architecture structural of mux_2_1 is
12:
13: begin
14:
15: out1 <= (in1 and (not sel)) or (in2 and sel);
16:
17: end structural;
```