

Name: Richard Raymond J. Canda

C.Y.S.: BSCpE – 3A

The CODE:

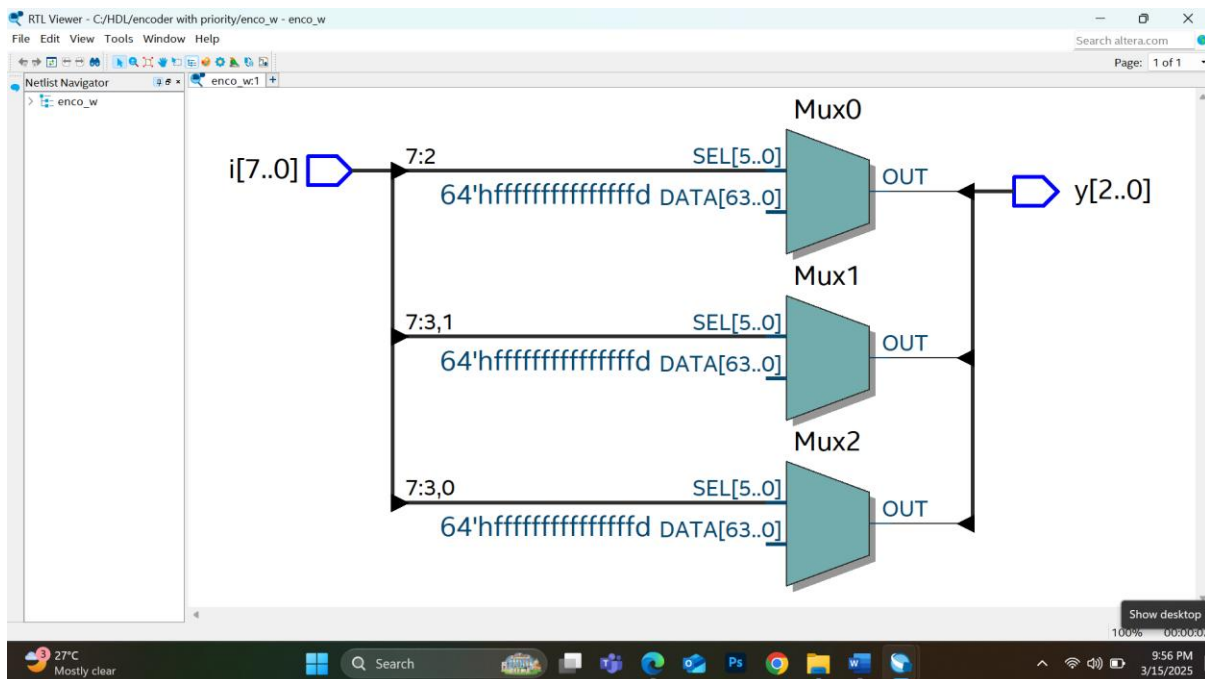
```
library IEEE;
use IEEE.STD_LOGIC_1164.ALL;
use IEEE.STD_LOGIC_ARITH.ALL;
use IEEE.STD_LOGIC_UNSIGNED.ALL;
entity enco_w is
    Port ( i : in  STD_LOGIC_VECTOR (7 downto 0);
          y : out STD_LOGIC_VECTOR (2 downto 0));
end enco_w;
architecture Behavioral of enco_w is
begin
    with i select
    y<="000" when "00000111",
    "001" when "00000110",
    "010" when "00000101",
    "011" when "00000100",
    "100" when "00000011",
    "101" when "00000010",
    "110" when "00000001",
    "111" when others;
end Behavioral;
```

```

1  library IEEE;
2  use IEEE.STD_LOGIC_1164.ALL;
3  use IEEE.STD_LOGIC_ARITH.ALL;
4  use IEEE.STD_LOGIC_UNSIGNED.ALL;
5  entity enco_w is
6  Port ( i : in  STD_LOGIC_VECTOR (7 downto 0);
7        y : out  STD_LOGIC_VECTOR (2 downto 0));
8  end enco_w;
9  architecture Behavioral of enco_w is
10 begin
11   with i select
12   y<="000" when "00000111",
13   "001" when "00000110",
14   "010" when "00000101",
15   "011" when "00000100",
16   "100" when "00000011",
17   "101" when "00000010",
18   "110" when "00000001",
19   "111" when others;
20 end Behavioral;

```

The LOGIC GATE:



The WAVEFORM:

