

```
entity sev_seg_decoder is
    Port ( binary_num : in STD_LOGIC_VECTOR (3 downto 0);
          ABCDEFG : out STD_LOGIC_VECTOR (6 downto 0));
end sev_seg_decoder;

architecture Behavioral of sev_seg_decoder is

begin
    process(binary_num)
    begin
        case binary_num is

            when "0000" => ABCDEFG <="0000001";
            when "0001" => ABCDEFG <="1001111";
            when "0010" => ABCDEFG <="0010010";
            when "0011" => ABCDEFG <="0000110";
            when "0100" => ABCDEFG <="1001100";
            when "0101" => ABCDEFG <="0100100";
            when "0110" => ABCDEFG <="1100000";
            when "0111" => ABCDEFG <="0001111";
            when "1000" => ABCDEFG <="0000000";
            when "1001" => ABCDEFG <="0001100";
            when others => ABCDEFG <="0111000";

        END CASE;
    END PROCESS;

end Behavioral;
```