Post lab exp 9: Saja asfour 1210737 Sec 8

-write code for 7 segment drivers working on common anode

```
module segment(a,b,c,d,e,f,g,anode,seg);
 2
     // Inputs
 3
     input a:
 4
     input b;
 5
     input c;
 6
     input d;
     input e;
    input f;
     input g;
10
    input anode;
11
12
    // Outputs
    output [7:0] seg;
13
14
15
     // Internal signals
    reg [7:0] seg;
16
17
18
    // Logic
19
    always @ (a or b or c or d or e or f or g or anode)
20 ■begin
21
        seg = 8'bllllllll;
         if (anode == 1) begin
  if (a == 1) seg[0] = 0;
23
             if (b == 1) seg[1] = 0;
24
            if (c == 1) seg[2] = 0;
25
             if (d == 1) seg[3] = 0;
26
             if (e == 1) seg[4] = 0;
27
             if (f == 1) seg[5] = 0;
28
             if (g == 1) seg[6] = 0;
29
30
        end else begin
31
             if (a == 0) seg[0] = 1;
             if (b == 0) seg[1] = 1;
32
             if (c == 0) sec[2] = 1:
33
```

```
input anode;
11
           // Outputs
13
14
          output [7:0] seg;
15
16
17
           // Internal signals
          reg [7:0] seg;
18
19
           // Logic
           always @ (a or b or c or d or e or f or g or anode)
20
       ■begin
                   seg = 8'blllllll;
21
22
                 if (anode == 1) begin
   if (a == 1) seg[0] = 0;
   if (b == 1) seg[1] = 0;
   if (c == 1) seg[2] = 0;
23
24
25
                         if (c == 1) seg[3] = 0;
if (d == 1) seg[3] = 0;
if (e == 1) seg[4] = 0;
if (f == 1) seg[5] = 0;
if (g == 1) seg[6] = 0;
26
27
28
29
30
                  end else begin
                         if (a == 0) seg[0] = 1;
if (b == 0) seg[1] = 1;
if (c == 0) seg[2] = 1;
31
32
33
                         if (c == 0) seg[3] = 1;
if (d == 0) seg[3] = 1;
if (e == 0) seg[4] = 1;
if (f == 0) seg[5] = 1;
if (g == 0) seg[6] = 1;
34
35
36
37
38
           end
end
40
           endmodule
```