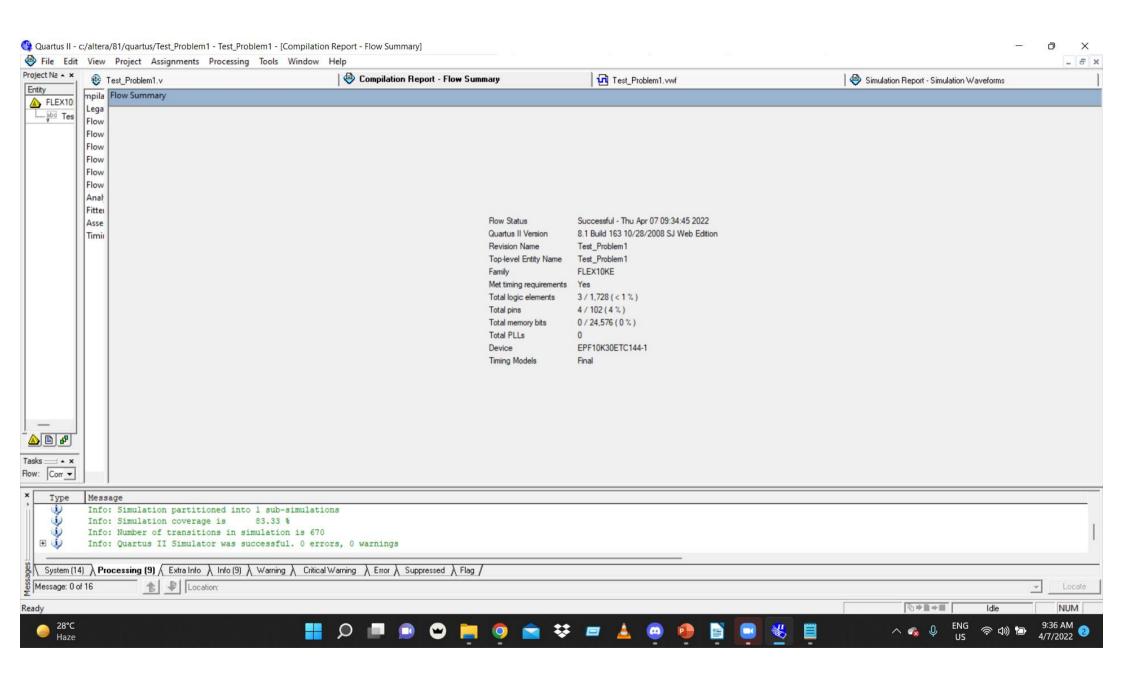
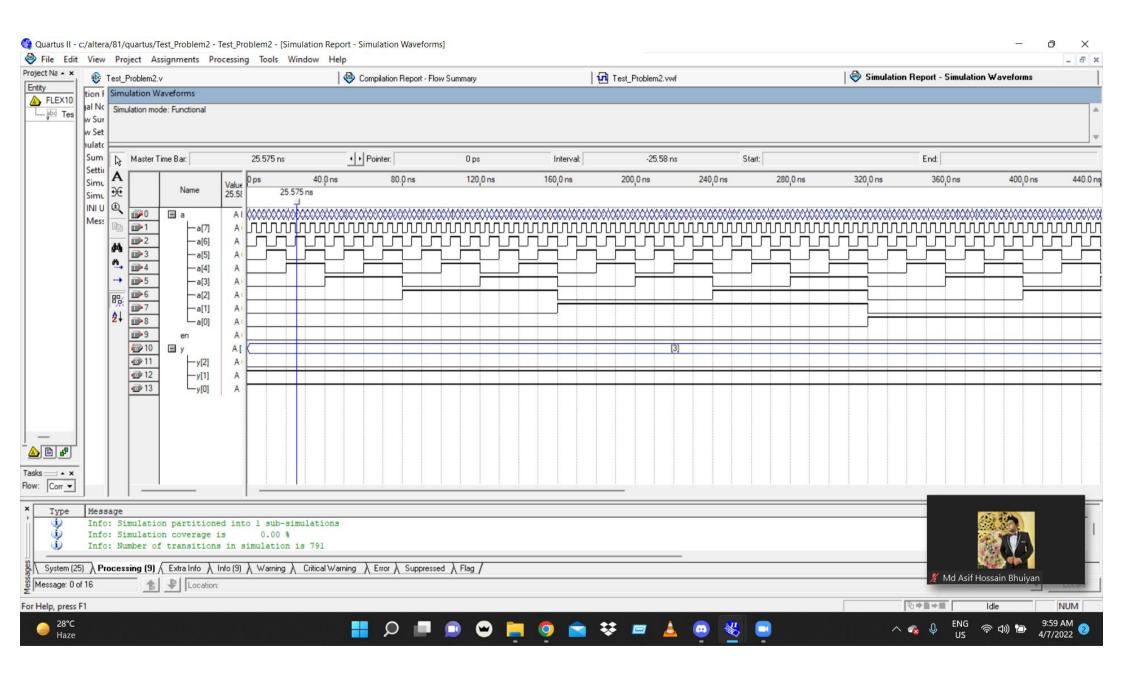
```
module Test_Problem2(en,a,y);
input en;
input[7:0]a;
output[2:0]y;
reg[2:0]y;
always@(a,en)
begin
case(a)
      8'bxxx1xxxx: y=4;
      8'bx1x0xxxx: y=6;
      8'bx010xxxx: y=5;
      8'b1000xxxx: y=7;
      8'b0000xxx1: y=0;
      8'b0000x1x0: y=2;
      8'b0000x010: y=1;
      8'b00001000: y=3;
endcase
end
endmodule
```





```
module Test Problem1(Clock, Resten, w, z);
input Clock, Resten, w;
output reg z;
reg [2:1]y,Y;
parameter S0=2'b00, S1=2'b01, S2=2'b10;
always @(w, y)
begin
case (y)
S0: if(w)
begin
Y=S0;
z=0;
end
else
begin
Y=S1;
z=0;
end
S1: if(w)
begin
Y=S2;
z=0;
end
else
begin
Y=S1;
z=0;
end
S2: if(w)
begin
Y=S0;
z=0;
end
else
begin
Y=S1;
z=1;
end
endcase
end
always @(negedge Resten, posedge Clock)
if (Resten==0) y<=S0;
else y<=Y;
```

