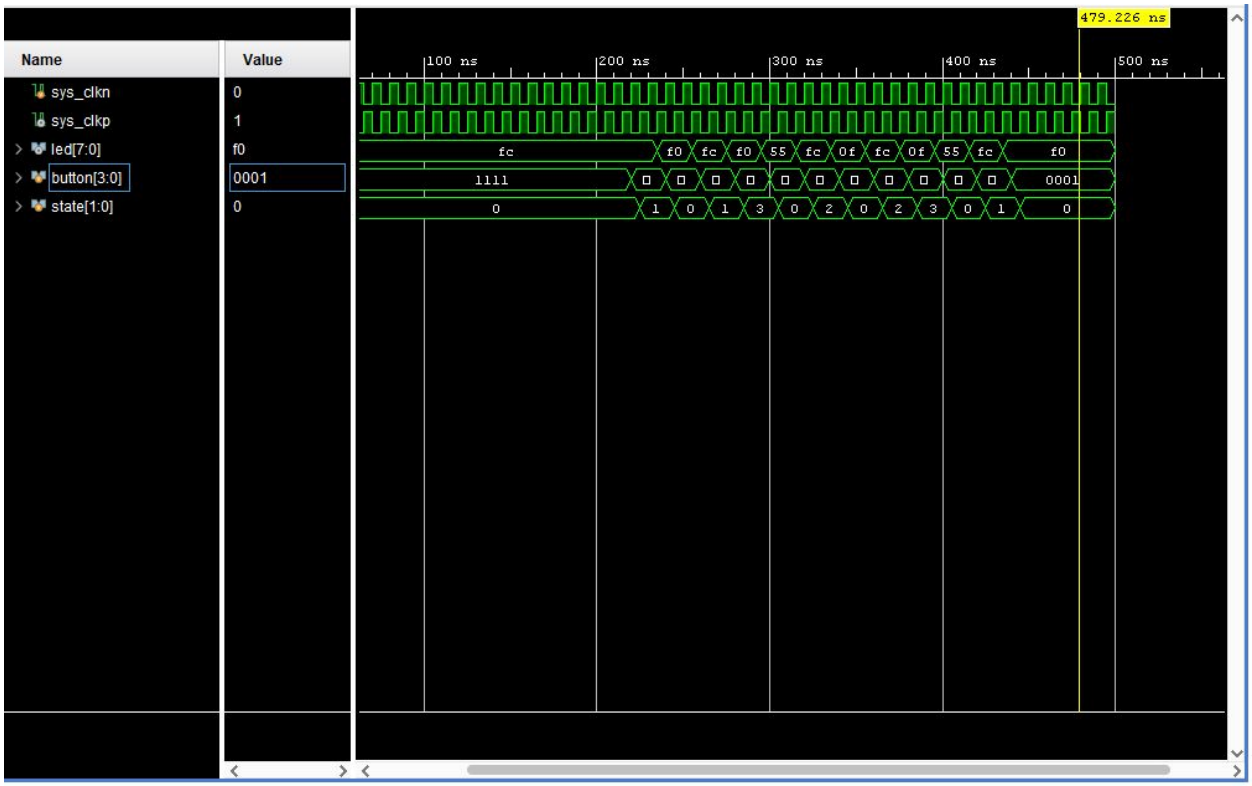
This is behavioral simulation



This is post implementation simulation

Errors: The main difference in behavioral and post implementation is that behavioral assumes perfect scenario and assumes no delays where as post implementation is routed and accounts for the propagation delays that can occur during actual design runs.

1. LED’s setup time takes sometime and led_register has no value so it is in an undefined state.

2. The Led’s have to go through a not gate which has some delay, this is not accounted for and hence ends up displaying the wrong state on leds.
   On The behavioral Simulation, the led is almost instant while on the post implementation simulation it takes almost 20-30ns. This is again due to the delays of logic gates or timing mismatches.

3.Same thing as above happens here.