1. library IEEE;

2. use IEEE.STD\_LOGIC\_1164.ALL;

3. use IEEE.NUMERIC\_STD.ALL;

4.

5. entity sekunti\_laskuri is

6. port (

7. clk : in STD\_LOGIC;

8. led : out STD\_LOGIC\_VECTOR(6 downto 0)

9. );

10. end sekunti\_laskuri;

11.

12.

13.

14. architecture behavioral of sekunti\_laskuri is

15. signal clk\_counter : unsigned(25 downto 0) := (others => '0');

16. signal sec\_counter : unsigned(6 downto 0) := (others => '0');

17. constant MAX\_COUNT : unsigned(25 downto 0) := to\_unsigned(49999999, 26);

18. begin

19.

20. process(clk)

21. begin

22. if rising\_edge(clk) then

23. clk\_counter <= clk\_counter + 1;

24.

25. if clk\_counter = MAX\_COUNT then

26. clk\_counter <= (others => '0');

27. sec\_counter <= sec\_counter + 1;

28.

29. if sec\_counter = "1111111" then

30. sec\_counter <= (others => '0');

31.

32. end if;

33. end if;

34. end if;

35. end process;

36.

37.

38. led <= std\_logic\_vector(sec\_counter);

39.

40. end behavioral;

demo:

[74748637268\_\_666A11F6-08A6-49EA-8AE3-641C0290DB2B.MOV](https://1drv.ms/v/c/2b2980717d4b73cc/EQKhpXmUKVZMki6ik4mWe3kBYr1YVZFGhcbg_VSfffjOsw?e=d5MVOT)