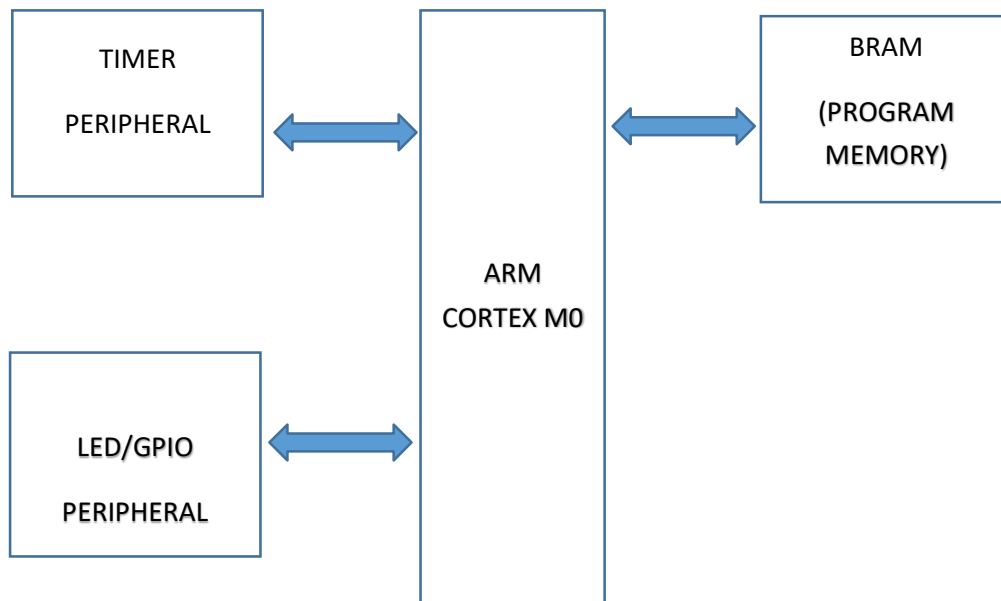


## MINI PROJECT

Design and develop an ARM Cortex M0 based SoC by interfacing the peripherals Timer and GPIO/LED and Synthesis it using ARTY A7 FPGA Kit as given below .



**The SoC should work as follows:**

- 1) Timer should count from '0F' to '00'. Once the count reaches the minimum value ('00'), an interrupt is generated and that should be cleared (using clear register).
- 2) Once timer interrupt becomes high, LED peripheral should output the value 'FF'. (View this output on FPGA Kit)
- 3) After a small delay, LED peripheral should be cleared.