CS2400 Spring 2020

## Homework 04 - Due on April 24<sup>th</sup>

- 1. Write an ARM Assembly program to check a bit stream for even parity.
  - a) Accept a seven-bit binary number in HEX format in R1.
  - b) Find the even parity for the number.
  - c) Append the parity bit as the least significant bit with the seven-bit number store it in R3.

## **Example**

R1 = 0x4E

Equivalent binary is 01001110, calculate even parity => count number of 1s if even append '0' as least significant bit else append '1' as least significant bit.

Here its even so the final number stored will be 010011100, R3 = 0x9C

## File to upload in Moodle:

Submit the ARM file with, Name, Time taken for the program and code, in Moodle before the due date.