COSE321 Computer Systems Design

Assignment #8

No late turn-in accepted

You want to see the cache's impact on performance. Write a program (either assembly-only **or** assembly + C), which takes an input from a switch 0 (SW0) on Zedboard and enables caches (L1 and L2) depending on the switch input. If the switch 0 is on, the caches are enabled. If the switch is in the off position, the caches are disabled. When the caches are disabled, the LEDs should be toggling with the time interval of 1 second.

Check out the linker script and make sure that your program is loaded to external memory (DDR). It seems though that even when the section is allocated to internal OCM, the cache effect is still visible with blinking LEDs.

What and How to submit:

1. Upload your source code (assembly + C (?)) to Blackboard.
2. Upload video clip (2-min?) to YouTube and provide the link to Blackboard. Your video clip should have **at least** the following contents:
    - Your smiling face
    - Understandable explanation of your code
    - Demo on Zedboard

Note: This is an individual assignment. You are welcome to discuss, but DO NOT COPY solutions. If you are found to copy solutions from others or slightly modify the solutions from others, both of you will be given 0 credits.