Homework 02 - Due on September 6th 2019

Write your first ARM assembly language program "MyFirstARM.s". The program will execute the following instructions. You will run the program step by step, observe and answer the question after each statement. Register values for '?' should be written in decimal format.

MyFirstARM.s

;Write your name ,date in which program done before every assignment as comment

;Name: ;Date:

```
        MOV             R2,#0x01                ; R2 = ?
        MOV             R3,#0x02                ; R3 = ?
        ADD             R1,R2,R3                ; R1 = ?
        MOV             R3,#0xFFFFFFFF  ; R3 = ?
        ADDS            R1,R2,R3                ; R1 = ?    and specify the flag updates
        SUBS            R1,R2,R3                ; R1 = ?    and specify the flag updates
        MOV             R4,#0xFFFFFFFF  ; R4 = ?
        ADD             R1,R2,R4                ; R1 = ?
        ;How did that operation affect the flags in xPSR/CPSR?
        ADDS            R1,R2,R4        ; R1 = ?  and Write the changes in flags.
        MOV             R2,     #0x00000002     ; R2 = ?
        ADDS            R1,R2,R4                ; R1 = ?
        ;Write the changes happened to the flags in the xPSR/CPSR?
                                                                ( 6 points)
; Move 2 values in R2 and R3 in the below instructions to set the overflow flag to 1.
        MOV     R2,     ____    ; R2 = ?
        MOV     R3,     ____    ; R3 = ?
        ADDS    R1,R2,R3        ; R1 = ?
        ; Check and write the flags in the xPSR/CPSR?           ( 3 points)
; Move 2 values in R2 and R3 in the below instructions to set the zero flag to 1.
        MOV     R2,     ____    ; R2 = ?
        MOV     R3,     ____    ; R3 = ?
        ADDS    R1,R2,R3        ; R1 = ?
        ; Check and write the flags in the xPSR/CPSR?           ( 3 points)
; Move 2 values in R2 and R3 in the below instructions to set the negative flag to 1.
        MOV     R2,     ____    ; R2 = ?
        MOV     R3,     ____    ; R3 = ?
        ADDS    R1,R2,R3        ; R1 = ?
        ; Check and write the flags in the xPSR/CPSR?           ( 3 points)
```

File to upload in Moodle:

1. The source code in the file **MyFirstARM.s** with the answers.