```
;Nirmal Sheet EE10B067
;Max=R8
;Min=R5
;Avg=R4(quotient)
;   =R3(remainder)


        AREA Program, CODE, READONLY
        ENTRY
Main
        LDR     R6, List                ;R6=Pointer to list
        MOV     R1, #0                  ;R1=Counter
        MOV     R3, #0                  ;R3=Sum stored here
        MOV     R8, #0                  ;R8=largest stored here
        LDRB    R0, [R6], #+1           ;R0=No of variables and increment R6

start   ADD     R1,R1,#1
        LDRB    R2, [R6], #+1           ;R2=element from array and increment R6
        ADD     R3, R3, R2
        CMP     R2,R8
        MOVHI   R8,R2
        CMP     R1,R0
        BLT     start

        MOV     R4,#0
loop1
        SUB     R3,R3,R0                ;R3=Remainder
        ADD     R4,R4,#1                ;R4=Quotient == Average
        CMP     R3,R0
        BHI     loop1

        SUB     R6,R0
        MOV     R1,#1
        LDRB    R5,[R6],#+1             ;first element of array loaded to R5 - smallest


loop2
        LDRB    R7,[R6],#1
        CMP     R7,R5
        MOVLT   R5,R7                   ;at end R5 has smallest number

        ADD     R1,R1,#1
        CMP     R1,R0
        BLT     loop2


        AREA    Data1, DATA, READONLY
Start   DCB     4
        DCB     &08, &07, &09, &05
        AREA    Data2, DATA, READONLY
List    DCD     Start

        END

```

## Assignment - 2 (17 Feb 2014)  -- Nirmal Sheet (EE10B067)

## Write an ARM assembly language program for computing the maximum, average, and minimum value from an array of numbers.

R8 = Maximum number stored in this register
R5 = Minimum number stored in this register
R4,R3 = Quotient, Remainder of the average stored in this register