PES UNIVERSITY

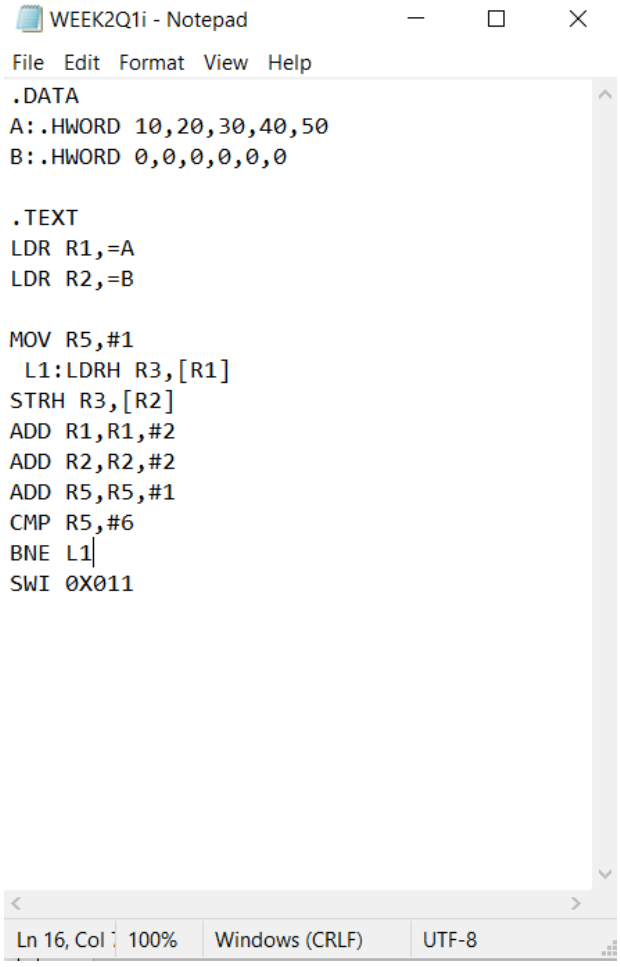
Department of Computer Science & Engineering

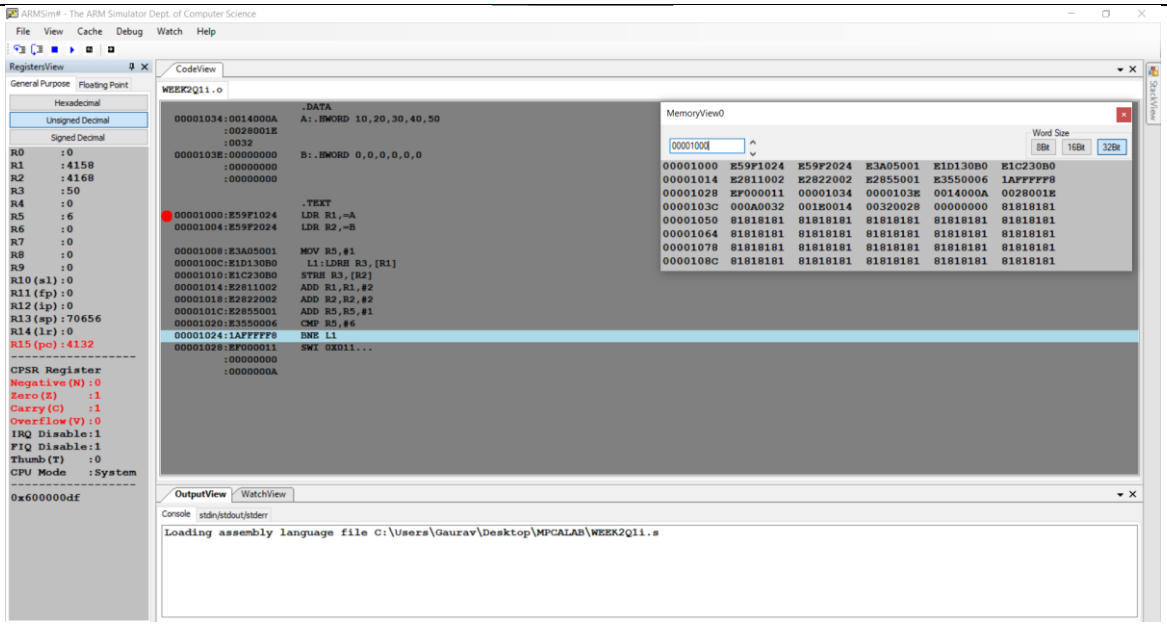
Microprocessor & Computer Architecture

MPCA-Laboratory/Assignment/Hands-on/Project

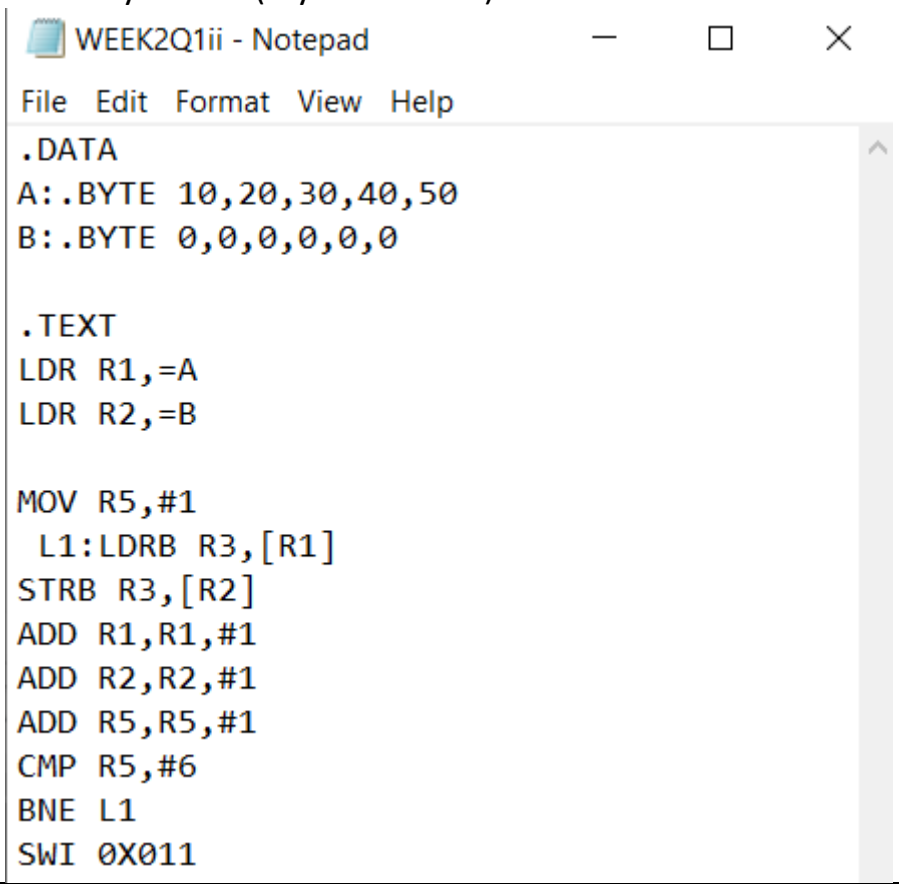
UE20CS252

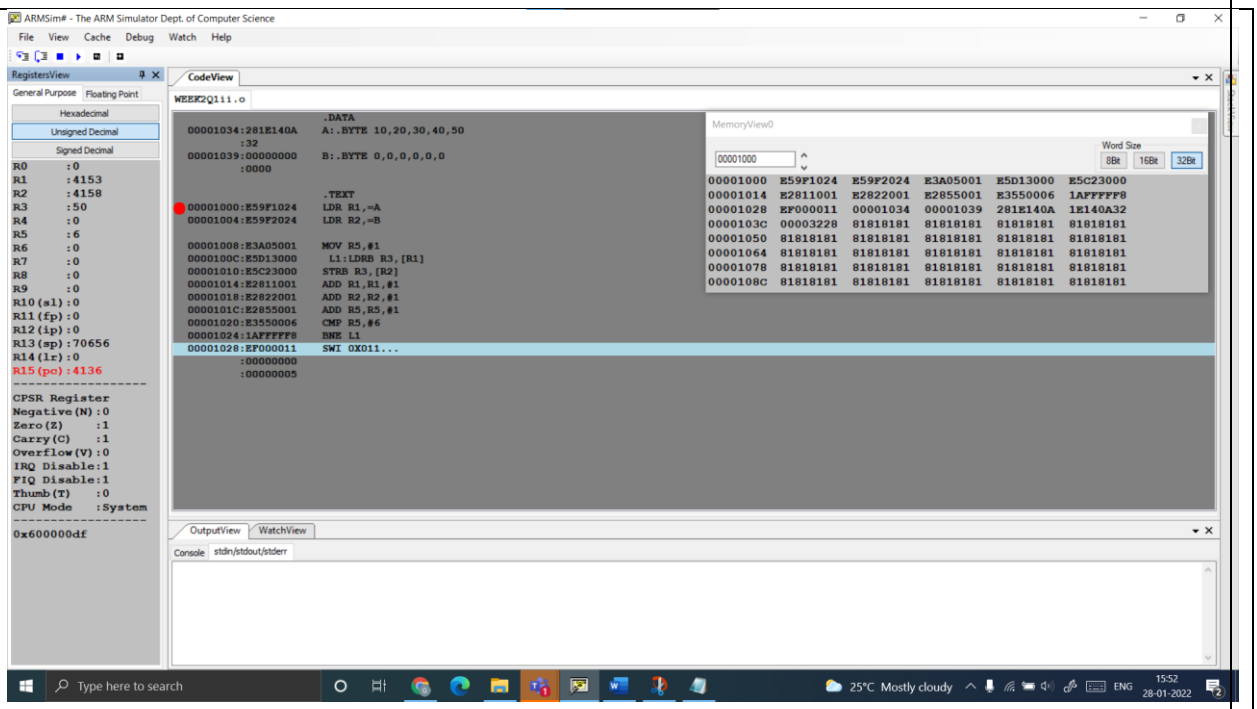
Sl. No	Programs
Week No.2	1. Write a program in ARM7TDMI-ISA to copy a block of N data items from Location A to Location B. a.Use Half word(.Hword directive)





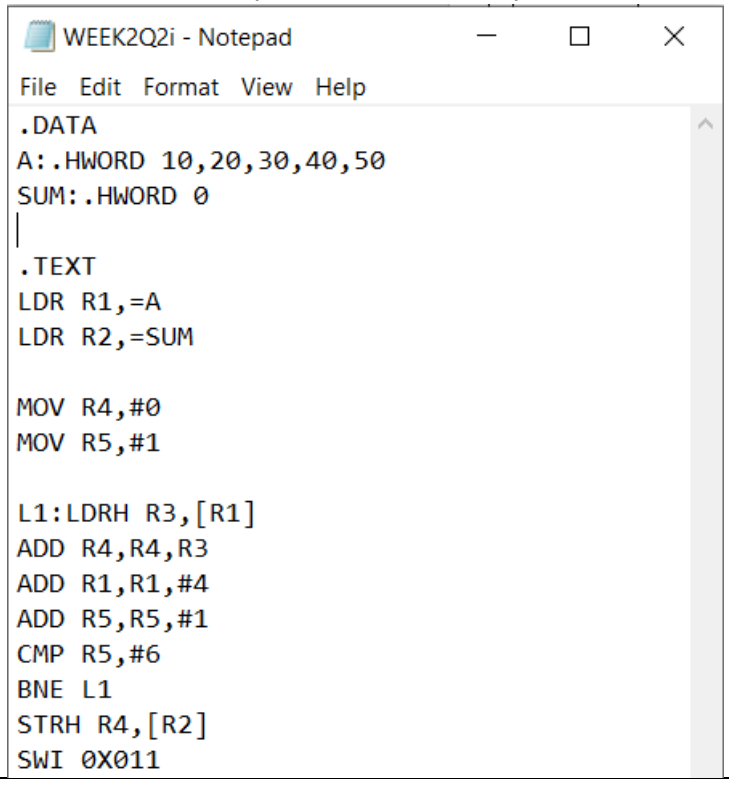
b.Use Byte wise (.Byte directive)

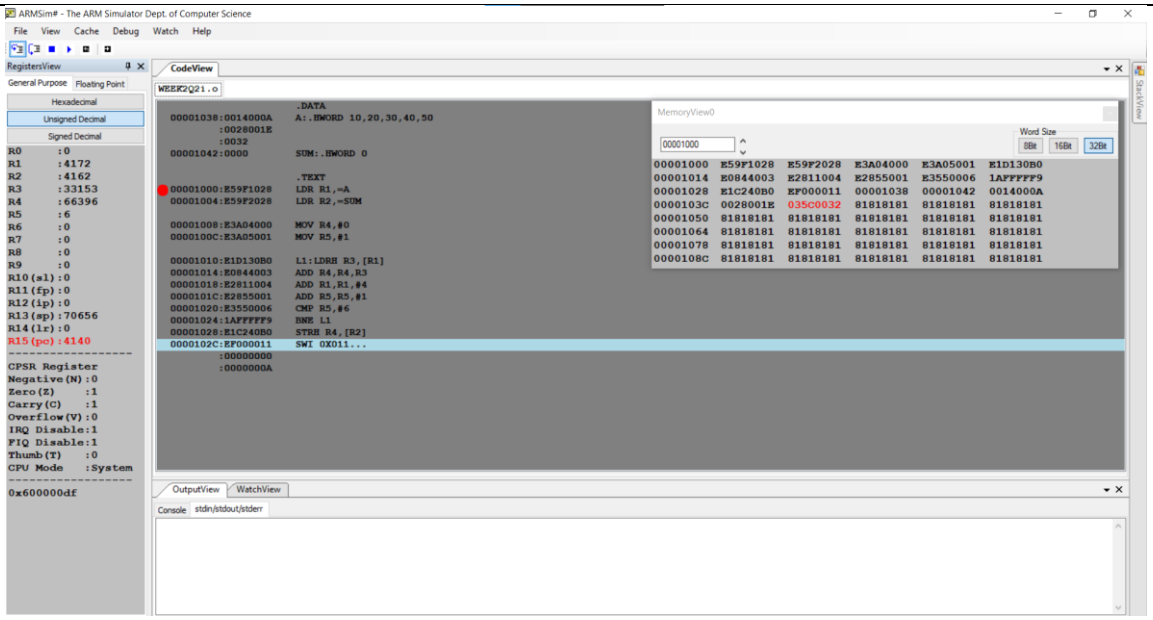




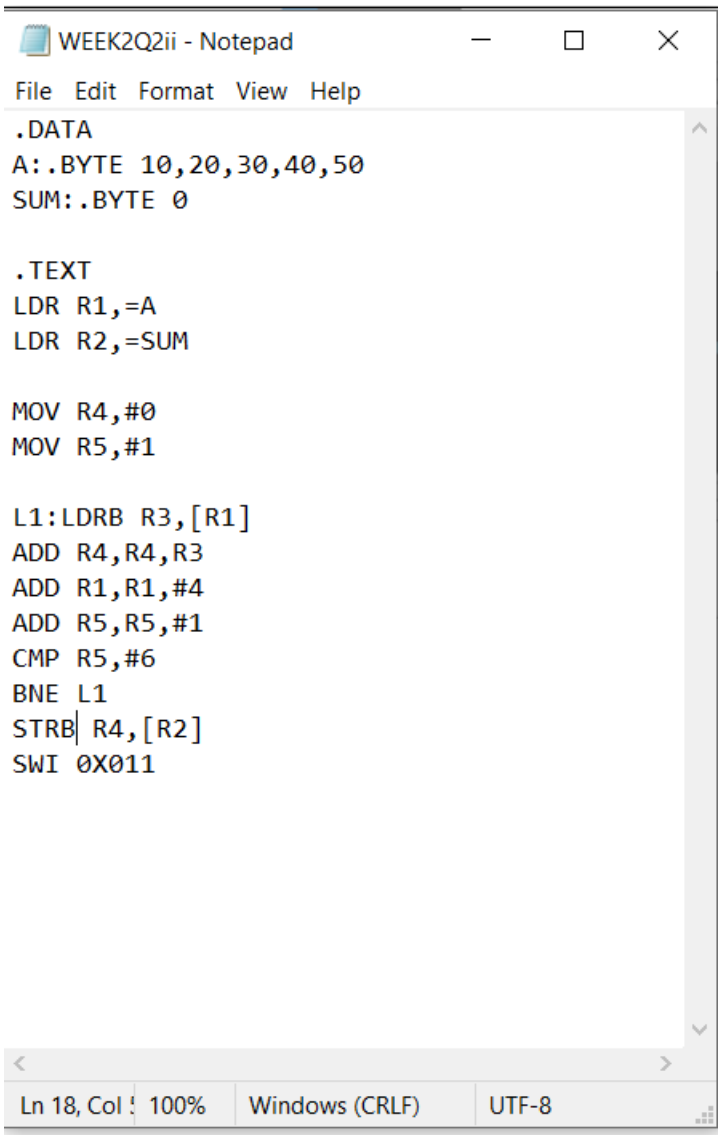
2. Write a program in ARM7TDMI-ISA to find the sum of N data items in the memory. Store the result in the memory location.

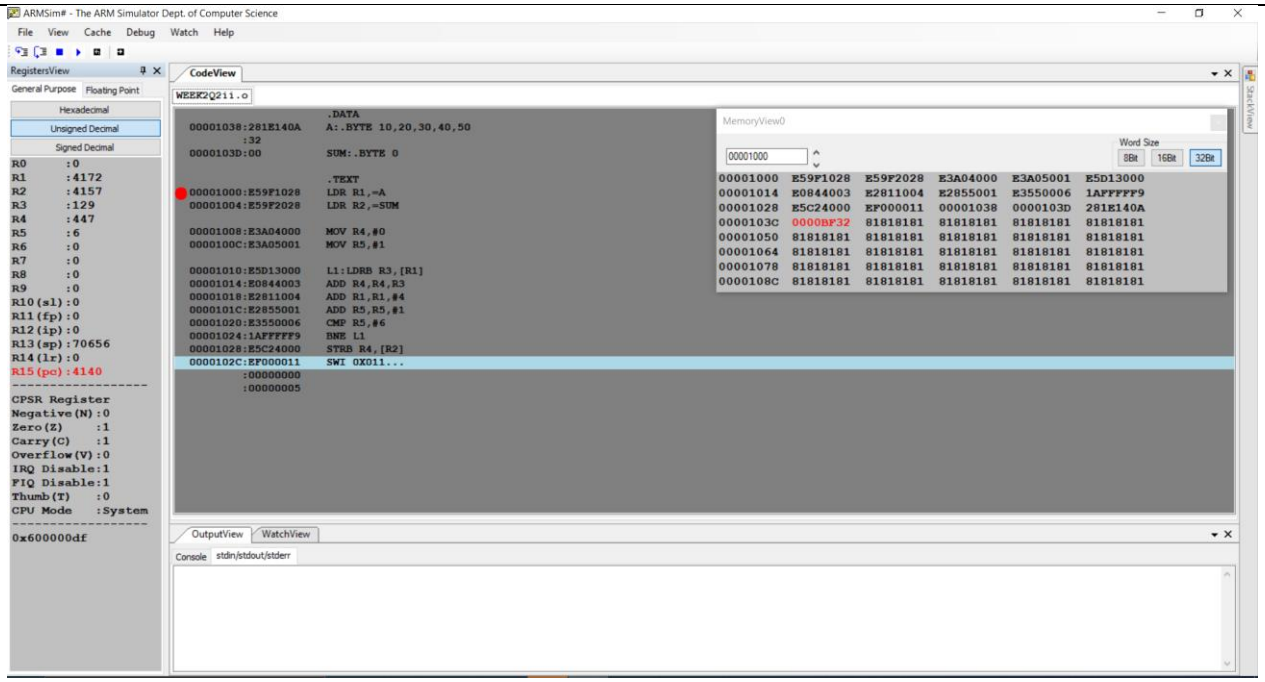
a.Use Half word(.Hword directive)





b. Use Byte wise (.Byte directive)




ARMSim# - The ARM Simulator Dept. of Computer Science
File View Cache Debug Watch Help
RegistersView
General Purpose Floating Point
Hexadecimal
Unsigned Decimal
Signed Decimal
R0 :0
R1 :4172
R2 :4157
R3 :129
R4 :447
R5 :6
R6 :0
R7 :0
R8 :0
R9 :0
R10(sl):0
R11(fp):0
R12(ip):0
R13(sp):70656
R14(lr):0
R15(pc):4140
CPSR Register
Negative(N):0
Zero(Z) :1
Carry(C) :1
Overflow(V):0
IRQ Disable:1
FIQ Disable:1
Thumb(T) :0
CPU Mode :System
0x600000df
CodeView
WEEK2Q2ii.o
.DATA
00001038:281E140A A:.BYTE 10,20,30,40,50
:32
0000103D:00 SUM:.BYTE 0
.TEXT
00001000:E59F1028 LDR R1,=A
00001004:E59F2028 LDR R2,=SUM
00001008:E3A04000 MOV R4,#0
0000100C:E3A05001 MOV R5,#1
00001010:E5D13000 L1:LDRB R3,[R1]
00001014:E0844003 ADD R4,R4,R3
00001018:E2811004 ADD R1,R1,#4
0000101C:E2855001 ADD R5,R5,#1
00001020:E3550006 CMP R5,#6
00001024:1AFFFFF9 BNE L1
00001028:E5C24000 STRB R4,[R2]
0000102C:EF000011 SWI 0X011...
:00000000
:00000005
MemoryView0
00001000
Word Size
8Bit 16Bit 32Bit
00001000 E59F1028 E59F2028 E3A04000 E3A05001 E5D13000
00001014 E0844003 E2811004 E2855001 E3550006 1AFFFFF9
00001028 E5C24000 EF000011 00001038 0000103D 281E140A
0000103C 0000BF32 81818181 81818181 81818181 81818181
00001050 81818181 81818181 81818181 81818181 81818181
00001064 81818181 81818181 81818181 81818181 81818181
00001078 81818181 81818181 81818181 81818181 81818181
0000108C 81818181 81818181 81818181 81818181 81818181
OutputView WatchView
Console stdin/stdout/stderr