

;Lab#7: More LC-3 ML Data Movement Instructions  
;example 1  
;Zane Wonsey  
;11-4-13

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0011 0000 0101 0000 ;load program here
0101 000 000 1 00000 ;clear R0
0101 001 000 1 00000 ;clear R1
0101 010 000 1 00000 ;clear R2
1110 001 0 1010 1100 ;LEA to get base register
0001 010 001 1 00000 ;set R2 == R1

0110 000 001 000000 ;load value at R1 + offset into R0
0111 000 010 010011 ;store from R0 using R2 offset
0101 000 000 1 00000 ;clear R0
0001 001 001 1 00001 ; R1 + 1
0001 010 010 1 11111 ; R2 - 1

0110 000 001 000000 ;load value at R1 + offset into R0
0111 000 010 010011 ;store from R0 using R2 offset
0101 000 000 1 00000 ;clear R0
0001 001 001 1 00001 ; R1 + 1
0001 010 010 1 11111 ; R2 - 1

0110 000 001 000000 ;load value at R1 + offset into R0
0111 000 010 010011 ;store from R0 using R2 offset
0101 000 000 1 00000 ;clear R0
0001 001 001 1 00001 ; R1 + 1
0001 010 010 1 11111 ; R2 - 1

0110 000 001 000000 ;load value at R1 + offset into R0
0111 000 010 010011 ;store from R0 using R2 offset
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;Lab#7: More LC-3 ML Data Movement Instructions  
;example 2  
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0011 0000 0101 0000 ;load program here  
0101 000 000 1 00000 ;clear R0  
0101 001 000 1 00000 ;clear R1  
0101 010 000 1 00000 ;clear R2  
0101 011 000 1 00000 ;clear R3  
  
1010 000 0 1100 1011 ;load 3100 using 3120  
1010 001 0 1100 1011 ;load 3101 using 3121  
1010 010 0 1100 1011 ;load 3102 using 3122  
1010 011 0 1100 1011 ;load 3103 using 3123  
  
1011 011 0 1100 1011 ;store 3103 using 3124  
1011 010 0 1100 1011 ;store 3102 using 3125  
1011 001 0 1100 1011 ;store 3101 using 3126  
1011 000 0 1100 1011 ;store 3100 using 3127

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