

ET 386 L
Lab 9 Index Addressing

1. Create, assemble, make appropriate comments and save the following program:

```
        ORG    $0120        ;base address
        FCB    $01,$03,$08,$02,$07,$06,$05,$04

SUM     ORG    $0130        ;Starting location of storage
        RMB    2            ;reserve memory byte for storage

        ORG    $0100        ;Starting location of program
        CLRA                ;clear both accumulators
        CLRB                ;
        LDAB    #$08        ;Set loop count for loading data, 8 data words to be loaded
        LDX     #$0120      ;load base address into index x
LOOP    ADDA    $00,X        ;no offset added to index register
        INX                ;Next address
        DECB                ;Loop reduction
        BNE     LOOP        ;exit when loop counter is zero
        STAA    SUM         ;Store running total
        END
```

2. Use the MD command (memory display) to observe how the program has added repeatedly and stored the data. What is the sum and where has it been stored?
3. If the previous program has worked properly, then proceed to the following program.

```
        ORG    $0120
        FCC    "HELLO"

        ORG    $0100
        LDX     #$0120
GETC    LDAA    $00,X
        STAA    $60,X
        LDAB    $00,X
        INX
        EORB    #$FF
        BNE     GETC
        END
```

4. Modify the preceding program by writing your own name.

5. New commands: FCC Form Constant Character
 EORB Exclusive Or with ACCB