JACOB S. SANTOS   October 7, 2024

BSCOE 4-1   Dr. Ariel Sison

Assignment – Little Endian

Word B: **89ABCDEF**

(B & 0xFF) << 24
(B & 0xFF) = 1110 1111
            & 1111 1111
            = 1110 1111
            = 0000 0000 0000 0000 0000 0000 1110 1111
<< 24 = **1110 1111** 0000 0000 0000 0000 0000 0000

(B & 0xFF00) << 8
(B & 0xFF00) = 1100 1101 1110 1111
            & 1111 1111 0000 0000
            = 1100 1101 0000 0000
            = 1100 1101 0000 0000
            = 0000 0000 0000 0000 1100 1101 0000 0000

<< 8 = 0000 0000 **1100 1101** 0000 0000 0000 0000

(B >> 8) & 0xFF00

(B >> 8) = 1110 1111 1000 1001 1010 1011 1100 1101

& 0xFF00 = 1010 1011 1100 1101

          & 1111 1111 0000 0000

          = 1010 1011 0000 0000

          = 0000 0000 0000 0000 **1010 1011** 0000 0000

(B >> 24) & 0xFF

(B >> 24) = 1010 1011 1100 1101 1110 1111 1000 1001

& 0xFF = 1000 1001

        1111 1111

      = 1000 1001

      = 0000 0000 0000 0000 0000 0000 **1000 1001**

B = EF000000 | 00CD0000 | 0000AB00 | 00000089

LOWER ORDER B = EFCDAB89