Lab4

Make Binary of you Roll Number first and then use this binary converted Roll number in program by storing this binary in AX register

Write a program in Assembly Language to swap every pair of bits in the AX register

Mechanism to Conduct Lab:

Students and teacher communicate through Skype/Adobe Connect. Students will write code using Notepad or Programmer's Notepad and will share code and screen output.

Nasm: https://vulms.vu.edu.pk/Courses/CS401/Downloads/AssmSoft.zip

DosBOX: http://sourceforge.net/projects/dosbox/files/dosbox/0.74-2/DOSBox0.74-2-win32-installer.exe/download

Programmers Notepad: https://github.com/simonsteele/pn/releases/download/v2.4.2/portable-pn2421440.zip

Solution:

```
[org 0x0100]

        mov ax,1001100110011001b

        mov bx,0

        mov dx,  0                               ; initialization

        mov bx,  ax                              ; get a copy of ax

        and bx,  0011001100110011b  ; bx now has 01, 45, 89, 1213
bits

        rol  bx,  2




                mov dx, ax                    ; get a copy of ax

                and dx, 1100110011001100b  ; dx now has 23,   67,
1011,   1415 bits

                ror  dx,2
```

```asm
        mov cx,  0

        mov  cx,  bx

        or  cx,  dx            ; ORing of bx and dx
will produce desired result


        mov ax,  cx            ; ax now has the
result


 end:   mov ax, 4c00h

    int 21h
```