- ☐ **Take a single digit number (N) as user input and then print in this sequence: 1, 2, … , N-1, N Sample: Enter a number = 7 Output: 1 2 3 4 5 6 7**

```
.MODEL SMALL
.STACK 100H

.DATA
   NUM1 DB 1
   NUM2 DB ?

   MSG1 DB 'Enter a number: $'
   MSG2 DB 'Output: $'

   NEWLINE DB 13, 10, '$'

.CODE
MAIN PROC
   MOV AX, @DATA
   MOV DS, AX

   LEA DX, MSG1
   MOV AH, 9
   INT 21H

   MOV AH, 1
   INT 21H
   SUB AL, 48
   MOV NUM2, AL


    ; print newline
   LEA DX, NEWLINE
   MOV AH, 9
   INT 21H

   LEA DX, MSG2
   MOV AH, 9
   INT 21H

PRINT_LOOP:
   MOV DL, NUM1
   ADD DL, 48
   MOV AH, 2
   INT 21H

   MOV DL, ' '
   MOV AH, 2
   INT 21H
```

```
    INC NUM1
    MOV AL, NUM1
    CMP AL, NUM2
    JLE PRINT_LOOP



    MOV AH, 4CH
    INT 21H
MAIN ENDP
END MAIN
```

- ☐ **Take a single digit number as user input and then print the number in this sequence: Enter a number = 7 Output: 7 6 5 4 3 2 1 0**

```
.MODEL SMALL
.STACK 100H

.DATA
    NUM1 DB ?       ; Store the starting value (entered number)
         ; Store the entered number

    MSG1 DB 'Enter a number: $'
    MSG2 DB 'Output: $'

    NEWLINE DB 13, 10, '$'

.CODE
MAIN PROC
    MOV AX, @DATA
    MOV DS, AX

    LEA DX, MSG1
    MOV AH, 9
    INT 21H

    MOV AH, 1
    INT 21H
    SUB AL, 48
    MOV NUM1, AL

    ; print newline
    LEA DX, NEWLINE
    MOV AH, 9
    INT 21H

    LEA DX, MSG2
```

```
    MOV AH, 9
    INT 21H



PRINT_LOOP:
    MOV DL, NUM1
    ADD DL, 48
    MOV AH, 2
    INT 21H

    MOV DL, ' '
    MOV AH, 2
    INT 21H

    DEC NUM1
    MOV AL, NUM1
    CMP AL, 0
    JG PRINT_LOOP

    MOV AH, 4CH
    INT 21H
MAIN ENDP
END MAIN
```

;PROCEDURE CONCEPT

```
.MODEL SMALL
.STACK 100H
.DATA
  STR DB "I AM ASHAB,TODAY FUCKING LAB FINAL$"
.CODE

MAIN PROC
    MOV AX,@DATA
    MOV DS,AX

    CALL USER

    MOV AH,2
    MOV DL,10
    INT 21H
    MOV DL,13
    INT 21H

    MOV DX,OFFSET STR

    MOV AH,9
    INT 21H

    MOV AH,4CH
    INT 21H


    MAIN ENDP

    USER PROC
    MOV DX,OFFSET STR
    MOV AH,9
    INT 21H

    RET

    USER ENDP
```