1. Demo.asm – "Hello world!"
    a. Display single characters, numbers, and symbols
    b. Display space
    c. Display new line
    d. Change character foreground and background color
    e. Display blinking characters
    f. Display text using variables

2. Exer1.asm – display:

    abcdefghijklmnopqrstuvwxyz
    A B C D E F G H I J K L M N O P Q R S T U V W X Y Z

3. Exer2.asm – display using single characters:

    First Name Middle Name Last Name
    Bachelor of Science in Computer Science 2nd Year
    College of Computer Studies
    Cebu Institute of Technology - University

4. Exer3.asm – display:

    0 1 2 3 4 5 6 7 8 9

    ! * # $ % ^ & * ( )

    - _ + = { } [ ] < ?

    ; ANY 20 SPECIAL SYMBOLS WITH SPACE IN BETWEEN

5. Exer4.asm – display with different foreground and background colors

    College

    of

    Computer

    Studies

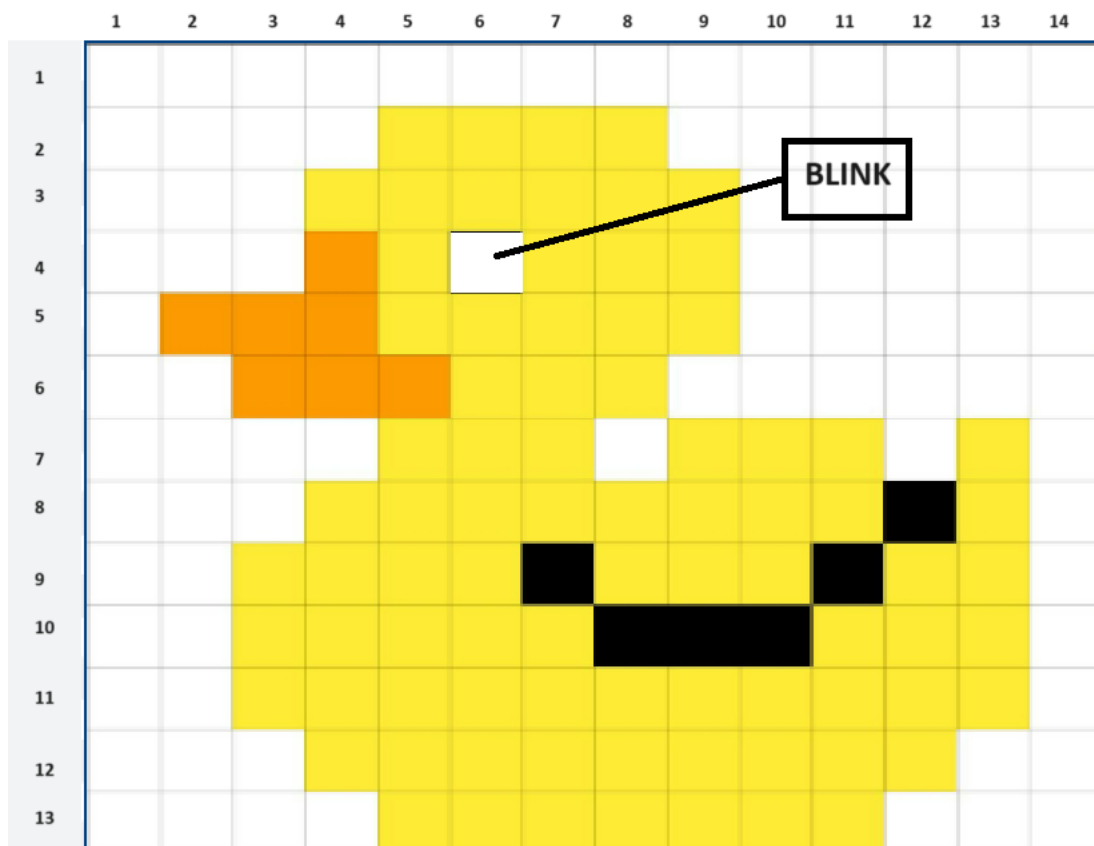6. Exer5.asm – display colored patterns (big cross) using just spaces

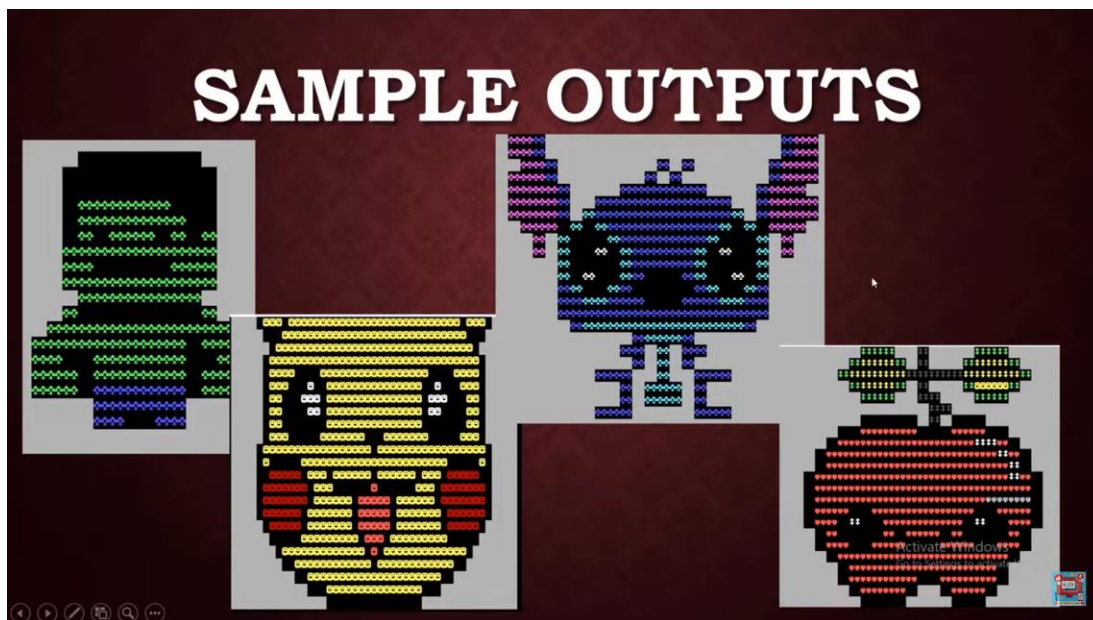Forming large characters – Red Cross with blue background – 6 rows X 8 columns

7. Exer6.asm - display emojis and blinking characters (blinking red heart)

8. Exer7.asm – create your own multicolored character with blinking parts

9. Exer8.asm – Display text using string variables (4 string variables)

    First Name Middle Name Last Name
    Bachelor of Science in Computer Science 2nd Year
    College of Computer Studies
    Cebu Institute of Technology - University

10. Exer9.asm – Create AUGUST 2024 Calendar using ASCII characters, with borders

SAMPLE CODE:

Demo.asm

```
; Filename: Demo.asm
; Displaying single characters, numbers, and symbols
; YOUR FULL NAME HERE
; Date: August
.model small
.code
.stack 100
start:
int 27h  ; terminate
end start  ; end program
```

```
; Exercise No. 1
; Displaying single characters
; YOUR FULL NAME HERE
; Experiment: replace 41h with different ASCII numbers

.model small
.code
.stack 100
start:
        mov ah,02h
        mov cl,41h ; 41h is capital A
        mov dl,cl
        int 21h

int 27h ; terminate
end start ; end program
```

; ah = read character from standard input

; 02h = write character to standard output

; cl = cursor bottom line

; dl = character to write/print/display

; int 21h = read character in standard input

; this is for displaying space

        mov ah,02h

        mov cl,20h ; 20h is space

        mov dl,cl

        int 21h

; this is for displaying new line

        mov ah,02h

        mov cl,0Ah ; 0Ah is new line

        mov dl,cl

        int 21h

  ; this is for changing foreground and background colors

  mov ah,09h

  mov bl,3Eh ; 3 = aqua(background), E = light yellow(foreground)

  mov cx,1 ; number of characters to apply color

  int 10h

  ; for 1st row blue color, 8 spaces

  ; this is for changing foreground and background colors

  mov ah,09h

```
    mov bl,11h ; 1 = blue(background), 1 = blue(foreground)

    mov cx,8 ; number of characters to apply color

    int 10h


    mov ah,09h

    mov bl,84h ;8=blink, 4=red foreground

    mov cx,1

    int 10h


    mov ah,2

    mov dl,03h ; 03=heart

    int 21h


; multi-line comment

COMMENT @

Color Guide:

    6 = yellow

    E = light yellow

    7 = white

    0 = black


Symbol Guide:

    20 = space

@
```

```
; Exercise No. 8

; Displaying strings of text

; Name: Roden J. Ugang
```

```
; Date: August 5, 2024
; Experiment: Display strings of text



.model small
.data
  msg1 db 'Hello$'
  msg2 db 'World!$'


.code
.startup

main1:
  ; this displays 'Hello'
  mov ah,9
  mov dx,offset msg1
  int 21h


comment @
  ; this is for displaying space
        mov ah,02h
        mov cl,20h ; 20h is space
        mov dl,cl
        int 21h
@

        ; this is for displaying new line
        mov ah,02h
        mov cl,0Ah ; 0Ah is new line
```

```
        mov dl,cl

        int 21h


  ; this displays 'World!'

  mov ah,9

  mov dx,offset msg2

  int 21h


.exit

end
```