**28th February, 2019**

**PROGRAMMING WITH ASSEMBLY LANGUAGE**

**Assignment 2**

**Projector**

**GROUP MEMBERS**

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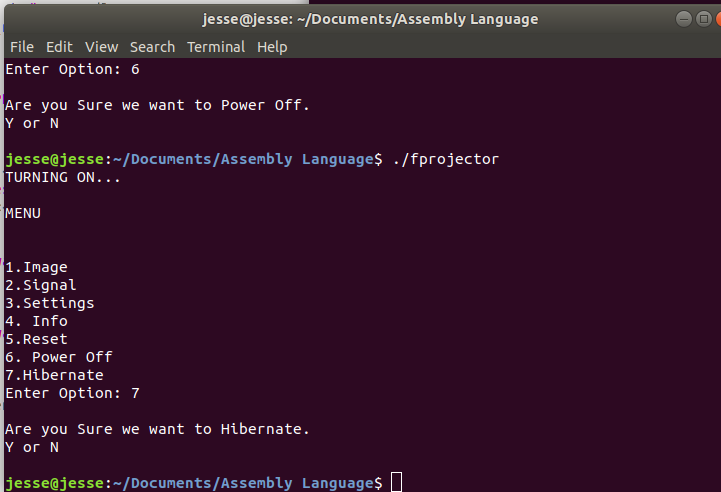
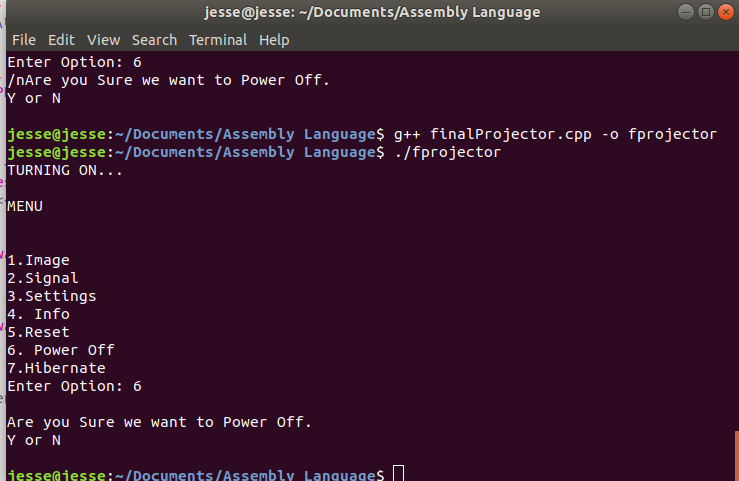
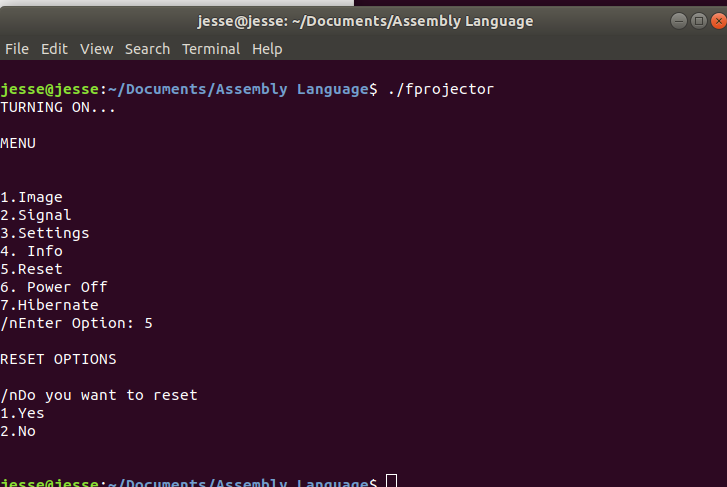
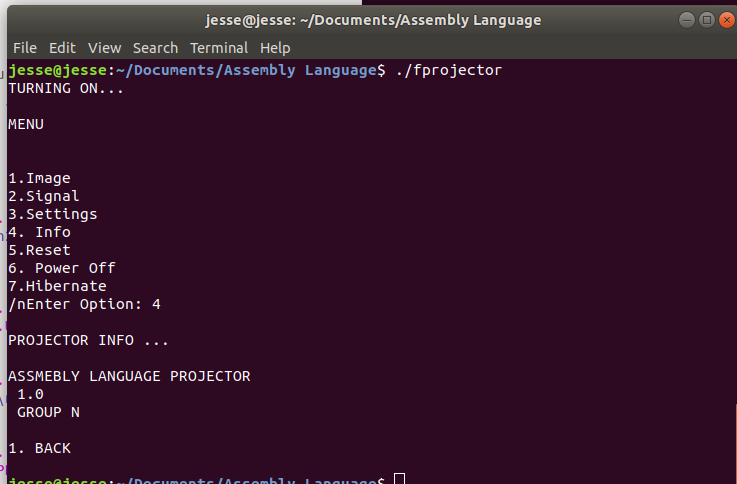
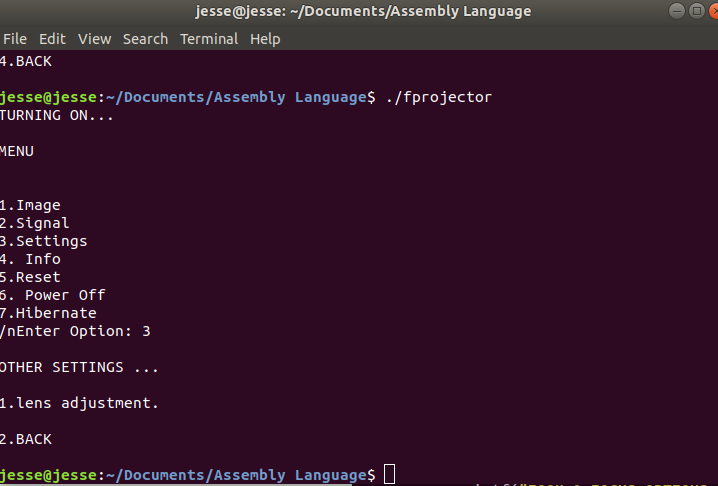
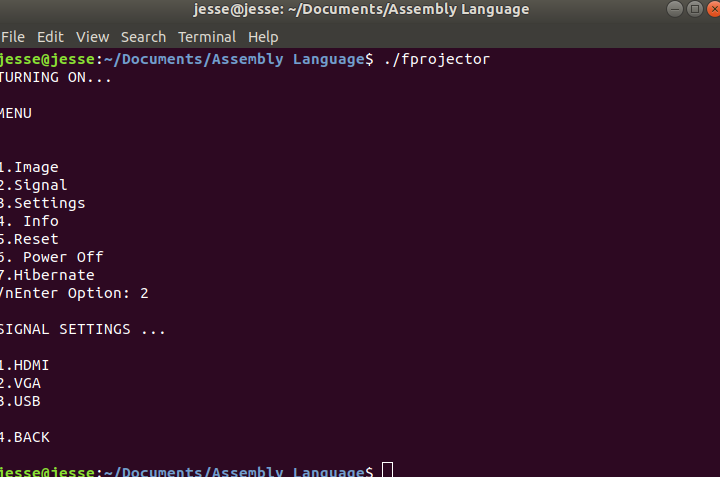
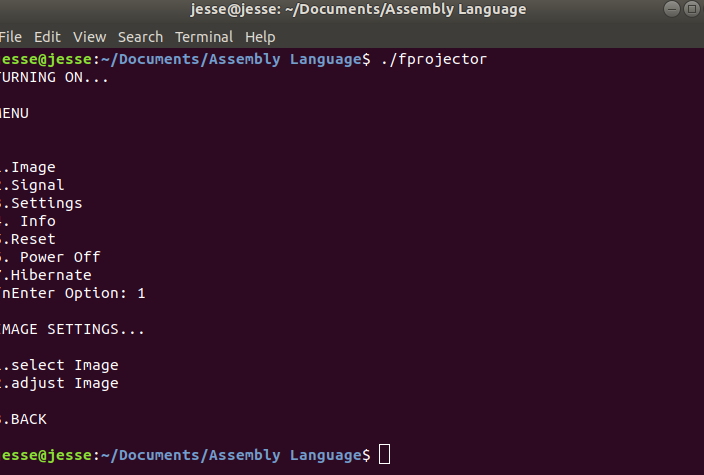
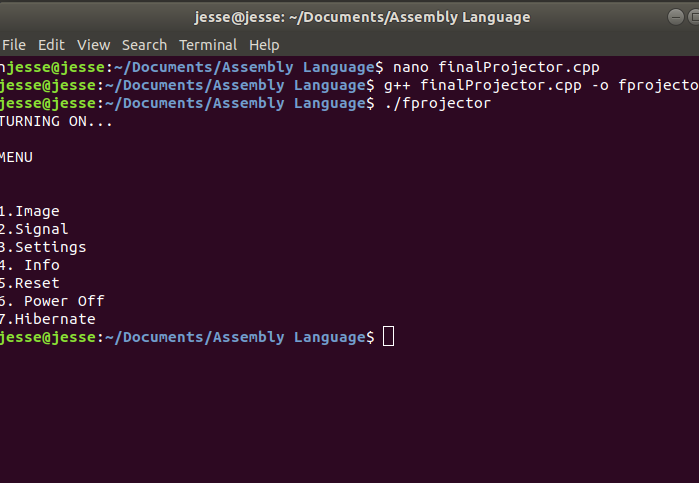
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**SCREENSHOTS**



**CODE**

section .data

proj\_name db "Hp Project Series A3d"

lenproj\_name equ $-proj\_name

turn\_on db "1. Turn\_on"

lenTurnOn equ $-turn\_on

userMsg db "Enter Option: "

lenUserMsg equ $-userMsg

dispMsg db 'You have entered: '

lenDispMsg equ $-dispMsg

oning db 'Turning On...'

lenOning equ $-oning

onMsg db 'Welcome, User...'

lenOnMsg equ $-onMsg

view\_mode db "Welcome -- MENU"

lenview\_mode equ $-view\_mode

cabel\_source db "1. Source"

len\_cable\_source equ $-cabel\_source

;source values

Hdmi\_mode db "---SOURCE SETTINGS---"

lenHdmi equ $-Hdmi\_mode

;source value ends here

hdmi\_thesource db "1. HDMI"

lenhdmi\_thesource equ $-hdmi\_thesource

vga\_thesource db "2. VGA"

lenvga\_thesource equ $-vga\_thesource

usb\_thesource db "3. USB"

lenusb\_thesource equ $-usb\_thesource

settings db "2. Settings"

lensettings equ $-settings

;settings values starts here

setting\_menu db "---SETTINGS MENU---"

lensetting\_menu equ $-setting\_menu

;settings values ends here

adjust\_image db "1. Adjust Image"

lenadjust\_image equ $-adjust\_image

change\_resolution db "2. Change Resolution"

lenchange\_resolution equ $-change\_resolution

info db "3. Info"

leninfo equ $-info

;info values starts here

info\_menu db "---PROJRCTOR INFORMATION---"

leninfo\_menu equ $-info\_menu

;info values ends here

reset db "4. Reset"

lenReset equ $-reset

;reset values starts here

reset\_menu db "---RESET MENU---"

lenreset\_menu equ $-reset\_menu

;reset values ends here

powerOff db "5. Power Off"

lenpowerOff equ $-powerOff

;poweroff mennu starts here

poweroff\_menu db "---POWER OFF MENU---"

lenpoweroff\_menu equ $-poweroff\_menu

;poweroff menu ends here

hibernate db "6. Hibernate"

lenhibernate equ $-hibernate

;hibernate menu starts here

hibernate\_menu db "---HIBERNATE MENU---"

lenhibernate\_menu equ $-hibernate\_menu

;hibernate menu ends here

projector\_about db "Assembly language Project 1"

lenprojector\_about equ $-projector\_about

groupname db "Group M"

lengroupname equ $-groupname

sure\_poweroff db "Are you sure you want to Power Off(yes or no)?"

lensure\_poweroff equ $-sure\_poweroff

sure\_reset db "Are you sure you want to Reset(yes or no)?"

lensure\_reset equ $-sure\_reset

sure\_hibernate db "Are you sure you want to hibernate(yes or no)?"

lensure\_hibernate equ $-sure\_hibernate

section .bss

num resb 5

section .text

global \_start

\_start:

; projector name text declaration

mov eax,4

mov ebx,1

mov ecx, proj\_name

mov edx,lenproj\_name

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;Turn on text

mov eax,4

mov ebx,1

mov ecx,turn\_on

mov edx, lenTurnOn

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

;Enter Number Text declaration

mov eax,4

mov ebx,1

mov ecx, userMsg

mov edx, lenUserMsg

int 80h

mov eax,3

mov ebx, 2

mov ecx,num

mov edx,5

int 0x80

; dislay message text declaration

mov eax,4

mov ebx, 1

mov ecx,dispMsg

mov edx, lenDispMsg

int 80h

mov eax,4

mov ebx, 1

mov ecx, num

mov edx, 5

;checking if user input is 1

mov bl, [ecx]

cmp bl,'1'

JE L7

int 80h

;end declarations

mov eax,1

mov ebx,0

int 80h

L7:

;Turning on progress message

mov eax,4

mov ebx,1

mov ecx, oning

mov edx, lenOning

int 80h

mov eax,3

mov ebx, 2

mov ecx,num

mov edx,5

int 0x80

;welcome user message

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx, 1

mov ecx,onMsg

mov edx, lenOnMsg

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;choose view mode

mov eax,4

mov ebx,1

mov ecx, view\_mode

mov edx,lenview\_mode

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;other HP projector options

mov eax,4

mov ebx,1

mov ecx,cabel\_source

mov edx,len\_cable\_source

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

mov eax,4

mov ebx,1

mov ecx,settings

mov edx, lensettings

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

mov eax,4

mov ebx,1

mov ecx,info

mov edx, leninfo

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

mov eax,4

mov ebx,1

mov ecx,reset

mov edx, lenReset

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

mov eax,4

mov ebx,1

mov ecx,powerOff

mov edx, lenpowerOff

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

mov eax,4

mov ebx,1

mov ecx,hibernate

mov edx, lenhibernate

int 80h

mov eax,4

mov ebx,1

mov ecx, num

mov edx,5

int 0x80

;Enter Menu Option declaration

mov eax,4

mov ebx,1

mov ecx, userMsg

mov edx, lenUserMsg

int 80h

mov eax,3

mov ebx, 2

mov ecx,num

mov edx,5

int 0x80

;check if user input is 1 then open source

mov bl, [ecx]

cmp bl,'1'

JE source

int 80h

;chek if user is 2 then open setting

mov bl, [ecx]

cmp bl,'2'

JE settings\_label

int 80h

;check if user is 3 then open info

mov bl, [ecx]

cmp bl,'3'

JE info\_label

int 80h

;check if user is 4 then open reset

mov bl, [ecx]

cmp bl,'4'

JE reset\_label

int 80h

;check if user is 5 then open Power Off

mov bl, [ecx]

cmp bl,'5'

JE powerOff\_label

int 80h

;check if user is 6 then open hibernate

mov bl, [ecx]

cmp bl,'6'

JE hibernate\_label

int 80h

;LE ends here

;source starts here

source:

mov eax,4

mov ebx,1

mov ecx, Hdmi\_mode

mov edx,lenHdmi

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, hdmi\_thesource

mov edx,lenhdmi\_thesource

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, vga\_thesource

mov edx,lenvga\_thesource

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, usb\_thesource

mov edx,lenusb\_thesource

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;end declarations

mov eax,1

mov ebx,0

int 80h

;source ends here

;settins starts here

settings\_label:

mov eax,4

mov ebx,1

mov ecx, setting\_menu

mov edx,lensetting\_menu

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, adjust\_image

mov edx,lenadjust\_image

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, change\_resolution

mov edx,lenchange\_resolution

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;end declarations

mov eax,1

mov ebx,0

int 80h

;settings ends here

;info starts here

info\_label:

mov eax,4

mov ebx,1

mov ecx, info\_menu

mov edx,leninfo\_menu

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, projector\_about

mov edx,lenprojector\_about

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, groupname

mov edx,lengroupname

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;end declarations

mov eax,1

mov ebx,0

int 80h

;info ends here

;reset starts here

reset\_label:

mov eax,4

mov ebx,1

mov ecx, reset\_menu

mov edx,lenreset\_menu

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, sure\_reset

mov edx,lensure\_reset

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;Enter reset option

mov eax,4

mov ebx,1

mov ecx, userMsg

mov edx, lenUserMsg

int 80h

mov eax,3

mov ebx, 2

mov ecx,num

mov edx,5

int 0x80

;end declarations

mov eax,1

mov ebx,0

int 80h

;reset ends here

;power off starts here

powerOff\_label:

mov eax,4

mov ebx,1

mov ecx, poweroff\_menu

mov edx,lenpoweroff\_menu

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, sure\_poweroff

mov edx,lensure\_poweroff

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;Enter poweroff option

mov eax,4

mov ebx,1

mov ecx, userMsg

mov edx, lenUserMsg

int 80h

mov eax,3

mov ebx, 2

mov ecx,num

mov edx,5

int 0x80

;end declarations

mov eax,1

mov ebx,0

int 80h

;power off ends here

;hibernate starts here

hibernate\_label:

mov eax,4

mov ebx,1

mov ecx, hibernate\_menu

mov edx,lenhibernate\_menu

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

mov eax,4

mov ebx,1

mov ecx, sure\_hibernate

mov edx,lensure\_hibernate

int 80h

mov eax,3

mov ebx,2

mov ecx, num

mov edx, 5

int 80h

;Enter hibernate option

mov eax,4

mov ebx,1

mov ecx, userMsg

mov edx, lenUserMsg

int 80h

mov eax,3

mov ebx, 2

mov ecx,num

mov edx,5

int 0x80

;end declarations

mov eax,1

mov ebx,0

int 80h

;hibernate ends here