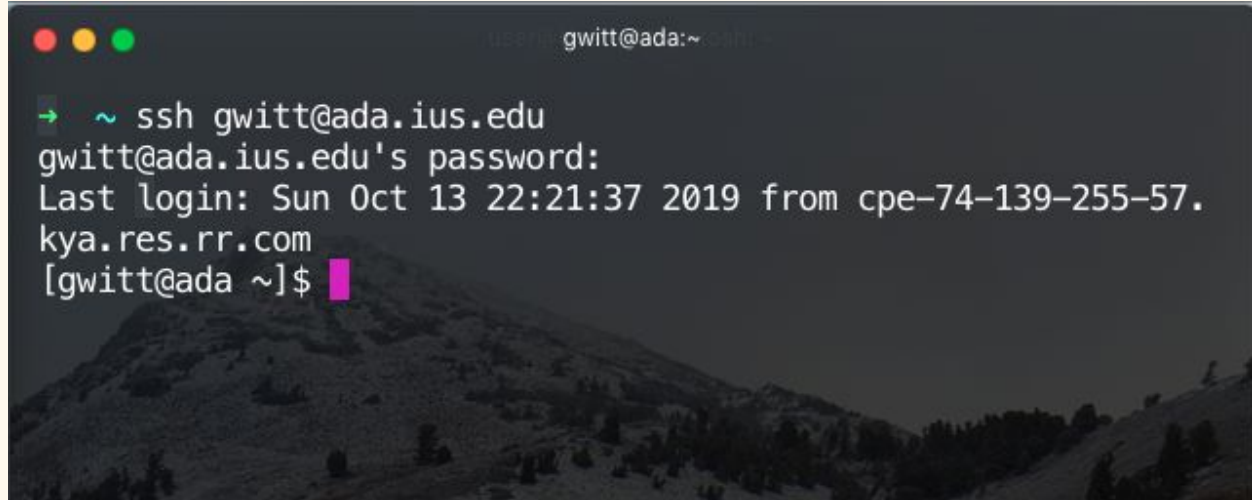


P-06

Login to ADA Via SSH

A terminal window with a dark background and a mountain landscape wallpaper. The window title is "terminal gwitt@ada:~ ssh". The terminal shows the command "ssh gwitt@ada.ius.edu" being entered, followed by the password prompt, the last login information, and the successful login prompt.

```
→ ~ ssh gwitt@ada.ius.edu
gwitt@ada.ius.edu's password:
Last login: Sun Oct 13 22:21:37 2019 from cpe-74-139-255-57.
kya.res.rr.com
[gwitt@ada ~]$
```

Code Execution With VIM

```
gwitt@ada:~/P06
extern printf
extern scanf
extern strlen

SECTION .data

fmt: db "Argument to be read is: %s", 10, 0
fmt2: db "%s", 0
fmt3: db "Length of Argument: %d", 10, 0
strlength dd 0

;.bss Section
SECTION .bss
input resw 4
global main

;Text section
SECTION .text

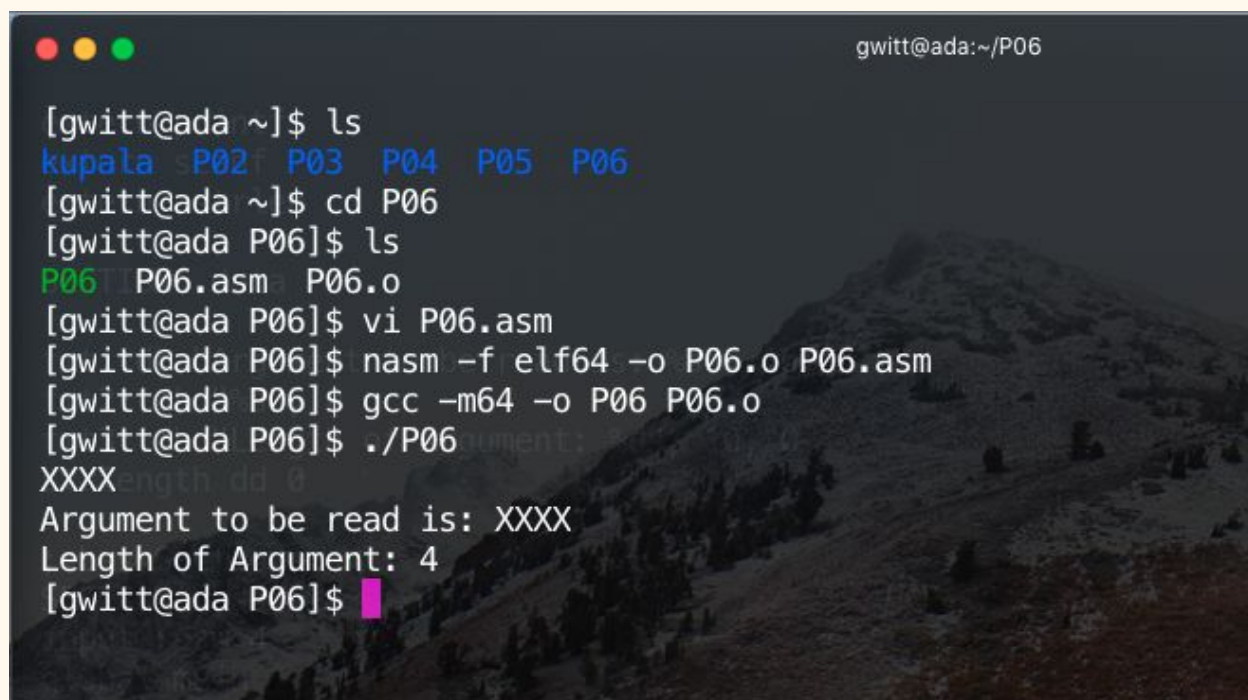
main:
    mov rdi, fmt2 ;move the value for the %s to capture the string
    mov rsi, input ;take in command line arguments
    mov al, 0
    call scanf ;Use Scanf
    mov rdi, fmt ;Display the argument message
    mov rsi, input ;move arguments to rsi
    mov rax, 0

    call printf ;print the results thus far
    mov rdi, input ;move input into rdi register

    ;string length manipulations
    call strlen
    mov [strlength], rax ;makes the value of rax (0) into strlength
    mov rdi, fmt3 ;display message for the length
    mov rsi, [strlength] ;dereference for the value
    mov rax, 0
    call printf ;display the command line results
    mov rax, 60
    xor rdi, rdi
    syscall ;exit program

~
~
~
~
"P06.nasm" 41L, 1045C 1,1 All
```

Compiled Code via Commands Listed Terminated SSH Connection

A terminal window with a dark background and a mountain landscape. The window title is 'gwitt@ada:~/P06'. The terminal shows a series of commands and their outputs. The commands are: 'ls', 'cd P06', 'ls', 'vi P06.asm', 'nasm -f elf64 -o P06.o P06.asm', 'gcc -m64 -o P06 P06.o', and './P06'. The outputs are: 'kupala P02 P03 P04 P05 P06', 'P06 P06.asm P06.o', and 'XXXXlength dd 0'. The terminal also shows the message 'Argument to be read is: XXXX' and 'Length of Argument: 4'. The prompt is '[gwitt@ada P06]\$' followed by a red cursor.

```
gwitt@ada:~/P06

[gwitt@ada ~]$ ls
kupala P02 P03 P04 P05 P06
[gwitt@ada ~]$ cd P06
[gwitt@ada P06]$ ls
P06 P06.asm P06.o
[gwitt@ada P06]$ vi P06.asm
[gwitt@ada P06]$ nasm -f elf64 -o P06.o P06.asm
[gwitt@ada P06]$ gcc -m64 -o P06 P06.o
[gwitt@ada P06]$ ./P06
XXXXlength dd 0
Argument to be read is: XXXX
Length of Argument: 4
[gwitt@ada P06]$
```