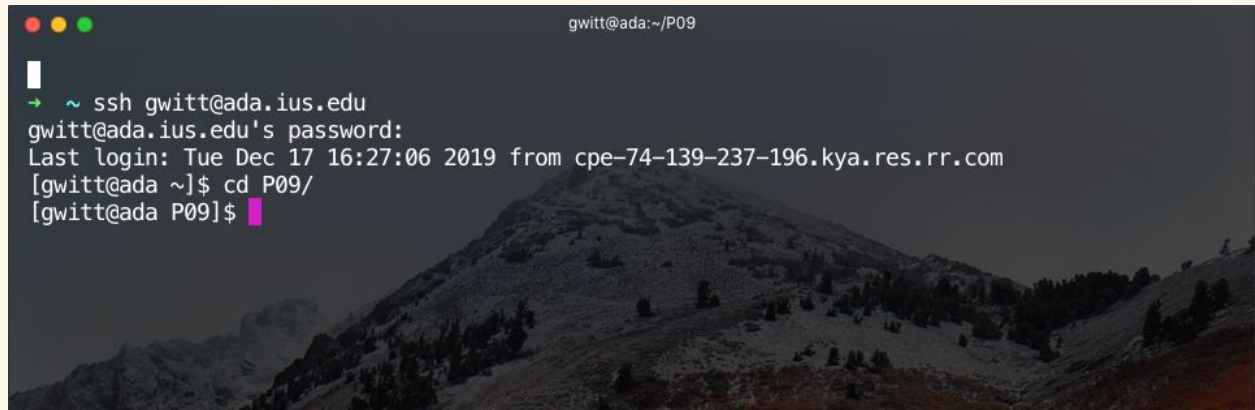


P-09

Login to ADA Via SSH

A terminal window with a dark background and a mountain landscape wallpaper. The window title is 'gwitt@ada:~/P09'. The terminal shows the following commands and output:

```
→ ~ ssh gwitt@ada.ius.edu
gwitt@ada.ius.edu's password:
Last login: Tue Dec 17 16:27:06 2019 from cpe-74-139-237-196.kya.res.rr.com
[gwitt@ada ~]$ cd P09/
[gwitt@ada P09]$
```

Code Execution With VIM

```

;DEPENDENCIES:
; ensure include file is in directory of the project
;
; BUILD:
; nasm -f elf64 p09.asm
; gcc -m64 -o p09 p09.o
;
; EXAMPLE OUTPUT:
;
extern fputs, fopen, fclose

SECTION .data
;Create File
filename: db "myfile.txt", 0
fileopen: db "w",0
;DECLARE SPECIFIED TYPES:
text db "0x55,0x56,0x57"
text2 dw "0x1234"
text3 dd "0x12345678"
text4 dq "0x123456789abcdef0"
text5 dq "1.234567e20"

%macro write 1
;
;
mov rdi, %1
mov rsi, r14
;
; call to write to files:
call fputs
%endmacro

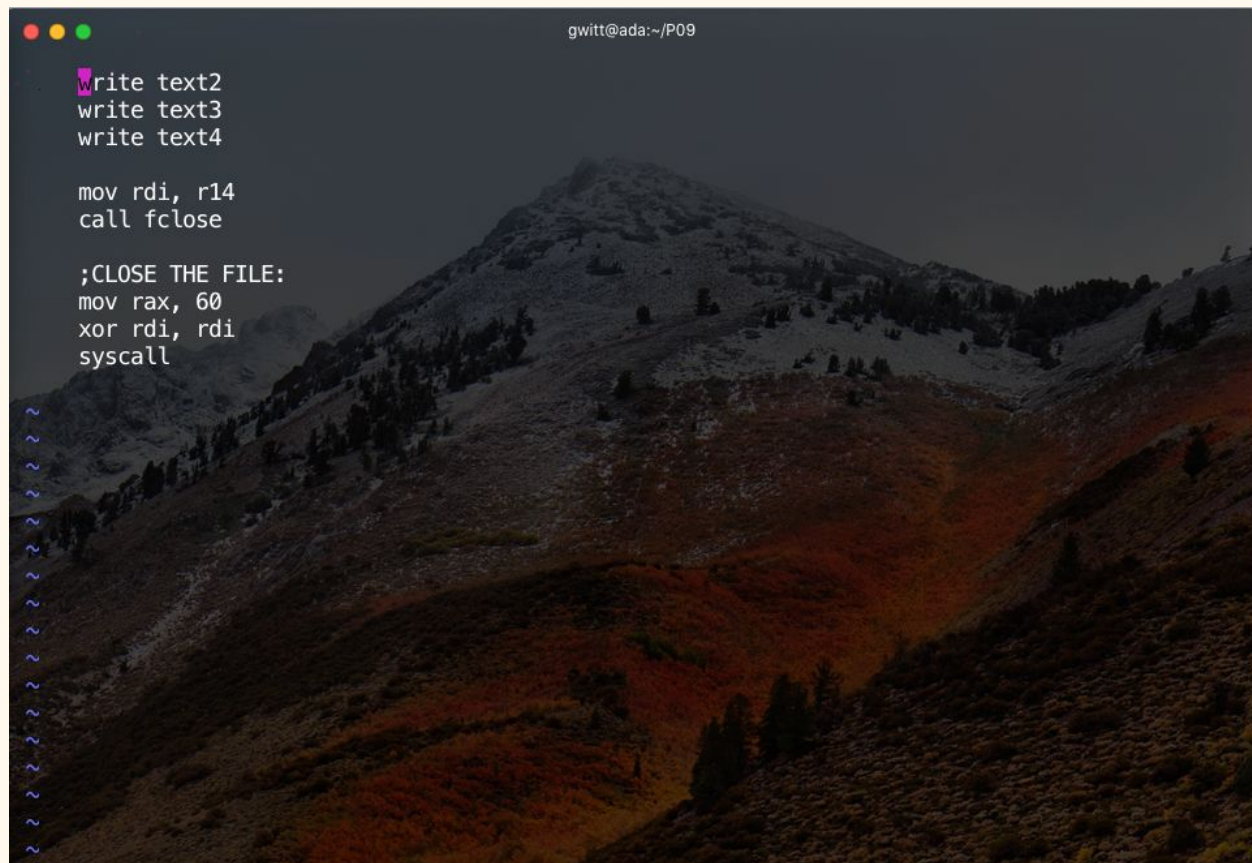
global main
SECTION .text
main:

; MAIN CODE for the Program
;OPEN FILE:
mov rdi, filename
mov rsi, fileopen
call fopen
mov r14, rax

;WRITE TO FILE:
write text
write text2
write text3

```

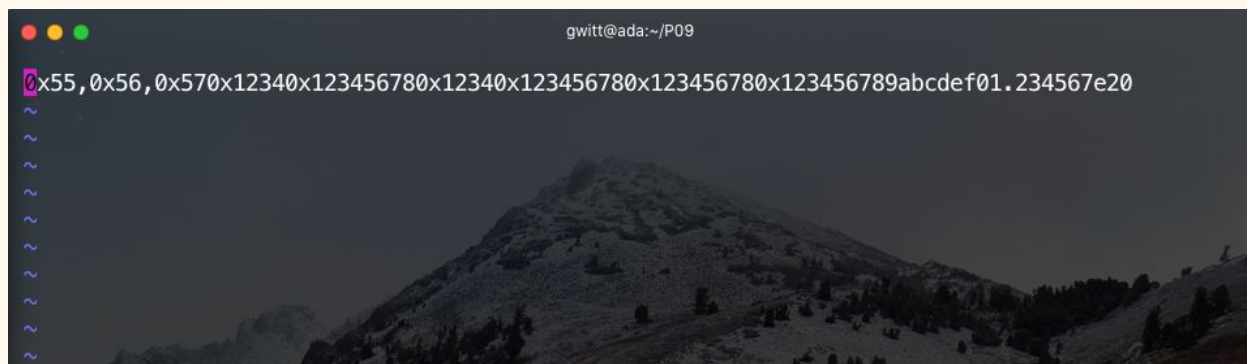
```
gwttt@ada:~/P09  
write text2  
write text3  
write text4  
  
mov rdi, r14  
call fclose  
  
;CLOSE THE FILE:  
mov rax, 60  
xor rdi, rdi  
syscall
```



Compiled Code via Commands Listed Terminated SSH Connection

```
gwtitt@ada:~/P09
[gwtitt@ada P09]$ nasm -f elf64 p09.asm
[gwtitt@ada P09]$ gcc -m64 -o p09 p09.o
[gwtitt@ada P09]$ ./p09
[gwtitt@ada P09]$ ls
myfile.txt  p09      p09.asm  p09.o
[gwtitt@ada P09]$
```

Examine results from the program in myfile.txt



```
gwitt@ada:~/P09
0x55,0x56,0x570x12340x123456780x12340x123456780x123456780x123456789abcdef01.234567e20
~
~
~
~
~
~
~
~
~
```

A terminal window with a dark background and a mountain landscape wallpaper. The window title bar shows three colored buttons (red, yellow, green) and the text 'gwitt@ada:~/P09'. The terminal output displays a long string of hexadecimal and alphanumeric characters: '0x55,0x56,0x570x12340x123456780x12340x123456780x123456780x123456789abcdef01.234567e20'. Below this line, there are several tilde characters (~) indicating continuation or a list of files.