

Lab Credit

1 showing up

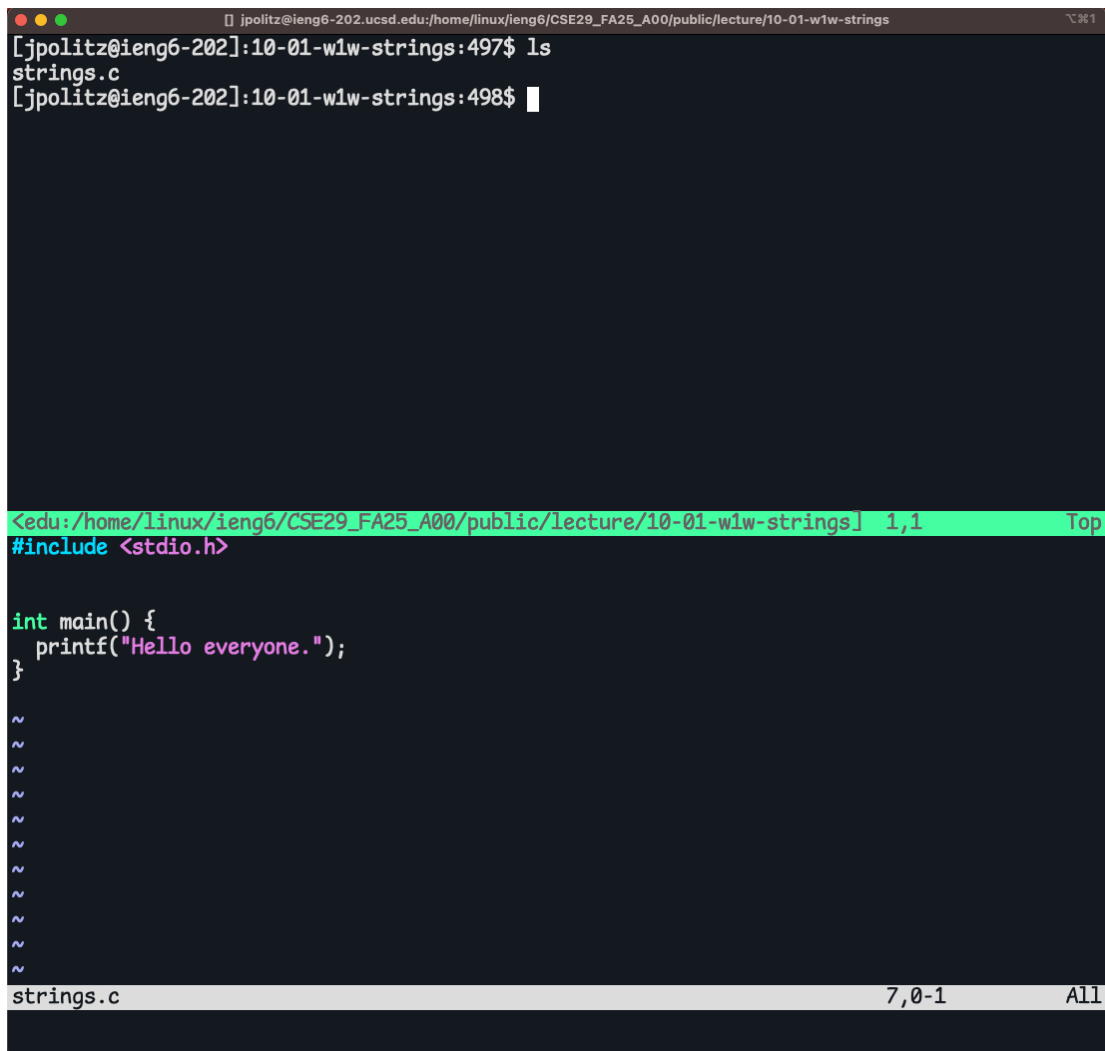
2 participation (Lab 1)

1 check off (survey, PL Lab 1)

- due w/problem set

```
[jpolitz@ieng6-202]:10-01-w1w-strings:511$ pwd
/home/linux/ieng6/CSE29_FA25_A00/public/lecture/10-01-w1w-strings
[jpolitz@ieng6-202]:10-01-w1w-strings:512$
```

Use `:term` to open terminal in Vim



The screenshot shows a Vim editor window with two panes. The top pane is a terminal window showing the command `ls` being executed, resulting in the output `strings.c`. The bottom pane shows the contents of `strings.c`, which includes a C program with a `main` function that prints "Hello everyone." and several lines of tilde characters (`~`). The status bar at the bottom of the editor shows the file name `strings.c`, the line and column number `7,0-1`, and the word `All`.

Use `Ctrl-W Ctrl-W` to switch panes (hold `Ctrl`, `W` twice)

```
[jpolitz@ieng6-202]:10-01-w1w-strings:497$ ls
strings.c
[jpolitz@ieng6-202]:10-01-w1w-strings:498$ gcc strings.c -o strings
[jpolitz@ieng6-202]:10-01-w1w-strings:499$ ls
strings  strings.c
[jpolitz@ieng6-202]:10-01-w1w-strings:500$ ./strings.out
bash: ./strings.out: No such file or directory
[jpolitz@ieng6-202]:10-01-w1w-strings:501$ ./strings
Hello everyone.[jpolitz@ieng6-202]:10-01-w1w-strings:502$
```

Strings in C

a C string is an array of
characters (*char datatype*) ending
in a 0 byte

```
char s[] = "Hello";
```

s is an array containing {'H', 'e', 'l', 'l', 'o', 0}

```
[jpolitz@ieng6-202]:10-01-w1w-strings:505$ gcc strings.c -o strings
[jpolitz@ieng6-202]:10-01-w1w-strings:506$ ./strings
H 72
e 101
l 108
l 108
o 111
0
[jpolitz@ieng6-202]:10-01-w1w-strings:507$
```

```
<edu:/home/linux/ieng6/CSE29_FA25_A00/public/lecture/10-01-w1w-strings> 1,
#include <stdio.h>

int main() {
    char s[] = "Hello";

    for(int i = 0; i <= 5; i += 1) {
        printf("%c %d\n", s[i], s[i]);
    }

    printf("\n");
}
```

```
[jpolitz@ieng6-202]:10-01-w1w-strings:507$ gcc strings.c -o strings
[jpolitz@ieng6-202]:10-01-w1w-strings:508$ ./strings
H 72
e 101
l 108
l 108
o 111
```

0
What is going

no "\0" print

```
[jpolitz@ieng6-202]:10-01-w1w-strings:509$
```

```
<edu:/home/linux/ieng6/CSE29_FA25_A00/public/lecture/10-01-w1w-strings> 1,1
#include <stdio.h>
```

```
int main() {
    char s[] = "Hello";
    // Show \0

    for(int i = 0; i <= 5; i += 1) {
        printf("%c %d\n", s[i], s[i]);
    }

    char s2[] = "What is going \0 on";
    puts(s2);

    printf("\n");
}
```

```
[jpolitz@ieng6-202]:10-01-w1w-strings:509$ gcc strings.c -o strings
[jpolitz@ieng6-202]:10-01-w1w-strings:510$ ./strings
length of s: 5
length of s2: 14
```

```
[jpolitz@ieng6-202]:10-01-w1w-strings:511$
```

```
<edu:/home/linux/ieng6/CSE29_FA25_A00/public/lecture/10-01-w1w-strings> 1,1
```

Top

```
#include <stdio.h>
```

```
int length(char s[]) {
    int index = 0;
    int size = 0;
    while(s[index] != 0) {
        index += 1;
        size += 1;
    }
    return size;
}
```

```
int main() {
    char s[] = "Hello";
    char s2[] = "What is going \0 on";

    printf("length of s: %d\n", length(s));
    printf("length of s2: %d\n", length(s2));
    printf("\n");
}
```