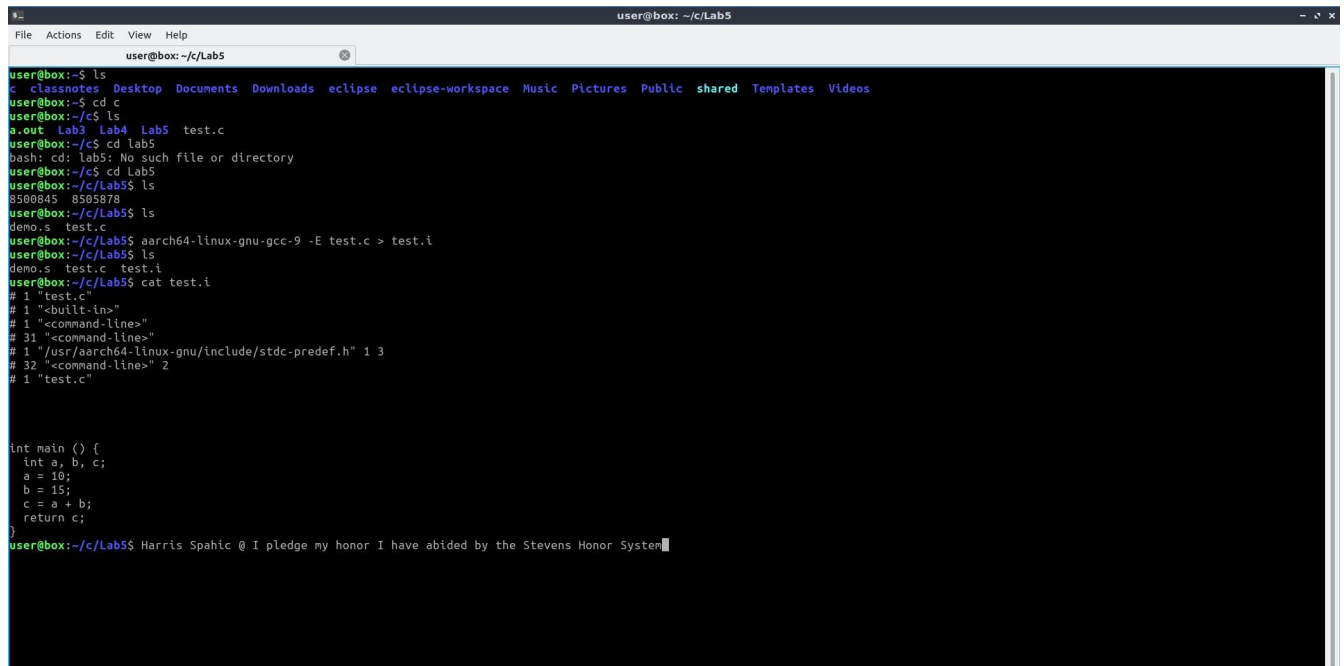


Name: Harris Spahic

Date: 9/29/21

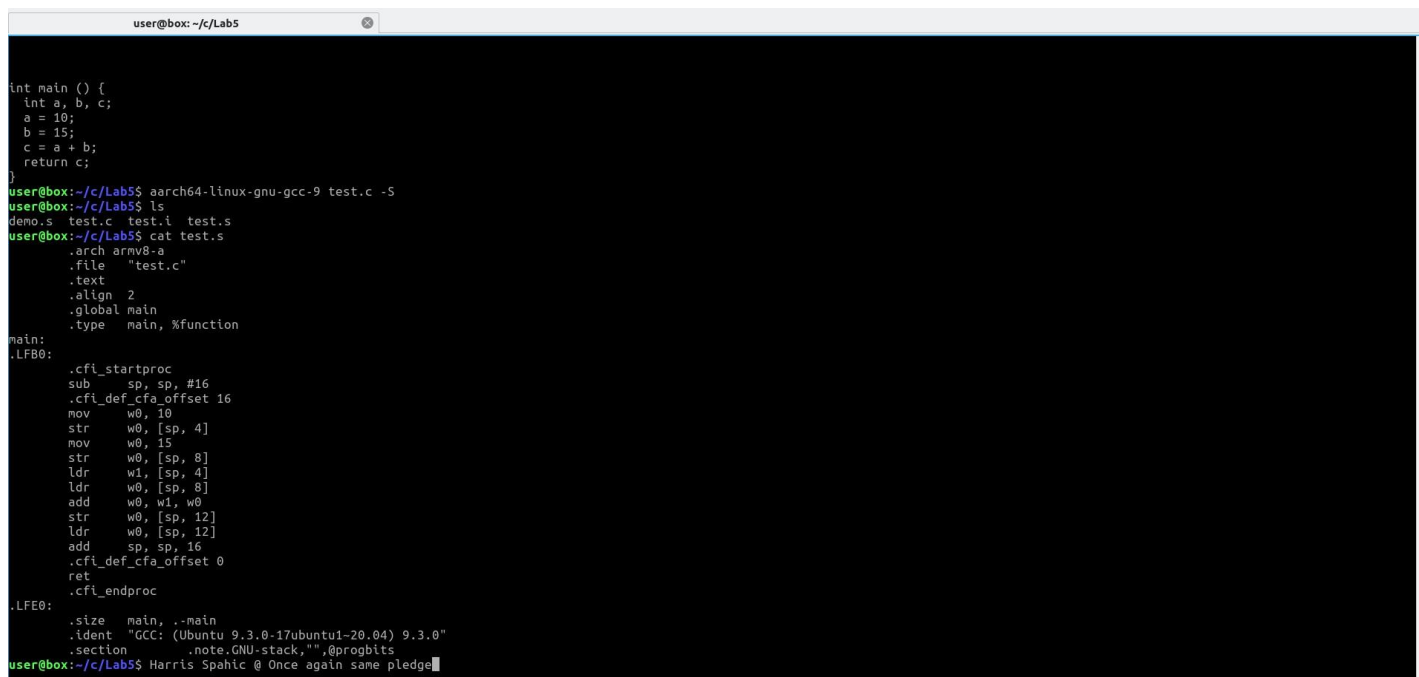
Screenshot1:



```
user@box: ~/c/Lab5
user@box:~$ ls
.  classnotes  Desktop  Documents  Downloads  eclipse  eclipse-workspace  Music  Pictures  Public  shared  Templates  Videos
user@box:~$ cd c
user@box:~/c$ ls
a.out  Lab3  Lab4  Lab5  test.c
user@box:~/c$ cd Lab5
bash: cd: Lab5: No such file or directory
user@box:~/c$ cd Lab5
user@box:~/c/Lab5$ ls
3500645  8905878
user@box:~/c/Lab5$ ls
demo.s  test.c
user@box:~/c/Lab5$ aarch64-linux-gnu-gcc-9 -E test.c > test.i
user@box:~/c/Lab5$ ls
demo.s  test.c  test.i
user@box:~/c/Lab5$ cat test.i
# 1 "test.c"
# 1 "<built-in>"
# 1 "<command-line>"
# 31 "<command-line>"
# 1 "/usr/aarch64-linux-gnu/include/stdc-predef.h" 1 3
# 32 "<command-line>" 2
# 1 "test.c"

int main () {
    int a, b, c;
    a = 10;
    b = 15;
    c = a + b;
    return c;
}
user@box:~/c/Lab5$ Harris Spahic @ I pledge my honor I have abided by the Stevens Honor System
```

Screenshot 2:



```
user@box:~/c/Lab5
user@box:~/c/Lab5$ aarch64-linux-gnu-gcc-9 test.c -S
user@box:~/c/Lab5$ ls
demo.s  test.c  test.i  test.s
user@box:~/c/Lab5$ cat test.s
        .arch armv8-a
        .file "test.c"
        .text
        .align 2
        .global main
        .type main, %function

main:
.LFB0:
        .cfi_startproc
        sub     sp, sp, #16
        .cfi_def_cfa_offset 16
        mov     w0, #10
        str     w0, [sp, 4]
        mov     w0, #15
        str     w0, [sp, 8]
        ldr     w1, [sp, 4]
        ldr     w0, [sp, 8]
        add     w0, w1, w0
        str     w0, [sp, 12]
        ldr     w0, [sp, 12]
        add     sp, sp, 16
        .cfi_def_cfa_offset 0
        ret
        .cfi_endproc

.LFE0:
        .size    main, .-main
        .ident   "GCC: (Ubuntu 9.3.0-17ubuntu1-20.04) 9.3.0"
        .section .note.GNU-stack,"",@progbits
user@box:~/c/Lab5$ Harris Spahic @ Once again same pledge
```

### Screenshot 3:

```
user@box: ~/c/Lab5
File Actions Edit View Help
user@box: ~/c/Lab5
user@box:~/c/Lab5$ cat test.s
.arch armv8-a
.file "test.c"
.text
.align 2
.global main
.type main, %function

main:
.LFB0:
.cfi_startproc
sub    sp, sp, #16
.cfi_def_cfa_offset 16
mov    w0, #10
str     w0, [sp, 4]
mov    w0, #15
str     w0, [sp, 8]
ldr     w1, [sp, 4]
ldr     w0, [sp, 8]
add     w0, w1, w0
str     w0, [sp, 12]
ldr     w0, [sp, 12]
add     sp, sp, 16
.cfi_def_cfa_offset 0
ret
.cfi_endproc
.LFE0:
.size   main, .-main
.ident  "GCC: (Ubuntu 9.3.0-17ubuntu1~20.04) 9.3.0"
.section .note.GNU-stack,"",@progbits
user@box:~/c/Lab5$ aarch64-linux-gnu-as demo.s -o demo.o
user@box:~/c/Lab5$ iaarch64-linux-gnu-ld demo.o

Command 'iaarch64-linux-gnu-ld' not found, did you mean:

  command 'aarch64-linux-gnu-ld' from deb binutils-aarch64-linux-gnu (2.34-6ubuntu1.1)

Try: sudo apt install <deb name>
user@box:~/c/Lab5$ aarch64-linux-gnu-ld demo.o
user@box:~/c/Lab5$ qemu-aarch64 a.out
user@box:~/c/Lab5$ ls
a.out demo.o demo.s test.c test.i test.s
user@box:~/c/Lab5$ Harris Spahic is once again here
```