

**Name:**Fangfang Sun  
**Netid:** fs1337

### **Assignment 3 (Shared Memory)**

Answer:

There are two processes in my project, we use shared memory to store the characters got from the input, use semaphores to protect the shared memory, and make sure there is only one process to gain access to the shared memory.

Executing steps for receive.c:

- 1 open one terminal, run: "gcc receive.c"
- 2 execute the object file for receive.c: "./a.out"

Executing steps for processor.c:

- 1 open the other terminal, run: "gcc processor.c -o secret.out"
- 2 execute the object file for receive.c: "./secret.out"

Result for this assignment:

For receive.c:

```
assignment3 — -bash — 80×24
SunFangfangsMBP:assignment3 FangfangSun$ gcc receive.c
SunFangfangsMBP:assignment3 FangfangSun$ ./a.out
Please input your string:
hello,world
Please input your string:
C00L1234567890
Please input your string:
CkkkkkkkkkC00L134567890987654321
Please input your string:
^C
SunFangfangsMBP:assignment3 FangfangSun$
```

For processor.c:

```
assignment3 — -bash — 80×24
SunFangfangsMBP:assignment3 FangfangSun$ gcc processor.c -o secrets.out
SunFangfangsMBP:assignment3 FangfangSun$ ./secrets.out
14,C00L1234567890
32,CkkkkkkkkkC00L134567890987654321
^C
SunFangfangsMBP:assignment3 FangfangSun$
```

In a word, from the previous results we can see that lines with “C00L” were stored

in the file “secret.out”.