

```
basofjan@workbench:~$ ps -f -u basofjan
```

| UID      | PID   | PPID  | C | STIME | TTY   | TIME     | CMD                         |
|----------|-------|-------|---|-------|-------|----------|-----------------------------|
| basofjan | 56567 | 1     | 0 | 22:35 | ?     | 00:00:00 | /lib/systemd/systemd --user |
| basofjan | 56568 | 56567 | 0 | 22:35 | ?     | 00:00:00 | (sd-pam)                    |
| basofjan | 56652 | 56562 | 0 | 22:35 | ?     | 00:00:00 | sshd: basofjan@pts/8        |
| basofjan | 56654 | 56652 | 0 | 22:35 | pts/8 | 00:00:00 | -bash                       |
| basofjan | 57337 | 56654 | 0 | 22:37 | pts/8 | 00:00:00 | ps -f -u basofjan           |

```
basofjan@workbench:~$ free -s 2 -c 5 -g
```

|       | total | used | free | shared | buff/cache | available |
|-------|-------|------|------|--------|------------|-----------|
| Mem:  | 376   | 0    | 375  | 0      | 0          | 376       |
| Swap: | 0     | 0    | 0    |        |            |           |

|       | total | used | free | shared | buff/cache | available |
|-------|-------|------|------|--------|------------|-----------|
| Mem:  | 376   | 0    | 375  | 0      | 0          | 376       |
| Swap: | 0     | 0    | 0    |        |            |           |

|       | total | used | free | shared | buff/cache | available |
|-------|-------|------|------|--------|------------|-----------|
| Mem:  | 376   | 0    | 375  | 0      | 0          | 376       |
| Swap: | 0     | 0    | 0    |        |            |           |

|       | total | used | free | shared | buff/cache | available |
|-------|-------|------|------|--------|------------|-----------|
| Mem:  | 376   | 0    | 375  | 0      | 0          | 376       |
| Swap: | 0     | 0    | 0    |        |            |           |

|       | total | used | free | shared | buff/cache | available |
|-------|-------|------|------|--------|------------|-----------|
| Mem:  | 376   | 0    | 375  | 0      | 0          | 376       |
| Swap: | 0     | 0    | 0    |        |            |           |

Swap is a technology that allows an OS to have more memory for running applications than is available in physical RAM by employing memory swapping. Memory swapping is a memory management technique and works by making use of virtual memory and storage space. Memory swapping enables the computer to run faster and allows the system to provide additional resources when necessary. The swap space exists on the hard disk and the amount of virtual memory available is the sum of physical memory and swap space.

Reading symbols from ./ex...done.

(gdb) b 3

Breakpoint 1 at 0x60a: file gdb\_exercise.c, line 3.

(gdb) run

Starting program: /student/19/cs/basofjan/T1/ex

Breakpoint 1, func1 (a=9) at gdb\_exercise.c:3

3           return tmp;

(gdb) backtrace

#0 func1 (a=9) at gdb\_exercise.c:3

#1 0x000055555555462b in func2 (a=3, b=3) at gdb\_exercise.c:7

#2 0x0000555555554652 in func3 (a=1, b=2, c=3) at gdb\_exercise.c:11

#3 0x0000555555554670 in main () at gdb\_exercise.c:15

(gdb) print tmp

\$1 = 18

(gdb) █