

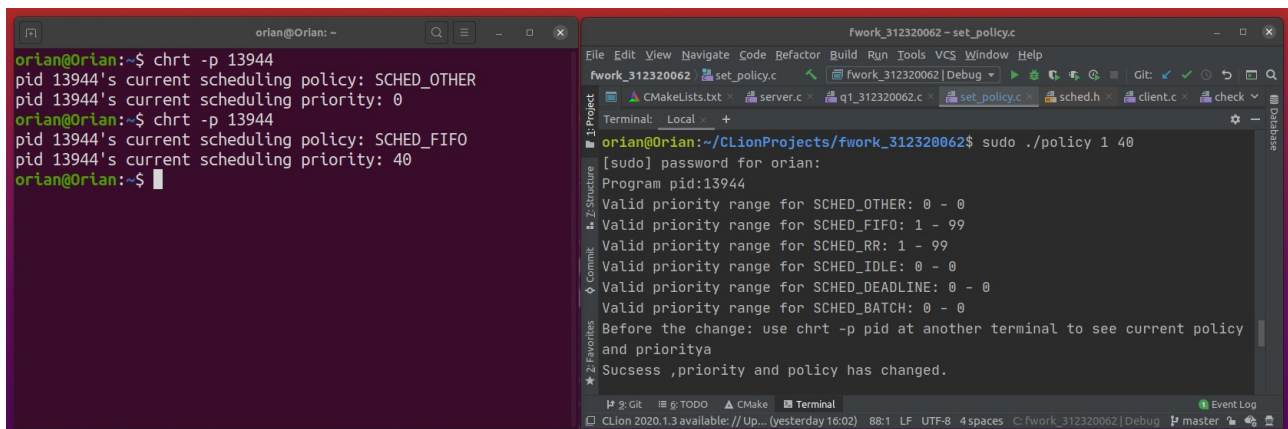
Question 3:

In this Question I changed a process policy and priority using the system call `sched_setscheduler()` we will give little explanation about this.

There are several policies and for each policy we have range of priority values that can be accepted.

- Valid priority range for `SCHED_OTHER`: 0-0
- Valid priority range for `SCHED_FIFO`: 1-99
- Valid priority range for `SCHED_RR`: 1-99
- Valid priority range for `SCHED_IDLE`: 0-0
- Valid priority range for `SCHED_DEADLINE`: 0-0
- Valid priority range for `SCHED_BATCH`: 0-0

Now , lets see that the policy and priority has really changed.



```
orlan@Orlan:~$ chrt -p 13944
pid 13944's current scheduling policy: SCHED_OTHER
pid 13944's current scheduling priority: 0
orlan@Orlan:~$ chrt -p 13944
pid 13944's current scheduling policy: SCHED_FIFO
pid 13944's current scheduling priority: 40
orlan@Orlan:~$
```

```
fwork_312320062 - set_policy.c
File Edit View Navigate Code Refactor Build Run Tools VCS Window Help
fwork_312320062 | set_policy.c | fwork_312320062 | Debug | Git: ✓ | | |
CMakeLists.txt | server.c | q1_312320062.c | set_policy.c | sched.h | client.c | check
Terminal: Local +
orlan@Orlan:~/CLionProjects/fwork_312320062$ sudo ./policy 1 40
[sudo] password for orlan:
Program pid:13944
Valid priority range for SCHED_OTHER: 0 - 0
Valid priority range for SCHED_FIFO: 1 - 99
Valid priority range for SCHED_RR: 1 - 99
Valid priority range for SCHED_IDLE: 0 - 0
Valid priority range for SCHED_DEADLINE: 0 - 0
Valid priority range for SCHED_BATCH: 0 - 0
Before the change: use chrt -p pid at another terminal to see current policy and priority
Success ,priority and policy has changed.
```

As we can see from the screen shot above , when running the program we used `sudo` because in this program we change scheduler and priority of process which means that we need permission.

We used the command `chrt -p <pid>` to get real – time scheduling attributes of our program pid. At first before we used the system call `sched_setscheduler()` we can see the the scheduler policy id : `SCHED_OTHER` and the priority is 0.

After we changed the policy and priority we can see that the policy has been changed to `SCHED_FIFO`(The value of `SCHED_FIFO` in linux is 1) and the priority has been changed to 40.

