Modify a pending job: `qalter`

**How to modify a job already submitted?**

**Modifying resources request:**

If your job has already been submitted, and it is not running yet, and you decide that you need to modify some of the submission parameters, you can use the command `qalter`:

```
>$ qalter ... your new requests ... JOBID
```

For example suppose that you initially submitted a job using the queue instance `queue1`, but later realize that `queue2` would be better:

```
[testuser@login-node-1-0 ~]$ qsub -q queue1.q myjob.txt
Your job 3185289 ("myjob.txt") has been submitted

[testuser@login-node-1-0 ~]$ qalter -q queue2.q 3185289
```

As another example, consider a situation in which you have submitted 100 jobs, and some of them start running and crash because you forgot to allocate enough memory. You realize can modify the pending jobs simply adding the `memory request`:

```
[testuser@login-node-1-0 ~]$ qalter -l mem_free=2G -l mem_token=2G 3185289
```

**Note:** In some case `qalter` allows you to change the parameter of a job already running. In that case (except for rare exceptions) the modification will happen only when the job is restarted or relocated.

If you need to trigger suspension and relocation of your own job, please check out the documentation of the command `qmod`

**Putting jobs on hold:**

You can also put a pending job "on hold" in case you realize you need to complete some other task before the job starts:

```
>$ qalter -h u JOBID
```
```plaintext
[testuser@login-node-1-0 ~]$ qsub -l myqueue.q test.job
Your job 3185678 ("test.job") has been submitted

[testuser@login-node-1-0 ~]$ qstat
job-ID  prior   name       user         state   submit/start at       queue slots ja-task-ID
--------------------------------------------------------------------------------------
3185678 0.00000 test.job   testuser     qw     02/12/2015 10:44:09

[testuser@login-node-1-0 ~]$ qalter -h u 3185678
modified hold of job 3185678

[testuser@login-node-1-0 ~]$ qstat
job-ID  prior   name       user         state   submit/start at       queue slots ja-task-ID
--------------------------------------------------------------------------------------
3185678 0.00000 test.job   testuser     hqw    02/12/2015 10:44:09

NOTE: to implement in a more organized way dependencies between jobs, please read these instructions
```