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// Edit global_avg.c on your laptop using global_avg_blank.c as a starting point

// In a terminal, log in to discovery & create a directory for assignment 2
MacBook-Pro-34 ~ % ssh anakano@discovery.usc.edu
[anakano@discovery2 ~]$ cd cs596
[anakano@discovery2 cs596]$ mkdir as02

// Open another terminal and transfer necessary files from the laptop to discovery
// Note I'm in the local directory for this assignment on the laptop
MacBook-Pro-34 csci596-as02+ % sftp anakano@discovery.usc.edu
sftp> cd cs596/as02
sftp> put global_avg.c global_avg.sl

// Compile & run (by submitting a Slurm script) on discovery
[anakano@discovery2 cs596]$ cd as02
[anakano@discovery2 as02]$ mpicc -o global_avg global_avg.c
[anakano@discovery2 as02]$ sbatch global_avg.sl
Submitted batch job 16674246

// When the job is completed (use squeue command to check it), see the output file
// Once it's done, the job ID will disappear from the squeue list
[anakano@discovery2 as02]$ squeue -u anakano
      JOBID PARTITION    NAME    USER  ST       TIME  NODES NODELIST(REASON)
      16674246      main global_a  anakano PD       0:00        2 (Priority)
[anakano@discovery2 as02]$ cat global_avg.out
=====
SLURM_JOB_ID = 16674246
SLURM_JOB_NODELIST = e13-[32-33]
TMPDIR = /tmp/SLURM_16674246
=====
Rank 1 has partial value 1.000000e+00
Rank 2 has partial value 2.000000e+00
Rank 3 has partial value 3.000000e+00
Rank 0 has partial value 0.000000e+00
Rank 5 has partial value 5.000000e+00
Rank 6 has partial value 6.000000e+00
Rank 7 has partial value 7.000000e+00
Rank 4 has partial value 4.000000e+00
Global average = 3.500000e+00
Execution time (s) = 1.041939e-02
Rank 2 has partial value 2.000000e+00
Rank 3 has partial value 3.000000e+00
Rank 0 has partial value 0.000000e+00
Rank 1 has partial value 1.000000e+00
Global average = 1.500000e+00
Execution time (s) = 3.034300e-04

// You can transfer the output file to your laptop for keeping record, then exit
sftp> get global_avg.out
sftp> exit

// Also, end the ssh session by typing exit

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