

```
// 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
```

```
sftp> exit
```

```
// 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	ODELIST(Reason)
16674246	main	global_a	anakano	PD	0:00	2	(Priority)

```
[anakano@discovery2 as02]$ cat global_avg.out
```

```
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```

```
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.c
```

```
sftp> exit
```

```
// Also, end the ssh session by typing exit
```