

SALIH KILICLI – STAT 624 HOMEWORK 1

— SETUP —

```
> ssh -YC username@terra.tamu.edu           # logs in to terra account
> wget https://mac.r-project.org/benchmarks/bench.R   # downloads the R file.
> module load R                                       # loads R module from terra account
> export R_BATCH_OPTIONS="-no-save -no-restore -slave" # exports R batch options.
> R CMD BATCH bench.R bench.R.xy                 # runs the test script
> ls                                                 # lists the initial files in the wd
bench.R bench.R.xy
```

— HW1.SH FILE —

Here, I have written a shell file **hw1.sh** that runs the required 3 x 5 jobs in parallel on the Terra

```
#!/bin/bash

# BASH script: hw1.sh; to make executable use: chmod u+x hw1.sh

# wget https://mac.r-project.org/benchmarks/bench.R

# to run and time it use: time ./hw1.sh

# module load R

# export R_BATCH_OPTIONS="-no-save -no-restore -slave"

for i in {x..z}
do
    for j in {1..5}
    do
        R CMD BATCH bench.R file-${i}${j} &           #runs 5 (bench.R to file-ij) jobs in parallel
    done
done

wait

done

# 5 parallel jobs repeated 3 times for x y z variables #times the process without results
```

Saved and uploaded this file into my Terra account's working directory

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— FINAL COMMANDS —

> **chmod u+x hw1.sh**

#makes hw1.sh shell script executable

> **time ./hw1.sh**

times the process of hw1.sh

real 0m51.299s

user 3m58.654s

sys 0m8.742s

> **ls -l**

#lists the files in wd in detail

```
-rw-rw-r-- 1 math3mantic math3mantic 823 Dec 2 2012 bench.R
-rw-rw-r-- 1 math3mantic math3mantic 2880 Sep 16 21:41 bench.R.xy
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-x1
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-x2
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-x3
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-x4
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-x5
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-y1
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-y2
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-y3
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-y4
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-y5
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-z1
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-z2
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-z3
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-z4
-rw-rw-r-- 1 math3mantic math3mantic 1267 Sep 17 13:01 file-z5
-rwxrwx-- 1 math3mantic math3mantic 448 Sep 17 12:49 hw1.sh
```