学生:徐荣苗

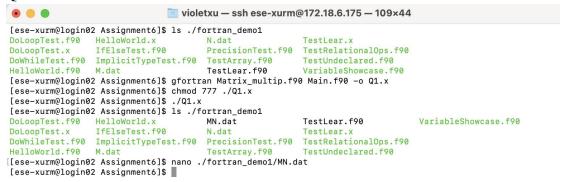
批改:李娟

Assignment 6

得分:40/40 Name: Rongmiao Xu

UID: 12132227

Q1.



🛅 violetxu — ssh ese-xurm@172.18.6.175 — 87×39

GNU nano 2.3.1 文件: ./fortran_demo1/M.dat

19.48 15.79 19.28 19.28 12.92 15.86 15.86 11.29 14.04 11.93 18.60 18.23 19.28 12.92 15.86

● ● ■ violetxu — ssh ese-xurm@172.18.6.175 — 87×39

GNU nano 2.3.1 文件: ./fortran_demo1/N.dat

7.72 4.11 1.44 4.80 5.55 5.55 4.80 4.04 0.59 8.58 0.59 8.58 2.26 7.72 4.11

GNU nano 2.3.1 文件: ./fortran_demo1/MN.dat

249.40 321.28 135.42 251.66 322.83 229.90 277.34 115.80 222.61 283.04 239.84 193.38 100.18 191.18 242.60 206.09 294.73 133.52 208.97 300.72 229.90 277.34 115.80 222.61 283.04

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in violetxu — ssh ese-xurm@172.18.6.175 — 109×44
[ese-xurm@login02 Assignment6]$ vi Solar_hour_angle.f90
[ese-xurm@login02 Assignment6]$ vi Solar_elevation_angle.f90
[ese-xurm@login02 Assignment6]$ vi Declination_angle.f90
[ese-xurm@login02 Assignment6]$ gfortran -c Solar_hour_angle.f90
[ese-xurm@login02 Assignment6]$ gfortran -c Declination_angle.f90
[ese-xurm@login02 Assignment6]$
[ese-xurm@login02 Assignment6]$ ar rcvf libsolar.a Solar_hour_angle.o Declination_angle.o
a - Solar_hour_angle.o

a - Declination_angle.o

[ese-xurm@login02 Assignment6]$ gfortran Solar_elevation_angle.f90 -o Q2.x -L. -lsolar
[ese-xurm@login02 Assignment6]$ chmod 777 ./Q2.x
[ese-xurm@login02 Assignment6]$
[ese-xurm@login02 Assignment6]$ ./Q2.x
 SEA for Shenzhen (22.542883N, 114.062996E) at 10:32 (Beijing time; UTC+8) on 2021-12-31: 36.63505466177102
[ese-xurm@login02 Assignment6]$
[ese-xurm@login02 Assignment6]$ ls
Declination_angle.f90 fortran_demo1 declination_angle.mod libsolar.a Makefile
                                                     Makefile Solar_elevation_angle.f90 Solar_hour_angle.o Matrix_multip.f90 Solar_hour_angle.f90
Declination_angle.o
                               Main.f90
                                                     Q2.x
                                                                                solar_hour_angle.mod
[ese-xurm@login02 Assignment6]$
```

Comparing with the answer on the website:

Solar elevation angle calculator

Select the date & time and your timezone, enter your longitude & latitude to calculate the solar elevation angle (or solar latitude angle) and zenith angle.

