README.md 8/16/2023

information about exercise 2

Build BLIS library

AMD provide its own implementation of standard BLAS routine, this implementation is provided in the BLIS library, available here. There is also the source code on github.

Download it:

```
$git clone https://github.com/flame/blis.git
$cd blis
```

Configure and compile with openMP support (multithreading is disabled by default, remember to modify *prefix* path):

```
srun -n1 ./configure --enable-cblas --enable-threading=openmp --
prefix=/u/area/ntosato/myblis auto
srun -n 1 --cpus-per-task=128 make -j 128
make install
```

We compile in the target machine, and we allow the command to use 128 cores, then use –j 128 argument to compile in parallel way.

To use BLIS with multiple threads: export BLIS_NUM_THREADS=128.

The final artifact will be placed in /u/area/ntosato/myblis/lib directory, this is the path that you need to put inside Makefile and library path .

To compile the previous exercise with the new BLIS library modify the Makefile uncommenting the BLIS related rows.

And adjust LD_LIBRARY_PATH (modify it with your own path):

```
export LD_LIBRARY_PATH=/u/area/ntosato/myblis/lib:$LD_LIBRARY_PATH
```