

Task 2&3: I was not able to get my environment up and running, I am using a machine with AMD hardware and no graphics card. I only can see one device on the ubuntu terminal:

```
mike@DESKTOP-OJMI3JB:~$ clinfo
Number of platforms          1
Platform Name                Clover
Platform Vendor              Mesa
Platform Version             OpenCL 1.1 Mesa 23.2.1-lubuntu3.1~22.04.2
Platform Profile             FULL_PROFILE
Platform Extensions          cl_khr_icd
Platform Extensions function suffix MESA

Platform Name                Clover
Number of devices            0

NULL platform behavior
clGetPlatformInfo(NULL, CL_PLATFORM_NAME, ...)  Clover
clGetDeviceIDs(NULL, CL_DEVICE_TYPE_ALL, ...)   No devices found in platform [Clover?]
clCreateContext(NULL, ...) [default]           No devices found in platform
clCreateContextFromType(NULL, CL_DEVICE_TYPE_DEFAULT) No devices found in platform
clCreateContextFromType(NULL, CL_DEVICE_TYPE_CPU) No devices found in platform
clCreateContextFromType(NULL, CL_DEVICE_TYPE_GPU) No devices found in platform
clCreateContextFromType(NULL, CL_DEVICE_TYPE_ACCELERATOR) No devices found in platform
clCreateContextFromType(NULL, CL_DEVICE_TYPE_CUSTOM) No devices found in platform
clCreateContextFromType(NULL, CL_DEVICE_TYPE_ALL) No devices found in platform

ICD loader properties
ICD loader Name              OpenCL ICD Loader
ICD loader Vendor            OCL Icd free software
ICD loader Version           2.2.14
ICD loader Profile           OpenCL 3.0
mike@DESKTOP-OJMI3JB:~$ |
```

And when compiling the code, I would get the error below:

```
mike@DESKTOP-OJMI3JB:/mnt/c/Users/micha/Documents/DSU FILES/CSC 410 PARRALELL COMPUTING/A6$ gcc matrixOCL.c -lOpenCL
mike@DESKTOP-OJMI3JB:/mnt/c/Users/micha/Documents/DSU FILES/CSC 410 PARRALELL COMPUTING/A6$ ./a.out
Failed to find openCL device
Error: -1
mike@DESKTOP-OJMI3JB:/mnt/c/Users/micha/Documents/DSU FILES/CSC 410 PARRALELL COMPUTING/A6$ |
```

From what I have read, the processor in this older laptop may not support OpenGL however I have a program that may or may not work, but I was able to get it to compile.