

GPGPU Assignment #0

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1 Goals

You have to

1. Get your OS/IDE/editor configured and be ready to write CUDA code (How? Google is your friend).
2. Become familiar with CUDA syntax (You should have learnt some of it during the first lecture).

2 Requirements

In this assignment you have to draw something in text by CUDA. We have provided a skeleton and some utilization functions (`SyncedMem<T>` and `MemoryBuffer<T>`).

We allocate a buffer of size 40×12 but one linebreak is required for each line, so the actual drawing area is 39×12 including the boundary, which consists of colons.

Here we show a possible output.

```
1  :::::::::::::::::::::::::::::::::::::::
2  :                                     :
3  :                                     :
4  :                                     :
5  :                                     :
6  :          #####          <|       :
7  :          #####          |       :
8  :          #####          |       :
9  :          #####          |       :
10 :          #####          |       :
11 :          #####          #       :
12 :::::::::::::::::::::::::::::::::::::::
```

Listing 1: The famous scene in Nintendo Super Mario.

3 Submission

- The submission deadline is the midnight on 3/1 Wed. (namely before 3/2).

- You will be officially registered to this course only if you complete and submit a working solution in time.
- We will clone your code through Git using script; you may continue to revise your code before the deadline, but we will use the last revision before the deadline.
- Use a non-public Git repository such as Bitbucket, and make sure that your code can be cloned by these accounts: <https://bitbucket.org/johnjohnlys/> or <https://github.com/johnjohnlin>.
- Please fill your information and git repo in [this form](#). TA will test your Git URL one day before the deadline, so you can modify your URL in time if it doesn't work.
- You should complete this homework by yourself. Do not plagiarize, and do not facilitate plagiarism. Make sure your Git repository is not accessible by your classmates.

Please keep the directory structure of the repo we have provided. For this assignment, we will only judge `lab0/main.cu`.

4 Hints

- "`SyncedMemory.h`" is under the directory `utils/`.
- C++11 is required throughout all of the assignment. AFAIK, Visual Studio 2013 and g++ 4.8 or later is recommended.