LABWORK 2

GET TO KNOW YOUR GPU

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Introduction

Implement labwork2_GPU()to extract information about your GPU(s).
. Device name
. Core info: clock rate, core counts, multiprocessor count,wrap size
. Memory info: clock rate, bus width and [optional] bandwidth.

Source codes

```
void Labwork::labwork2_GPU() {
    int nDevices = 0;
    // get all devices
    cudaGetDeviceCount(&nDevices);
    printf("Number total of GPU : %d\n\n", nDevices);
    for (int i = 0; i < nDevices; i++){
        // get informations from individual device
        cudaDeviceProp prop;
        cudaGetDeviceProperties(&prop, i);
        // something more here
printf("GPU name is %d\n", prop.name);
printf("GPU clock is %d\n", prop.clockRate);
printf("GPU cores is %d\n", getSPcores(prop));

    }

}
```

Analysis

USTH ICT Master 2018, Advanced Programming for HPC. Warming up... Starting labwork 2 Number total of GPU : 2

GPU name is 1084598816 GPU clock is 745000 GPU cores is 2880 Multiprocessors: 15 Warp size: 32 Memory Clock rate (KHz): 3004000 Memory Bus width (bits): 384 GPU name is 1084598816 GPU clock is 980000 GPU cores is 2880 Multiprocessors: 15 Warp size: 32 Memory

Clock rate (KHz): 3500000 Memory Bus width (bits): 384 labwork 2 ellapsed 0.7ms