LABWORK 2

GET TO KNOW YOUR GPU

TRAN Quy Ban
Department of ICT

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 1 labwork 1 CPU ellapsed 4044.4ms 1 3745.12 2372.33 1262.14 963.95 798.86 683.97 611.18 535.69 479.210 433.811 394.912 392.213 348.414 332.815 309.716 401.317 507.818 469.619 444.620 423.621 403.722 385.223 368.624 365.325 344.726 327.927 321.328 319.129 297.730 299.431 293.032 280.733 425.634 420.535 422.036 417.337 416.438 411.939 430.540 416.841

435.842 412.743 415.244 404.245 407.846 399.847 390.548 380.449 375.650 377.951 369.652 368.053 362.754 368.955 360.856 360.057 367.258 365.359 375.160 371.161 369.762 382.563 377.9 labwork 1 ellapsed 487.2ms