# Advaned Programming for HPC - Report 2

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## RESULT:

Starting labwork 2
Number total of GPU : 2

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Name: Tesla K40c
Clock rate: 745000
Core count: 2880
Multiprocessors: 15
Warp size: 32
Memory info
Memory clock rate: 3004000
Memory bus width: 384

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Name: GeForce GTX TITAN Black
Clock rate: 980000
Core count: 2880
Multiprocessors: 15
Warp size: 32
Memory info
Memory clock rate: 3500000
Memory bus width: 384
labwork 2 ellapsed 0.8ms

## IMPLEMENTATION

```
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
        printf("---------------------------------\n");
        cudaDeviceProp prop;
        cudaGetDeviceProperties(&prop, i);
        // something more here
        printf("Name: %s\n", prop.name);
        printf("Clock rate: %d\n", prop.clockRate);
        printf("Core count: %d\n", getSPcores(prop));
        printf("Multiprocessors: %d\n", prop.multiProcessorCount);
        printf("Warp size: %d\n", prop.warpSize);
        printf("Memory info\n");
```

```
        printf("Memory clock rate: %d\n", prop.memoryClockRate);
        printf("Memory bus width: %d\n", prop.memoryBusWidth);
    }
}
```