

Lab 2 – Report

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cudaMallocManaged:

Instead of allocating memory both on GPU and CPU we can use **cudaMallocManaged()** to allocate space, which is accessible from any processor in system. It is faster and much easier to do.

During the labs we tried to check how much data can the device handle. The result is 2^{29} elements of float (4 bytes). The problem appeared when we exceeded the maximum. The program just crashed. To prevent it before allocating memory we have checked if we have enough space using **cudaGetDeviceProperties** and **totalGlobalMem**.