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Description automatically generated****Original CUDA Code “Linear Regression”***

Warning: Not Changed for Some Reason

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Description automatically generated****Original DCP++ Translation Code “Linear Regression”***

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Warning: Not Changed for Some Reason

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Change to make the warning go away:

//allocate memory for device size pointers

cudaMalloc((float\*\*)&d\_a, n\_bytes);

cudaMalloc((float\*\*)&d\_b, n\_bytes);

cudaMalloc((float\*\*)&sxy, n\_bytes);

cudaMalloc((float\*\*)&sx, n\_bytes);

cudaMalloc((float\*\*)&sy, n\_bytes);

cudaMalloc((float\*\*)&sxs, n\_bytes);

cudaMalloc((float\*\*)&sys, n\_bytes);

cudaMalloc((float\*\*)&sq, n\_bytes);

After looking at the 01\_SYCL\_Migration\_Simple\_VectorAdd.ipynb, I decided to modify the original CUDA code to fit the example and make the life easier for the Compatibility tool.

Changes:

* Remove the concatenation to **double pointer floats** of the device pointers. [Remove (float\*\*) from cudaMalloc
* Change the block and grid configuration to a **one-dimensional grid** with **S elements (indexes).** This applies for both kernel activation (in Main) and kernel configurations (in the kernel function declaration).

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Change to make the warning go away:

d\_a = sycl::malloc\_device<float>(s, q\_ct1);

d\_b = sycl::malloc\_device<float>(s, q\_ct1);

sxy = sycl::malloc\_device<float>(s, q\_ct1);

sx = sycl::malloc\_device<float>(s, q\_ct1);

sy = syX`cl::malloc\_device<float>(s, q\_ct1);

sxs = sycl::malloc\_device<float>(s, q\_ct1);

sys = sycl::malloc\_device<float>(s, q\_ct1);

sq = sycl::malloc\_device<float>(s, q\_ct1);

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Description automatically generated***Final CUDA Code “Linear Regression”***

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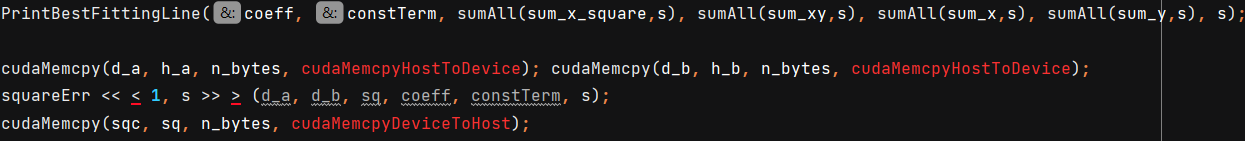
Description automatically generated***Final DPC++ Translation Code “Linear Regression”***

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