

### Step 3. Run and debug the kernel

1. Right-click the project's name and select **Clean Project**, then **Build Project** to compile the project.
2. Run the program. Change to the **Debug** perspective, then click the bug icon, then the green triangle icon. Use breakpoints, stepping, and print statements in your kernel as needed.
3. When the program runs to successful completion, you should see performance results in the **Console** tab as well as the "VERIFICATION PASSED!!!" message, along with some samples of results.

*The Verification Passed message means the contents of Z and CalcZ are the same. You can also verify that the sample of results matches the math operation you've performed.*

```

Console 23  Tasks  Problems  Executables
<terminated> SimpleOpenCL [C/C++ Application] SimpleOpenCL
Platform Number: 0
Platform Name: Intel(R) FPGA SDK for OpenCL(TM)
Platform Profile: EMBEDDED_PROFILE
Platform Version: OpenCL 1.0 Intel(R) FPGA SDK for OpenCL(TM), Version 17.1
Platform Vendor: Intel(R) Corporation

Device Number: 0
Device Name: EmulatorDevice : Emulated Device
Device Vendor: Intel(R) Corporation
Is Device Available?: 1
Is Device Little Endian?: 1
Device Max Compute Units: 1
Device Max Work Item Dimensions: 3
Device Max Work Group Size: 2147483647
Device Max Frequency: 1000
Device Max Mem Alloc Size: 16859439104

Launching the kernel...

VERIFICATION PASSED!!!

Some Sample of Results
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Index 0: Input 1 is 840.187683, Input 2 is 394.382904, Result is 331355.656250
Index 819: Input 1 is 178.313919, Input 2 is 60.155670, Result is 10726.593750
Index 1638: Input 1 is 786.326111, Input 2 is 210.920334, Result is 165852.171875
Index 2457: Input 1 is 191.929123, Input 2 is 51.216774, Result is 9829.990234
Index 3276: Input 1 is 166.614273, Input 2 is 678.101318, Result is 112981.359375
Index 4095: Input 1 is 835.887024, Input 2 is 682.699341, Result is 570659.500000

```

4. Close Eclipse.

### Exercise Summary

- Created an ND Range Kernel
- Launched the kernel using enqueueNDRangeKernel

**Congratulations!**

**You have completed Lab 3**