SCIT

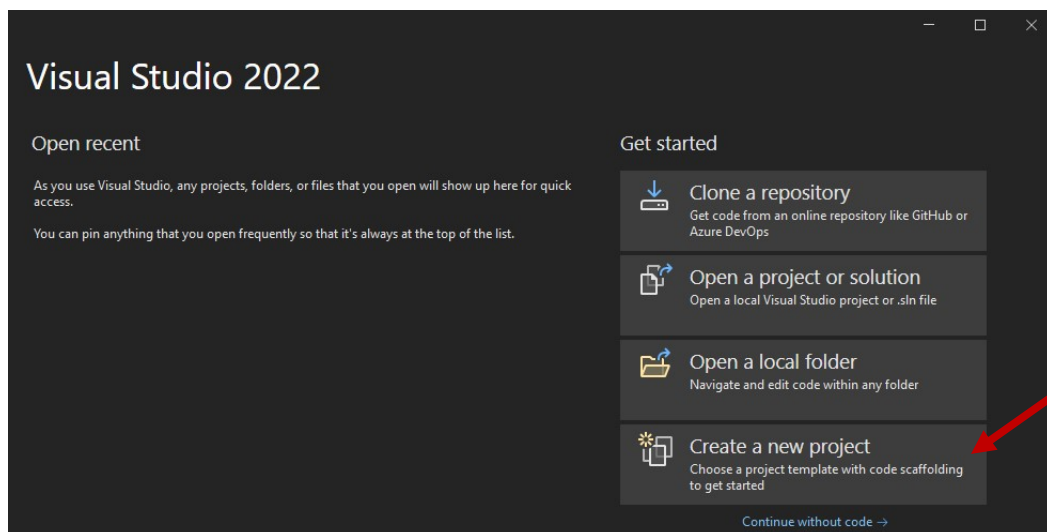**School of Computing & Information Technology**

CSCI376 – Multicore and GPU Programming

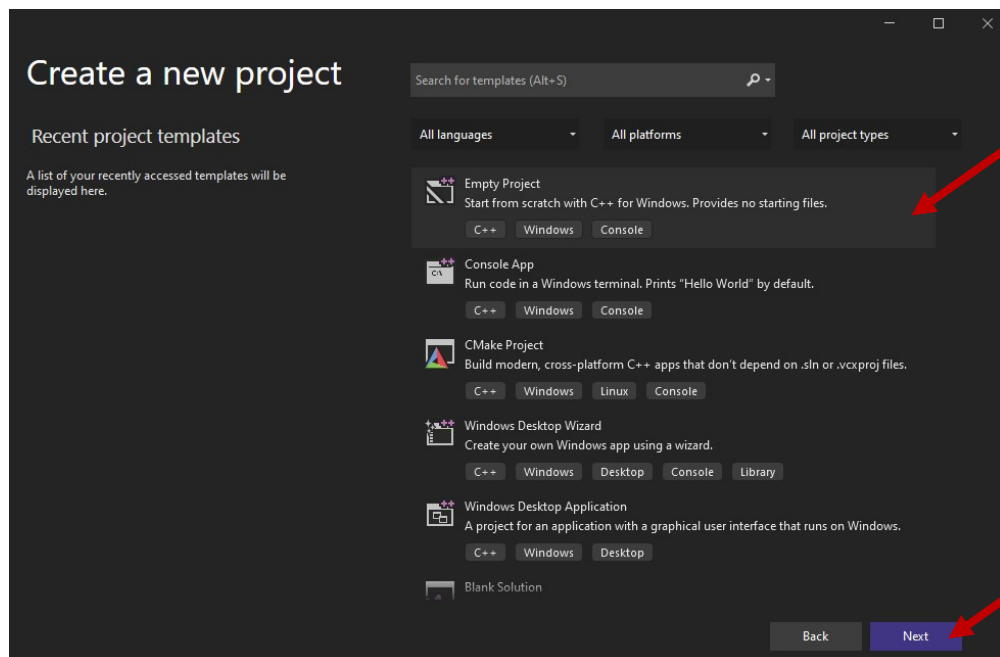## Setting up the Visual Studio Project Environment

This document will guide you in setting up a new Visual Studio project for using OpenCL with the AMD APP SDK. Make sure the AMD APP SDK folder is in C:\AMD APP SDK

Creating a New Project

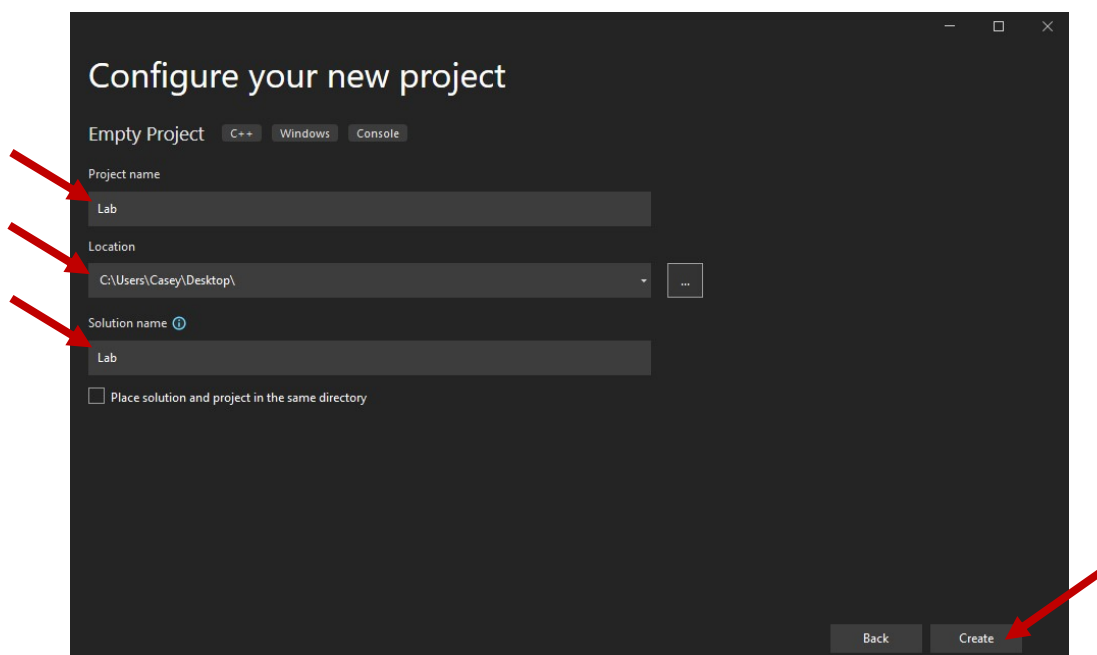Open Visual Studio. Select "Create a new project":

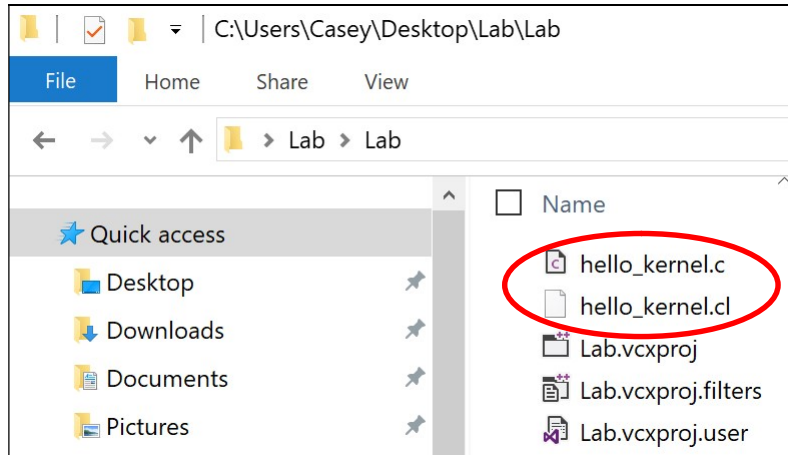Then select an "Empty Project" and click "Next".

Enter

- a project name
- a location where the project folder should be created
- a name for the project solution

then click "Create":

If you have existing files for the project, then put them in the newly created solution directory. For example:


Add existing files to the project by *right-clicking* on the appropriate folder in **Solution Explorer**. For example, if you want to add a source file, right-click on **Source Files → Add → Existing Item**, and select the appropriate file(s) to the project:
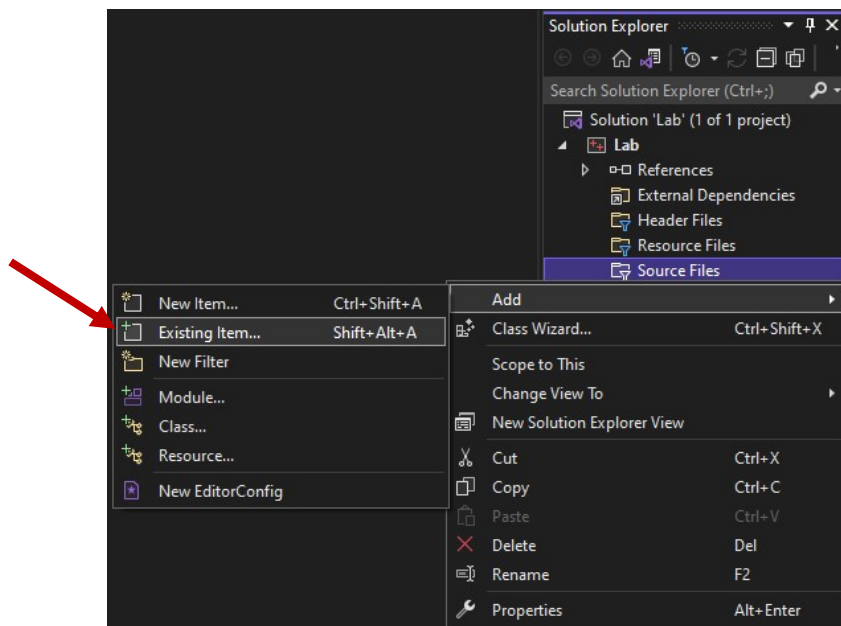
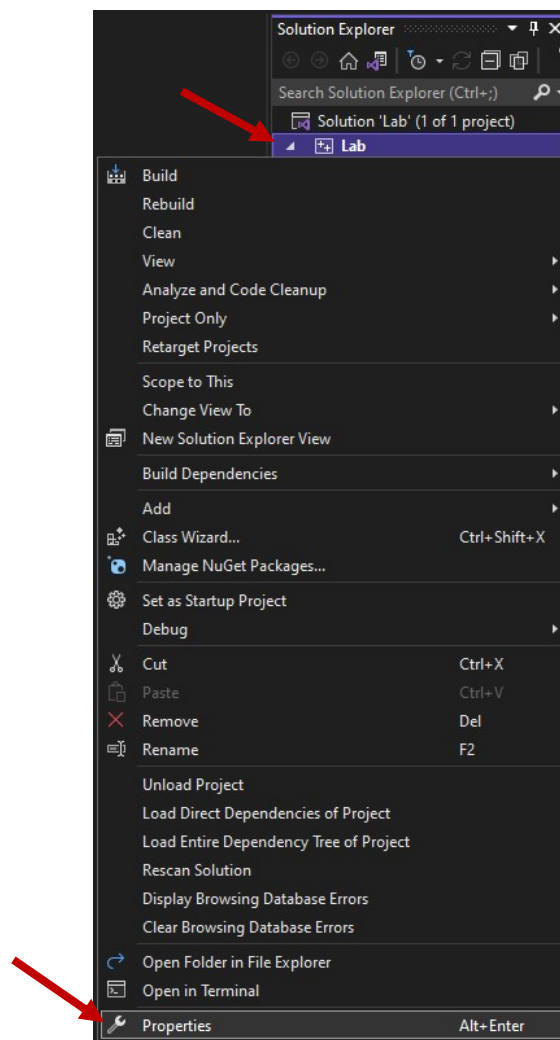Right click on **Source Files → Add → Existing Item**, and add the '*.cpp*' (or '*.c*' in this example).

Do the same for '*.cl*' files, but this time put these under **Resource Files**.

The content after adding the files should look like this:
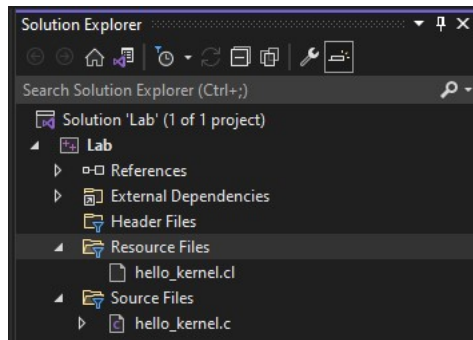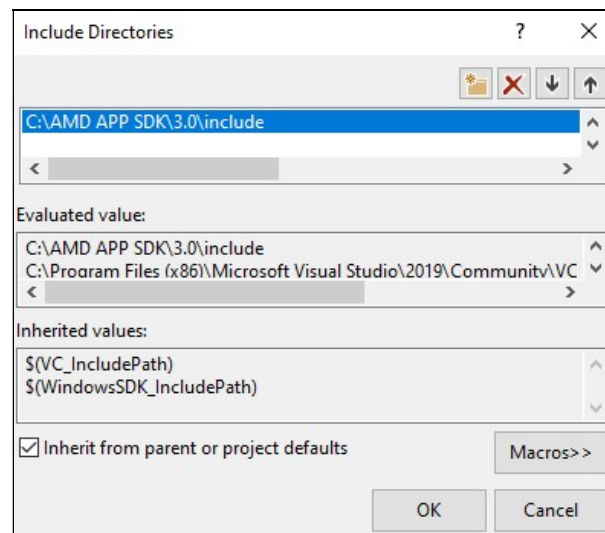

Setting Project Properties

Now open the project properties, by *right-clicking* on the project name and selecting **Properties**:

Apply the properties to all configurations by selecting "**All Configurations**" and "**Active(Win32)**".

Then, under **Configuration Properties → VC++ Directories**, under **Include Directories**, click ⌄ and select <Edit…>
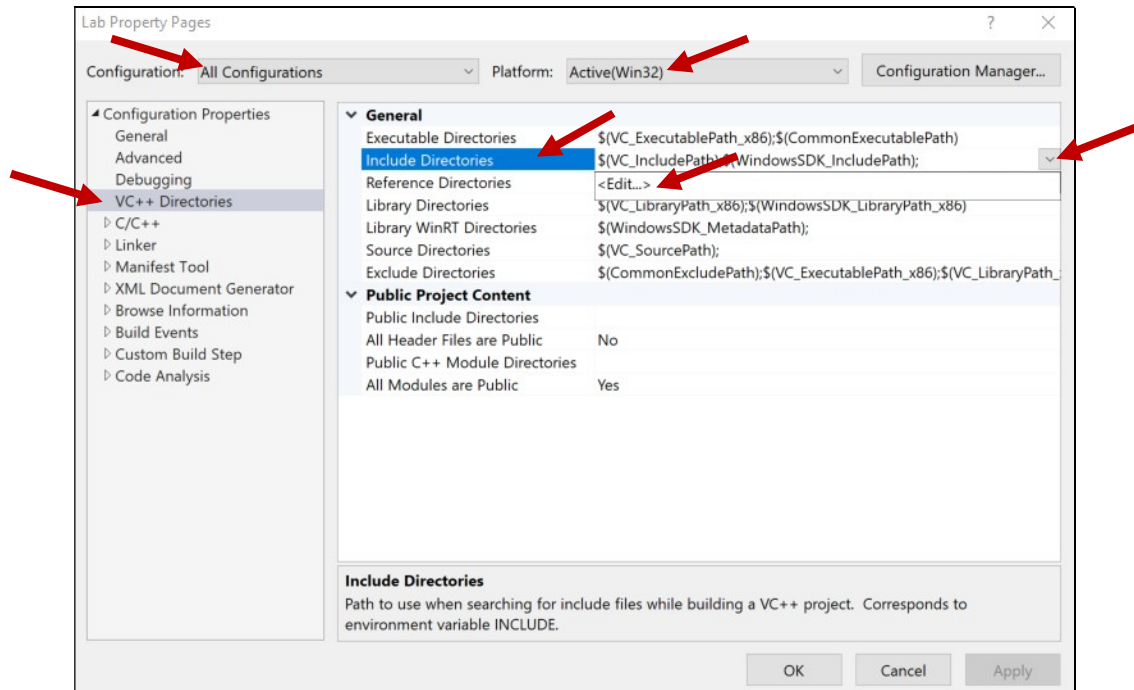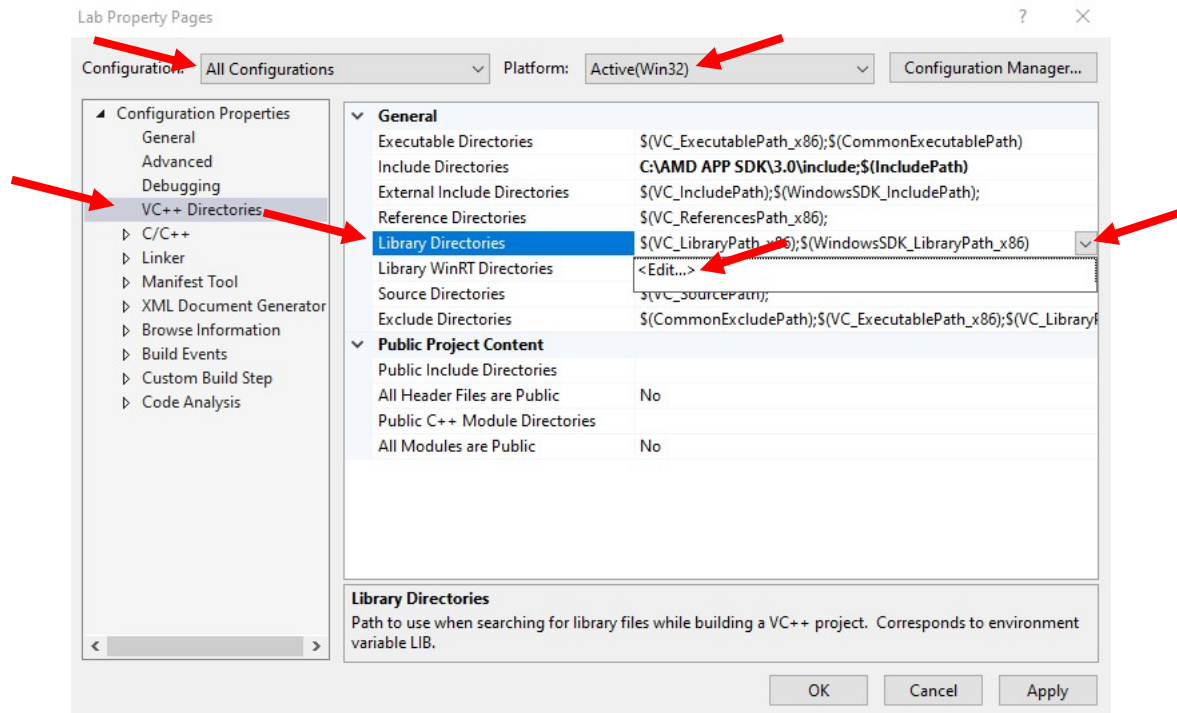

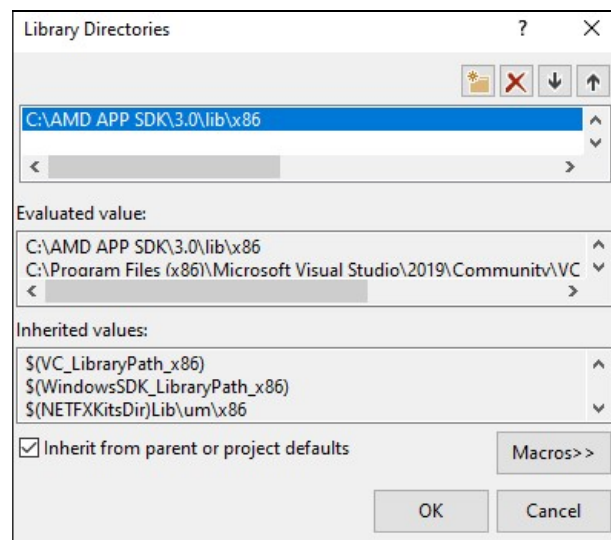Enter: **C:\AMD APP SDK\3.0\include**

Then click **OK**

This assumes AMD APP SDK is in your C: drive.

(Note that if you have the CUDA SDK installed, you can change this to $(CUDA_PATH)\include).
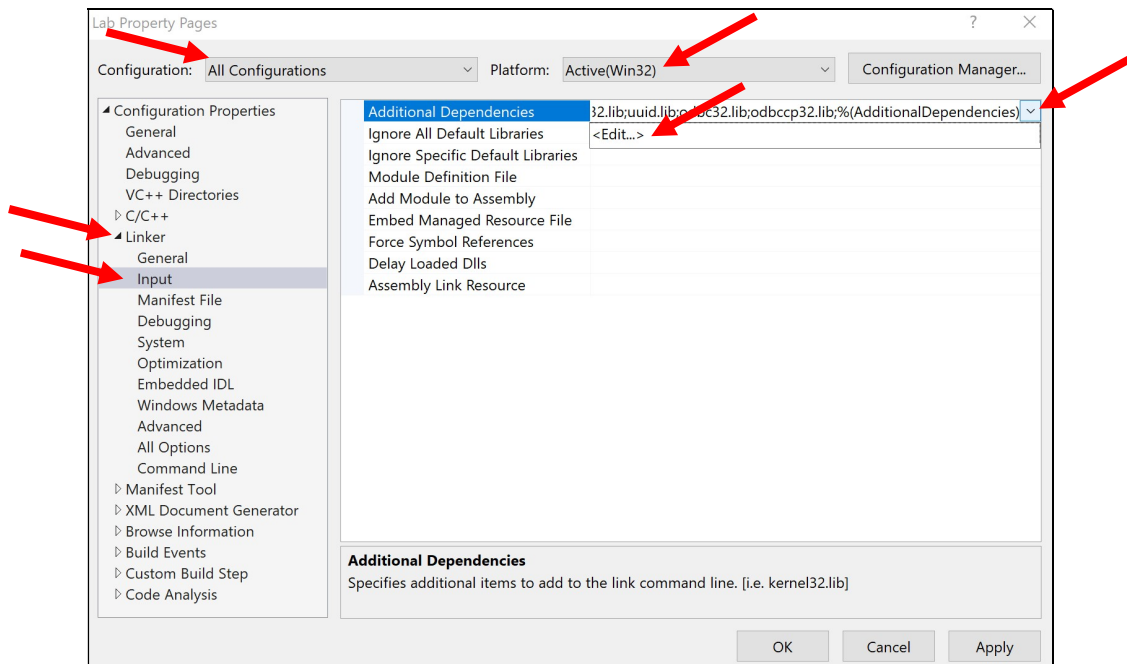
Then under **Library Directories**, click ⌄ and select <Edit…>
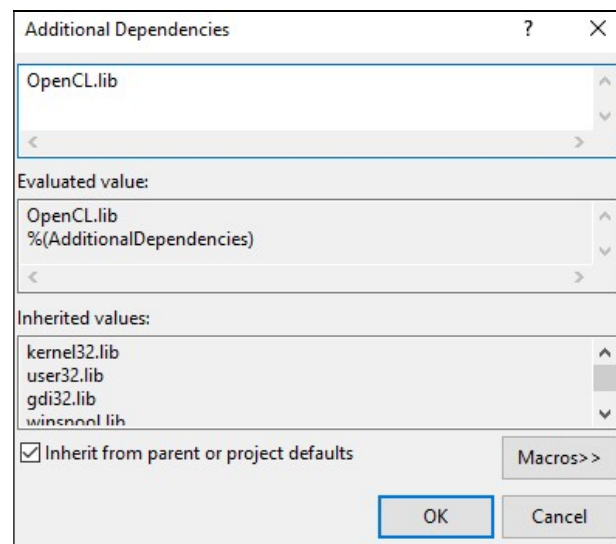

Enter: **C:\AMD APP SDK\3.0\lib\x86**

Then click **OK**

Next, under **Configuration Properties → Linker → Input**, under **Additional Dependencies**, click ⌄ and select <Edit…>
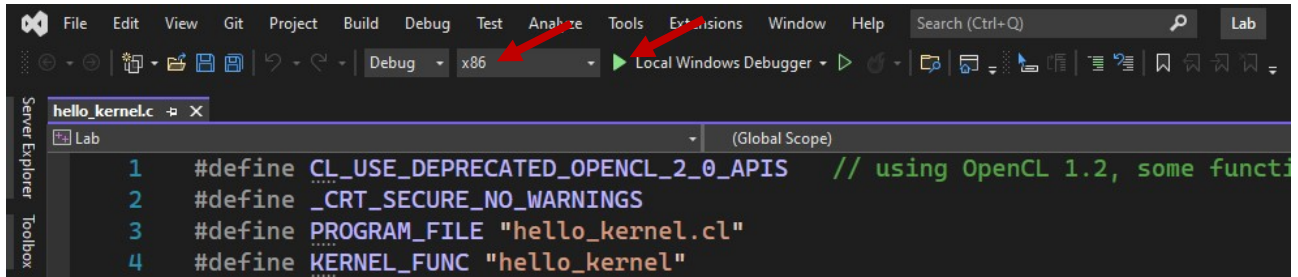

Enter: **OpenCL.lib**

Then click **OK**

Finally, click **Apply** and **OK**

That's it, done… not too difficult ☺

Compiling and Running

To compile and run the code, make sure "x86" is selected and click on the ▶ button:

The instructions provided in this document show you how to setup the visual studio project environment. However, in most examples provided in this subject, the projects have already been setup up for you.

Also, if you do not want to setup a new project every time you write an OpenCL program, you can use an existing project and just replace the source files (.cpp/.c/.cl) with new files.

A test project, which was configured based on the above instructions, has been provided.