These are the details for making visual studio work on a "new" (ARM) mac.

If you have already done some of these steps but not made it work properly, I would suggest that first you start just after the last step that you have reason to believe worked. If that doesn't lead to success then go right back to the beginning and start nice and clean all over again. (Except of course, don't buy parallels all over again).

Be careful to follow the instructions to the letter. In my experience, the training that music engineers get tends to encourage free-spiritedness, and not to consider all of the rules of the form to be carved in stone. I know that is the right way for musicians to work, I'm not criticising it at all. But you need to suspend that particular mode of existence when you're doing anything with technical in computing. Here, the rules are much stronger than merely carved in stone.

Everything below this paragraph was typed by somebody else until after step 13 where I have added something else. If you're unsure of an exact meaning, have a good hard think and try possibilities out. I haven't got a new mac, so the only way I can answer questions is by asking someone else, and that will be slow.

- 1. Parallels comes with a default version of Windows (We do not need to pay for license). It is an unregistered version but it will work as good.
- 2. These are the steps we can follow with respect to VS2019 or VS2022 (Community Edition)
- 3. Download and install Parallels. This software will enable your Mac to run Windows. Student vesrion of parallels can be purchased and downloaded from this link. <a href="https://www.parallels.com/landingpage/pd/education/">https://www.parallels.com/landingpage/pd/education/</a>
- 4. Run Parallels installation on your MAC. If it asks you to allow access to important folders such as Downloads, Desktop Kindly allow access.
- 5. During Parallel installation select Windows 11 (ARM) Version.
- 6. Open the Edge Browser in Windows 11 (After installation)
- 7. Download Visual Studio 2019 Community Version from this link. <a href="https://aka.ms/vs/16/release/vs\_community.exe">https://aka.ms/vs/16/release/vs\_community.exe</a> This takes around 10 15 minutes to download and install around 8 10 Gigs of software.
- 8. During installation of Visual Studio mention C++, Visual C++ development settings, if in case it prompts for modules to choose. If it does not ask just go on with the installation.
- 9. Then click on this link to download vs2019Project.zip. This is a repository from <a href="http://rabbit.eng.miami.edu/class/library/index.html">http://rabbit.eng.miami.edu/class/library/index.html</a> Visual Studio 2019 Zipped

## **Project**

- 10. Extract the zipped project into a folder. If you right click on the zipped project you should be able to find an Extract option and it will extract into a folder.
- 11. Right-Click on "libproj.sln" file after extracting and open with "Visual Studio 2019".
- 12. The project should open. On the Solutions Explorer Window (small window that has list of files) you can see the test.cpp file. Click on the file and open in the editor window.
- 13. Once the test.cpp file is loaded click on the "Run" (Green Arrow) to debug/run the file.

Referring to step 9. This is the way to get started, but there is an advantage to being able to create your own projects without having to rely on this zipped-up one. So once things are working, have a good try at creating your own project. I know this version of visual studio doesn't look at all like the ones we used when making the how-to guide, there must be a way to do it in there somewhere.