

## Compiling CS470.skel for MS Visual Studio:

Here are the steps to follow:

- Download Qt5.14.2 for Windows from here:  
<https://download.qt.io/archive/qt/5.14/5.14.2/qt-opensource-windows-x86-5.14.2.exe>
- During Qt installation:
  - Qt 5.14.2 works with Visual Studio Community 2022 or Visual Studio 2017 (don't use Visual Studio 2019). Select **Qt5.14.2 for msvc2017\_64** only.
  - You don't need the source code or other platforms.
  - By default, it will install it in C:\Qt\Qt5.14.2\5.14.2\msvc2017\_64.
- Add C:\Qt\Qt5.14.2\5.14.2\msvc2017\_64\bin to your path.  
Open a terminal and add the following variables to the system variables. This only needs to be done once:  

```
setx QTDIR C:\Qt\Qt5.14.2\5.14.2\msvc2017_64  
setx PATH %PATH%;" C:\Qt\Qt5.14.2\5.14.2\msvc2017_64\bin"
```
- You need to set the path for your compiler. For example, if you installed Visual Studio Community 2022:  

```
setx PATH %PATH%;"C:\Program Files\Microsoft Visual Studio\2022\Community\VC\Tools\MSVC\14.37.32822\bin\Hostx64\x64"
```

Note: if you are using a paid version of Visual Studio (Professional or Enterprise) find the location of cl.exe under C:\Program Files\Microsoft Visual Studio\2022 and adjust your path accordingly.
- Type "qmake -version" in a PowerShell terminal and make sure it is pointing to Qt5.14.2.
- Open a powershell or terminal in **CS470.skel** folder and type:  

```
>qmake -tp vc CS470.pro
```
- 5) Double click on **CS470\_HW.vcxproj**. It will load the project in VS 2022 or VS 2017. You can build, debug, and run within Visual Studio IDE.

## Compiling CS470.skel under Mac OS:

Here are the steps to follow:

- Download Qt5.14.2 for Mac from here:  
<https://download.qt.io/archive/qt/5.14/5.14.2/qt-opensource-mac-x64-5.14.2.dmg>
- During Qt installation:  
Select Qt5.14.2 for macOS only. You don't need other platforms or the source code.  
By default, It will install in home directory as /Users/"your user name"/Qt5.14.2
- Open .profile or .bash\_profile from your home directory in a text editor and add the following lines:  

```
export QTDIR=/Users/"your user name"/Qt5.14.2/5.14.2/clang_64  
export PATH=/Users/"your username"/Qt5.14.2/5.14.2/clang_64/bin:$PATH
```

Save the file and quit from terminal program and reopen it again.  
Type "qmake -version" and make sure it is pointing to Qt5.14.2.
- For compiling and building on M1/M2 based machines, make sure to have the following flags included in the CS470\_common.pro file:  

```
CONFIG += sdk_no_version_check  
CONFIG += c++11  
QMAKE_MACOSX_DEPLOYMENT_TARGET = 13.4
```

The last flag is dependent on your MacOS version. This example is assumed to be using MacOS 13.4. Use the number appropriate for your MacOS version.

- Open a terminal in **CS470.skel** folder and type the following commands to build your homework.

```
>qmake -spec macx-clang CS470.pro  
>make -j4
```

This creates CS470\_HW.app, which is the program that runs your homework implementation.

If you want to build and run within Xcode, type the following command:

```
>qmake -spec macx-xcode CS470.pro
```

This command creates an Xcode project (CS470\_HW.xcodeproj).