

CSC3002 24Fall Environmental Setup

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Qt Creator Installation

Qt Creator might be used in your lectures and tutorials. You may need this software to run and debug the provided sample codes.

Installation package

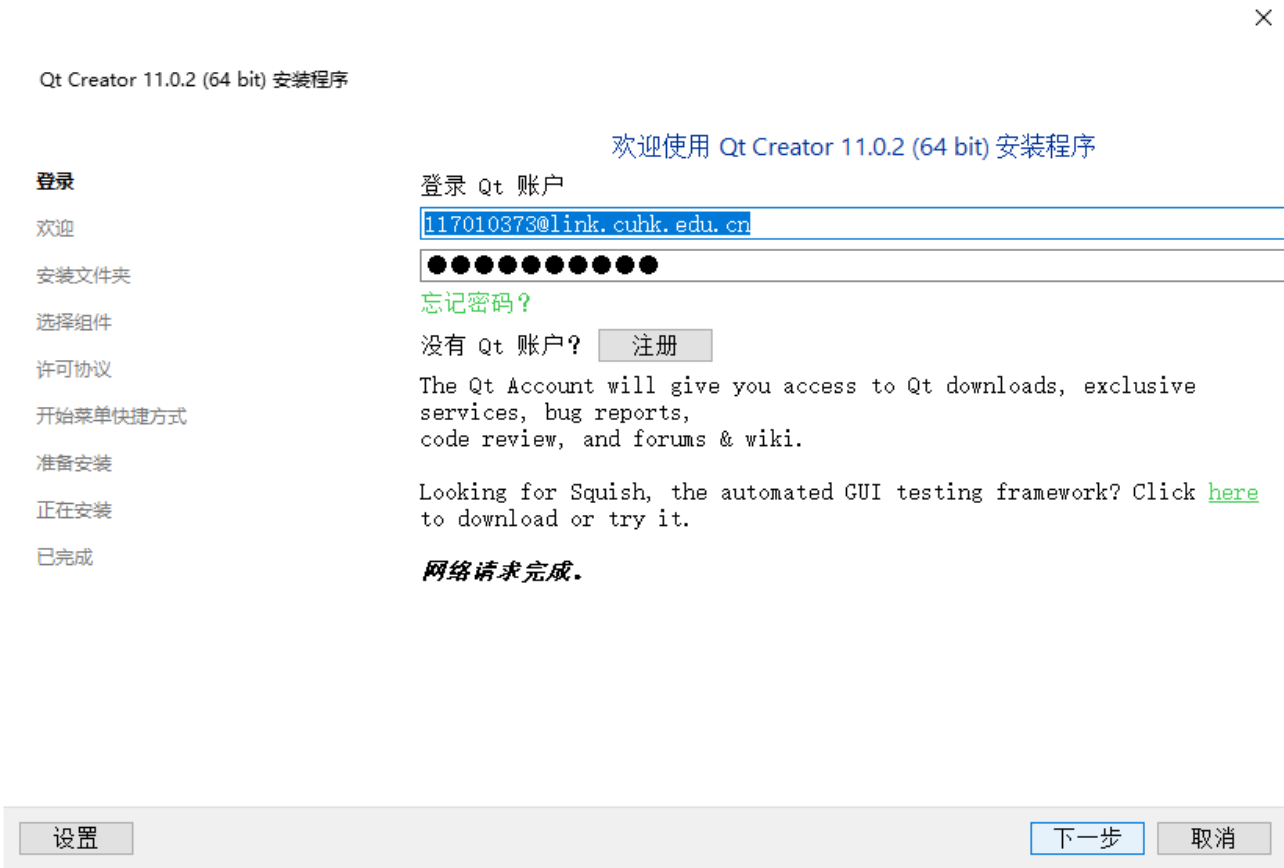
Go to <https://download.qt.io/archive/qt/> to download the installation package of the version you wish.

Set Qt Creator version 5.12.0 as an example.

- For windows users: download from <https://download.qt.io/archive/qt/5.12/5.12.10/qt-opensource-windows-x86-5.12.10.exe> .
- For Mac users: download from <https://download.qt.io/archive/qt/5.12/5.12.10/qt-opensource-mac-x64-5.12.10.dmg> .

Installation for Windows Users

1. Run the installation package. You may need to sign-up using your own email address.



2. You can customize the directory to be installed in. Remember to check the box to confirm you are an individual user unless you want to pay for it :)



3. You **MUST** click the checkbox labeled, **MinGW 7.x.x 64 bit**, which is absolutely crucial. If you forget to do this, your computer will not be able to compile and run C++ programs.

Qt 5.12.10 安装程序

选择组件

请选择要安装的组件。

默认(A) 全选(S) 取消全选(D)

Qt

Qt 5.12.10

☐ MSVC 2015 64-bit

☐ MSVC 2017 32-bit

☐ MSVC 2017 64-bit

☐ MinGW 7.3.0 32-bit

☒ MinGW 7.3.0 64-bit

☐ UWP ARMv7 (MSVC 2015)

☐ UWP x64 (MSVC 2015)

☐ UWP ARMv7 (MSVC 2017)

☐ UWP x64 (MSVC 2017)

☐ UWP x86 (MSVC2017)

☐ Android x86

☐ Android ARM64-v8a

☐ Android ARMv7

☐ Sources

☐ Qt Charts

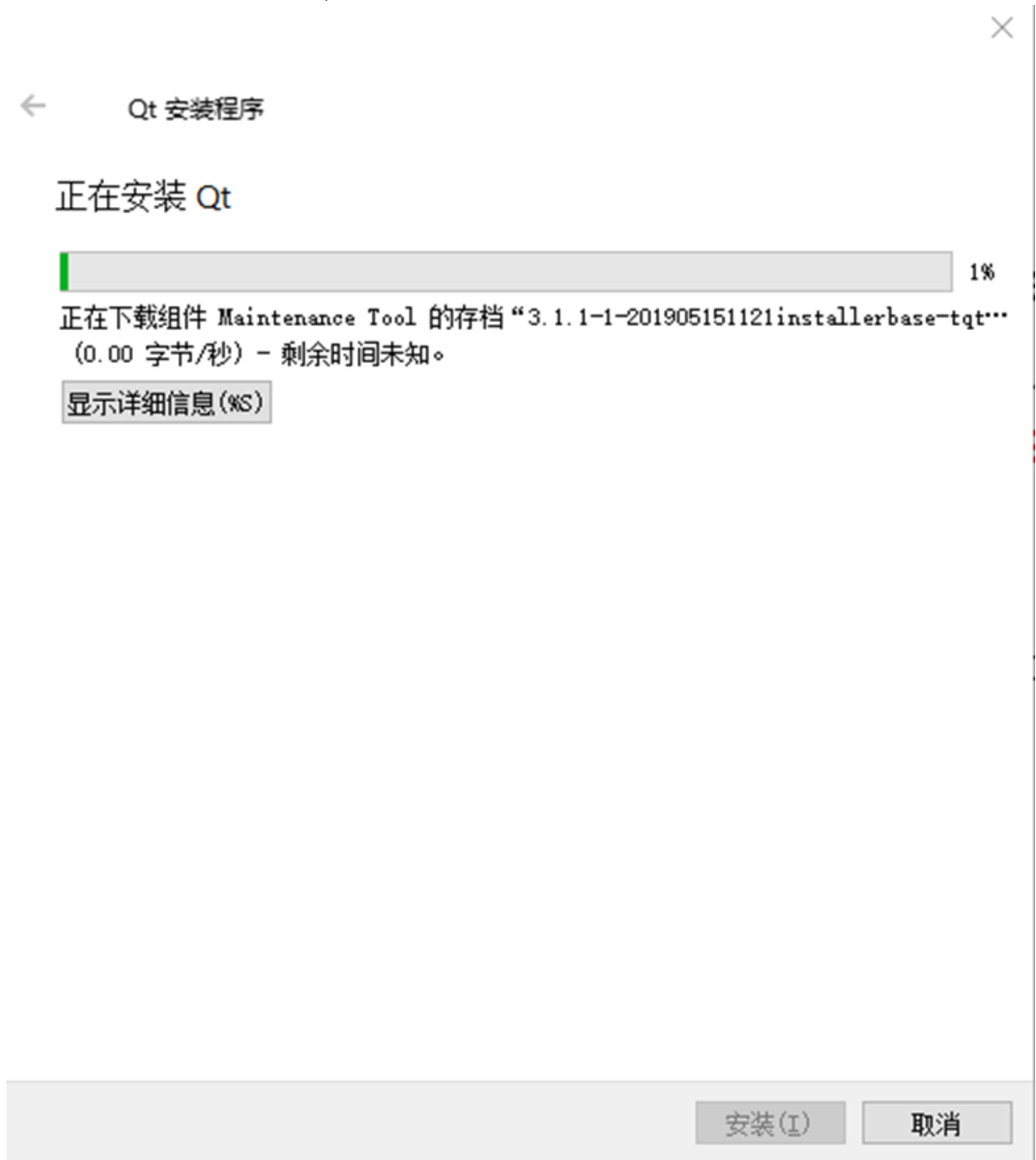
☐ Qt Data Visualization

此组件大约占用您硬盘驱动器 6.52 GB 的空间。

下一步(N)

取消

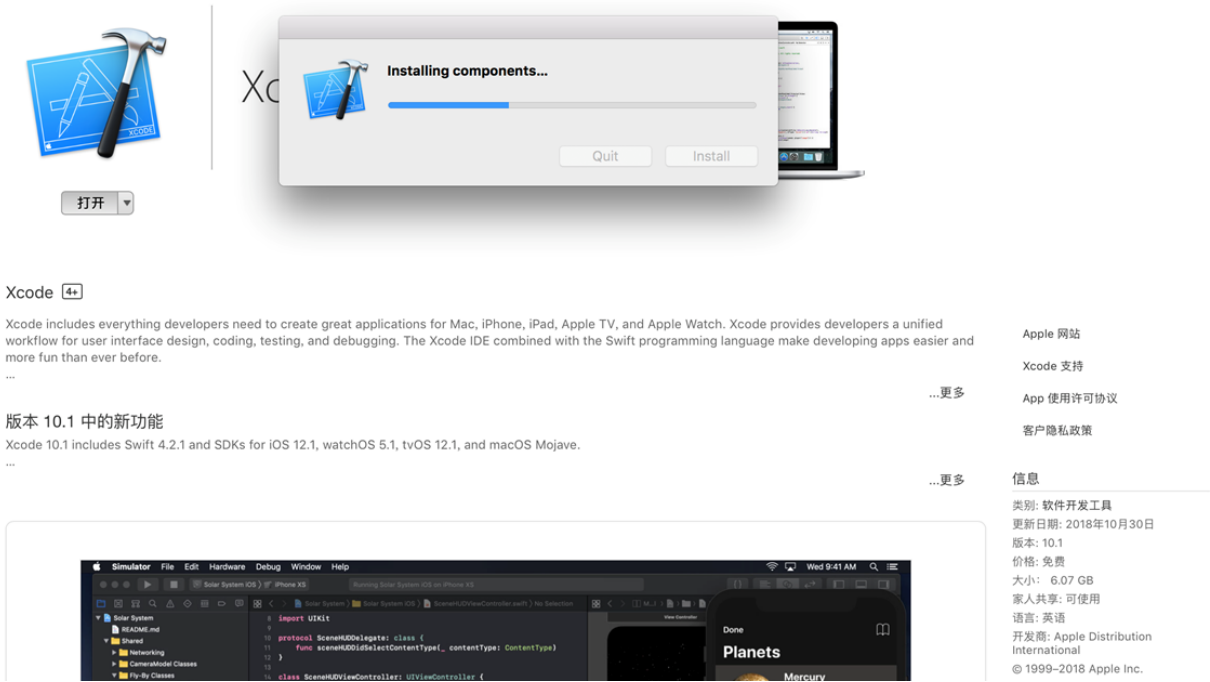
4. Wait until the installation is completed and launch Qt to confirm.



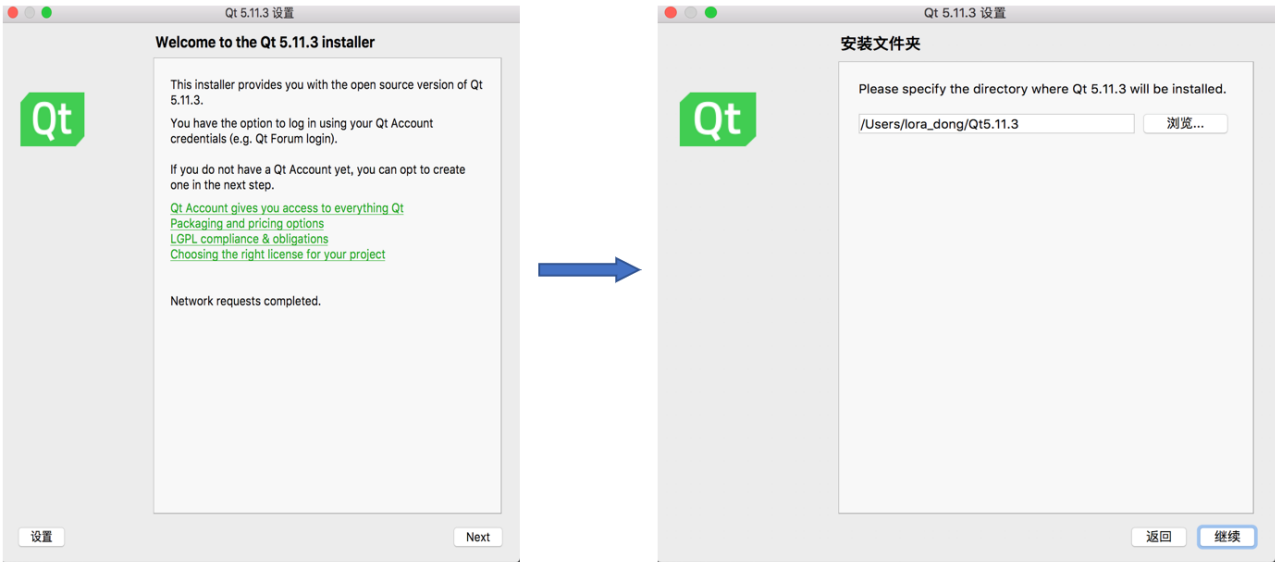
Installation for Mac Users (v1)

For Mac User whose system version < Big Sur, offline installation is recommended. Mac OS X requires you to install their Xcode system to get a C++ compiler on your machine.

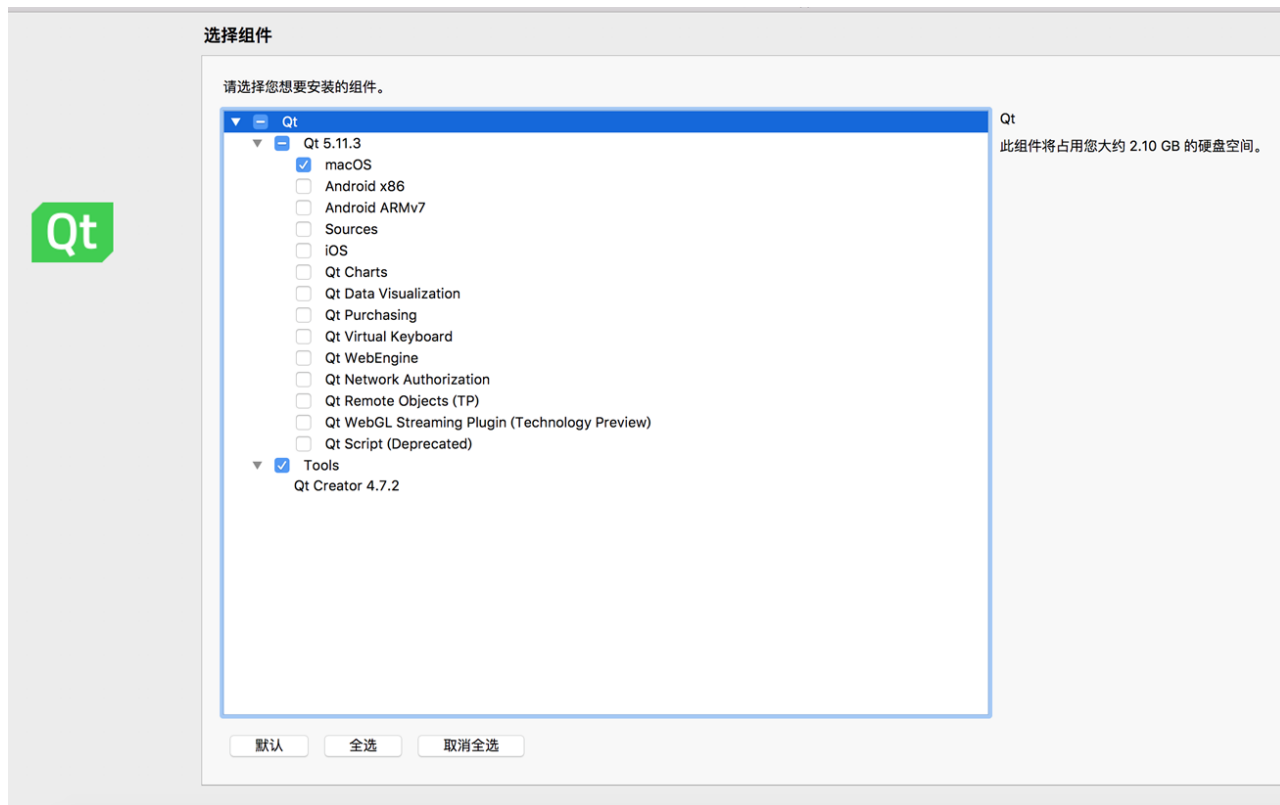
1. Visit Mac App Store, find the Xcode and download it.
2. Once your Xcode has installed, you have to actually **launch** the Xcode application one time in order to install certain essential components.



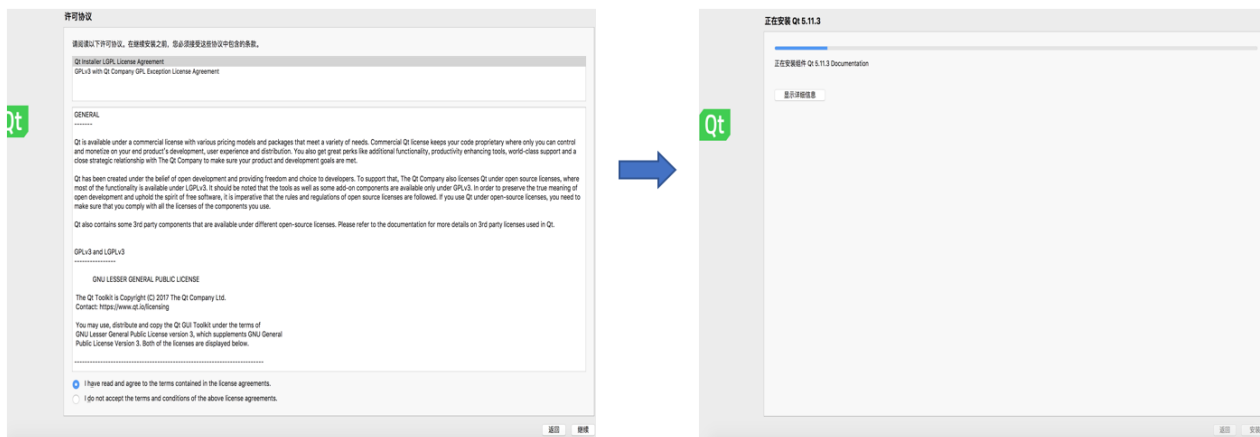
3. After you have downloaded the Qt Creator .dmg installer, double-click it to mount it and launch the enclosed installer application.



4. Skip the registration step, if possible. At the "Select Components" screen, you **MUST** install the MacOS Component. Uncheck every other checkbox except for "MacOS" if you don't have lots of disk space.



5. Press "Next" or "Agree" or "Install" to finish the installation. When the installation finishes, click "Done" to launch Qt Creator to confirm.



Installation for Mac Users (v2)

For Mac User whose system version \geq Big Sur, offline installation is recommended.

1. You are recommended to use the 5.15 version from the official website to download the online-installer. (<https://www.qt.io/download>).

2. Find "Download for open source users"- "Download Qt Online Installer.

Open source user?

Find out how you can use Qt under the (L)GPL and contribute to the Qt project.

Download open source >

Get Started

Due Diligence

Confirm that you can abide by the obligations of Qt open source licensing.

When deciding which license to use, please check your corporate open source policy or consult a software licensing legal expert.

Find more information on Qt licensing and open source obligations here.

Source Code

Set up your local development environment, get the Qt source code from the repositories, and build the libraries on your machine.

Grab the code at <https://code.qt.io/> or if you need help, the community not only contributes to Qt, but also to the Qt Wiki where you can learn how to get started.

Start Contributing

Qt source code repositories are open to the public, which means that you can immediately help guide and shape the future development of Qt by contributing code, translations, examples and more.

Learn what's involved when contributing to the Qt project here.

Looking for Qt binaries?

Find them in the Qt Online Installer. It will steer you to the right download version and help you install tools and add-on components that are available for your open source license.

Download the Qt Online Installer

3. Follow the steps below to install.

Qt

Welcome to the Qt online installer

Welcome

Setup - Qt

Installation Folder

Select Components

License Agreement

Ready to Install

Installing

Finished

Please log in to Qt Account

Forgot password?

Don't have Qt account? [Sign up](#)

The Qt Account will give you access to Qt downloads, exclusive services, bug reports, code review, and forums & wiki.

Next >

Qt

Qt Open Source Usage Obligations

Welcome

Open Source Obligations

Setup - Qt

Installation Folder

Select Components

License Agreement

Ready to Install

Installing

Finished

Qt Open Source version is available under GNU General Public License v3 and Lesser GNU General Public License v3. A few components are available under GNU General Public License v2. Please read and accept the Open Source Usage Obligations below. Reading the link below helps you choosing the right license for your project.

Choosing the right license for your projects

[Buy Qt](#)

(Lesser) GNU General Public License v3 obligations

- You must not combine code developed with a commercial Qt license with code developed with an open source license of Qt in one project or product
- Provide a license copy & explicitly acknowledge Qt use
- Make a Qt source code copy available for customers
- Accept that Qt source code modifications are non-proprietary
- Make consumer devices, which allow users to access to install and run modified versions of the SW inside them
- Accept Digital Rights Management terms, please see the GPL FAQ

☒ I have read and approve the obligations of using Open Source Qt

Please enter your company/business name:

☒ I am an individual person not using Qt for any company

< Back Next >

Qt

Setup - Qt

Welcome

Open Source Obligations

Setup - Qt

Installation Folder

Select Components

License Agreement

Ready to Install

Installing

Finished

Welcome to open source Qt setup.

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Qt

Contribute to Qt Development

Welcome

Open Source Obligations

Setup - Qt

Contribute to Qt Development

Installation Folder

Select Components

License Agreement

Ready to Install

Installing

Finished

Help us improve Qt and Qt Creator by allowing tracking of pseudonymous usage data in Qt Creator. The tracking can be disabled at any time.

Read the Qt Company [data collection privacy statement](#).

☐ Help us to improve by enabling sending pseudonymous usage statistics in Qt Creator

☒ Disable sending pseudonymous usage statistics in Qt Creator

< Back Next >

Qt

Installation Folder

Welcome

Open Source Obligations

Setup - Qt

Contribute to Qt Development

Installation Folder

Select Components

License Agreement

Ready to Install

Installing

Finished

Please specify the directory where Qt will be installed.

Browse...

☒ Custom installation
User selectable packages. Host platform and developer license restrictions apply.

☐ Design Tools
Qt Design Studio

☐ Qt 6.1 for desktop development
Qt libraries for clang

☐ Qt 6.1 for mobile development
Qt libraries for Android and iOS - platform restrictions apply

< Back Next >

Qt

Select Components

Welcome

Open Source Obligations

Setup - Qt

Contribute to Qt Development

Installation Folder

Select Components

License Agreement

Ready to Install

Installing

Finished

Please select the components you want to install.

Default
Select All
Deselect All

Select Categories

☐ Archive

☐ LTS

☒ Latest releases

Preview

Qt 5.15.2

sha1: 9b43a43ee96198f

This component will occupy approximately 926.20 MB on your hard disk drive.

☒ Qt 6.2.0-beta4

☐ Qt Design Studio 2.2.0-community-beta

☐ Qt Creator 5.0.0-rc1

Additional libraries

☒ Qt

☐ Qt 6.1.3

☐ Qt 6.0.4

☐ Qt 5.12.11

☒ Qt 5.15.2

☒ WebAssembly

☒ macOS

☐ Android

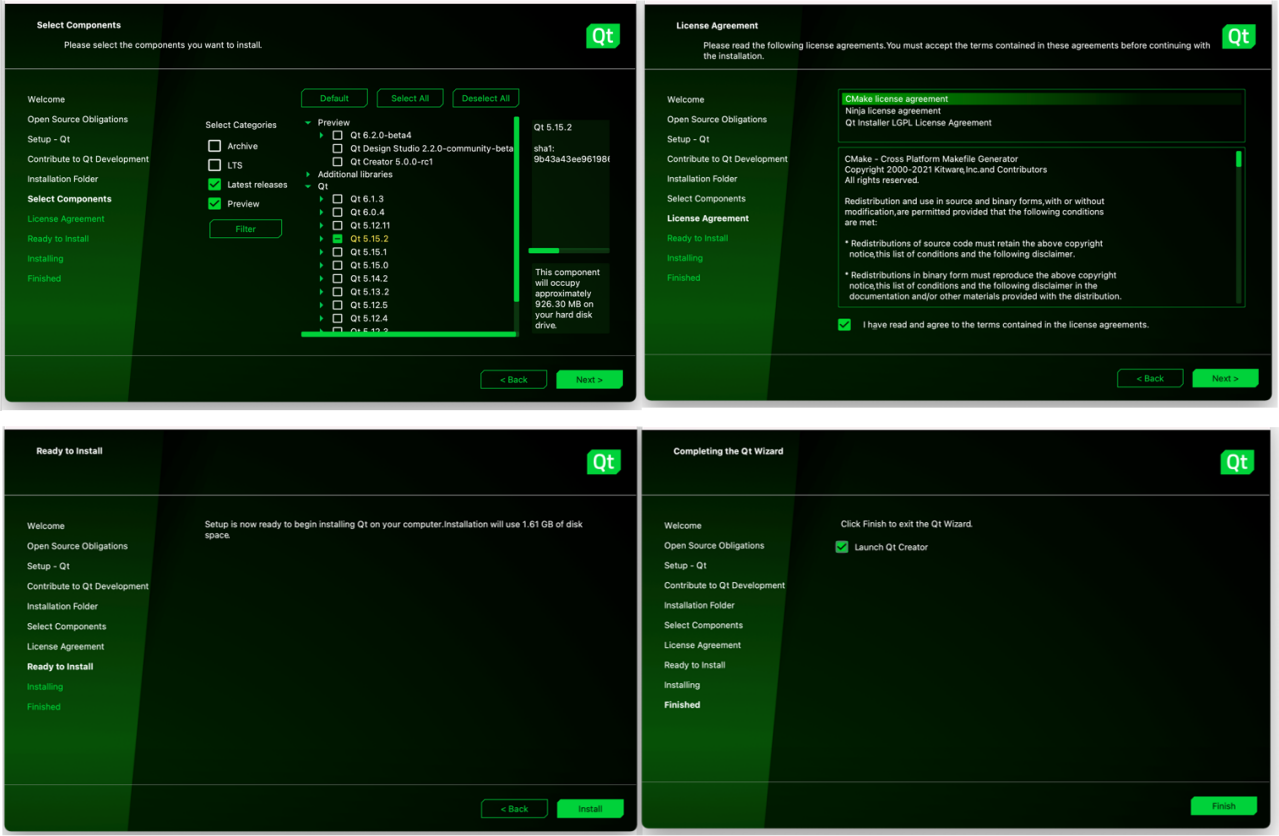
☐ Sources

☐ iOS

☐ Qt Charts

☐ Qt Quick 3D

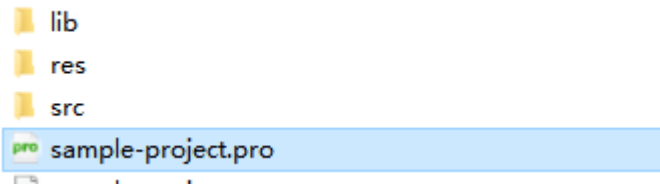
< Back Next >



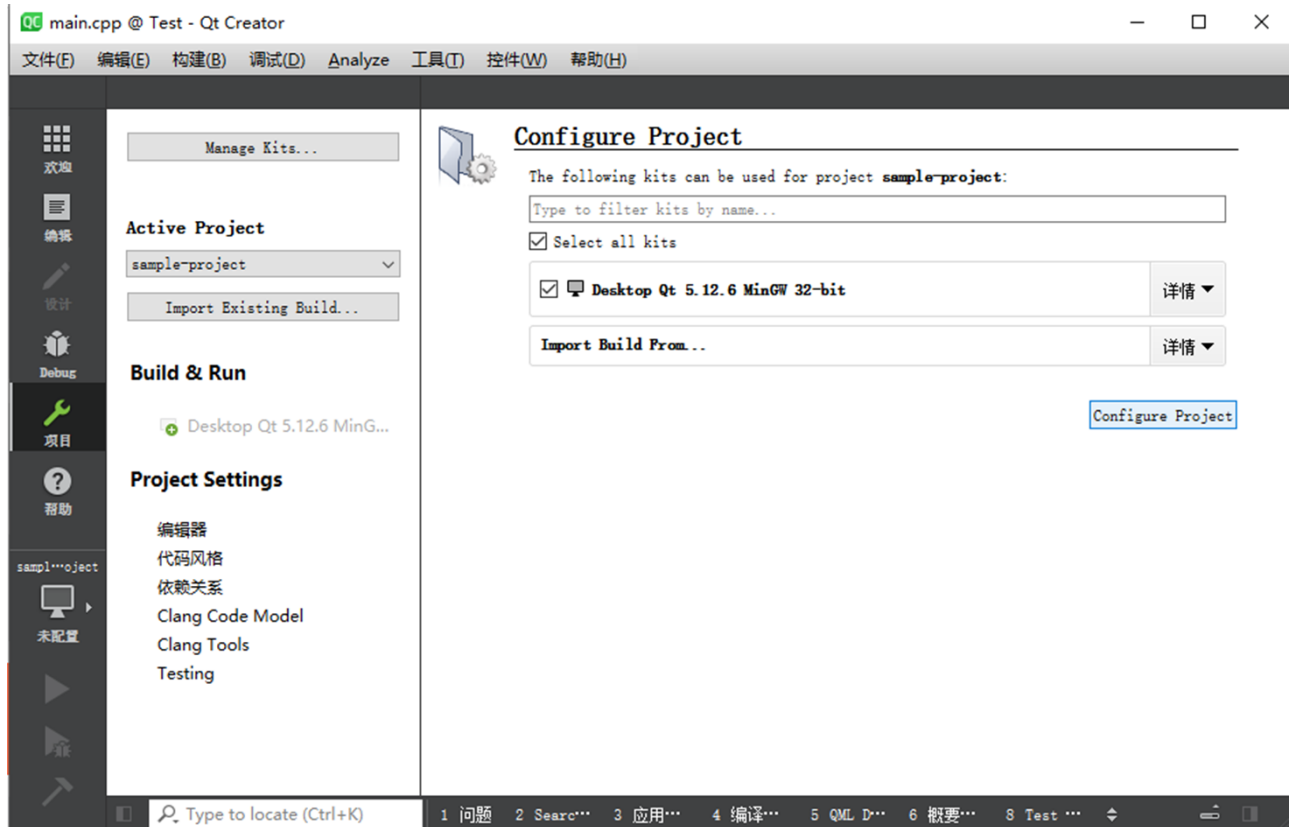
Installation of Stanford C++ Library in Qt

You may need Stanford C++ Library to run sample codes form the textbook.

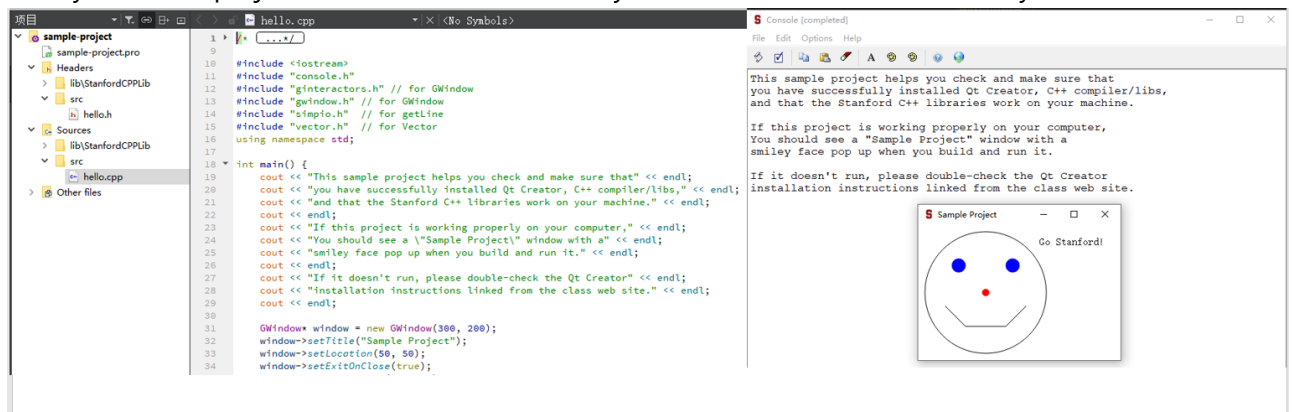
- 1. You are provided with a sample-project that is equipped with the library.



- Double click the .pro file to launch Qt, and configure project.



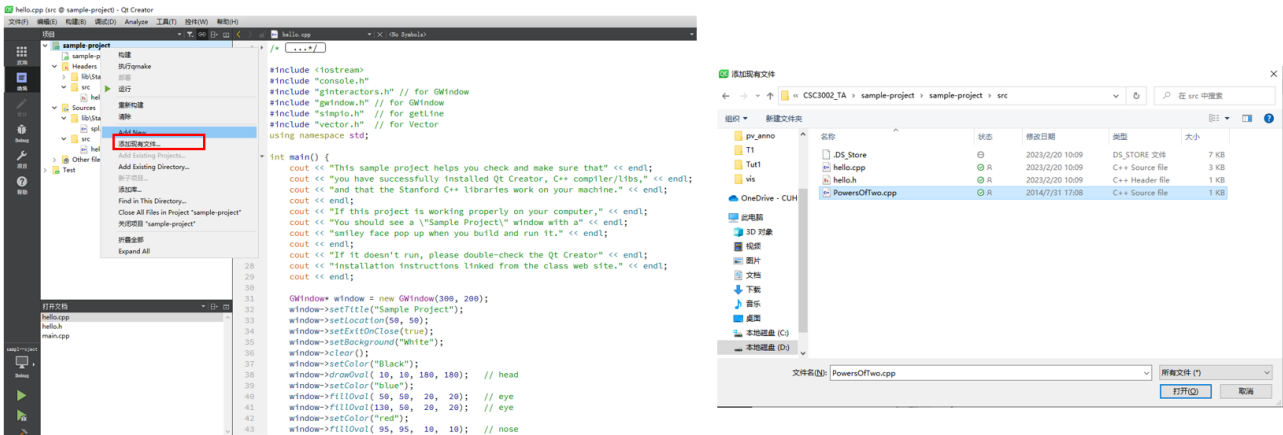
- Now you have a project with Stanford C++ Library. You can build and run it directly.



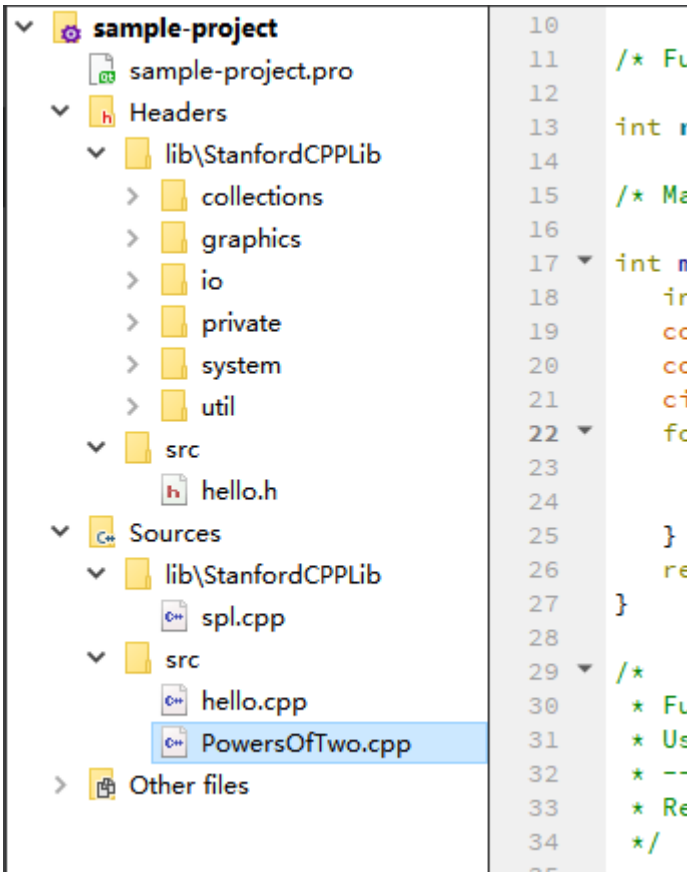
To further utilizing this project, you can 1) change the project name, 2) change the code in the main.cpp and 3) add new files in the project.

NOTE: directly adding file into the project or importing files into the src directory might not be successful. Try:

- Import the file you need to add into the sample-project/src directory
- Add the new file to the project in Qt: right click the project name - add existing files - select the file and confirm



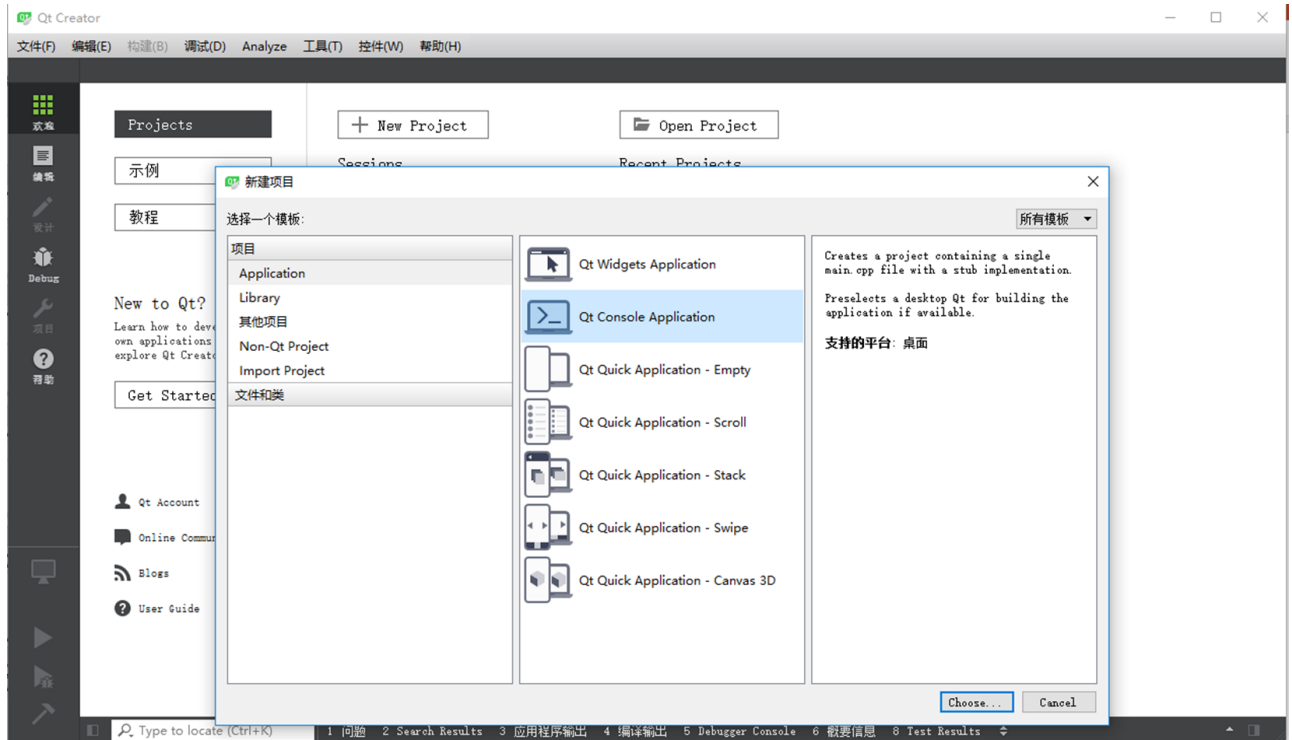
This indicates the operation is successful.



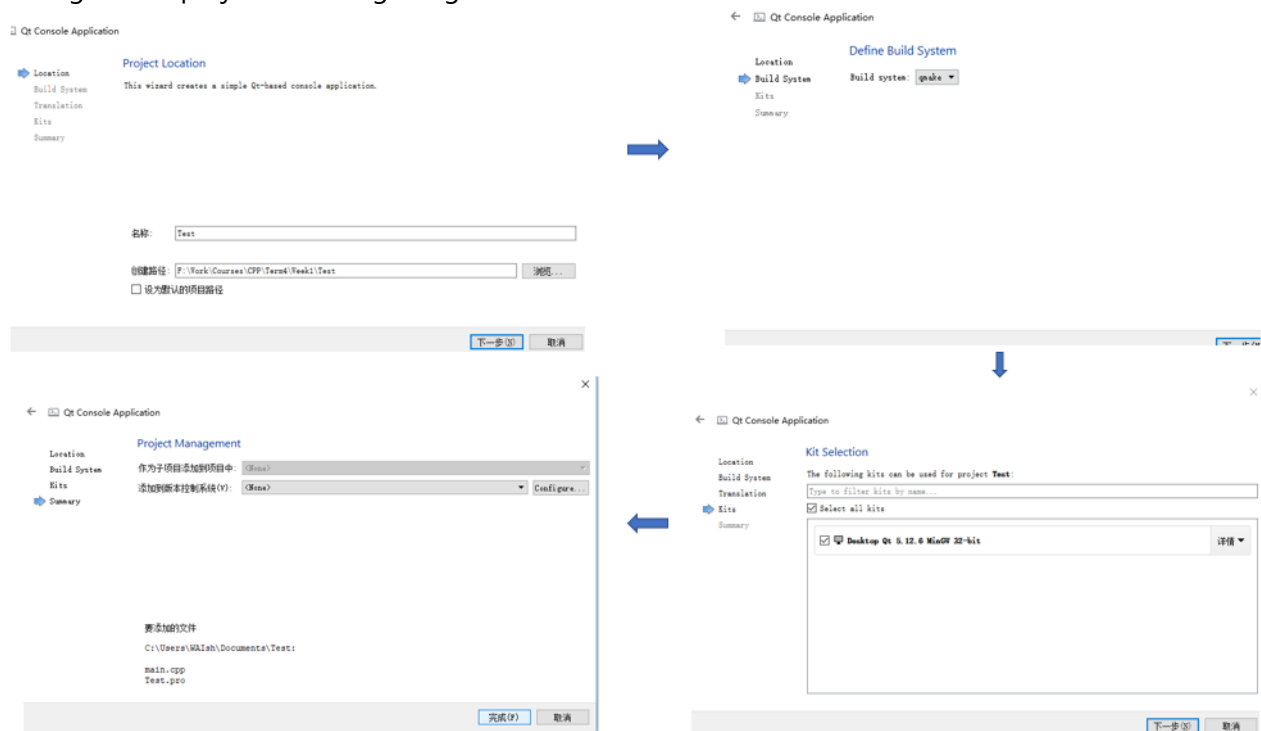
Creating Qt project using existing source files

Our assignments will offer you the .cpp and .h file of each problem. This procedure is important since it will be used in your assignments. You will need to construct your project to complete each problem.

1. Create a Qt Console Application



2. Configure the project following the guide



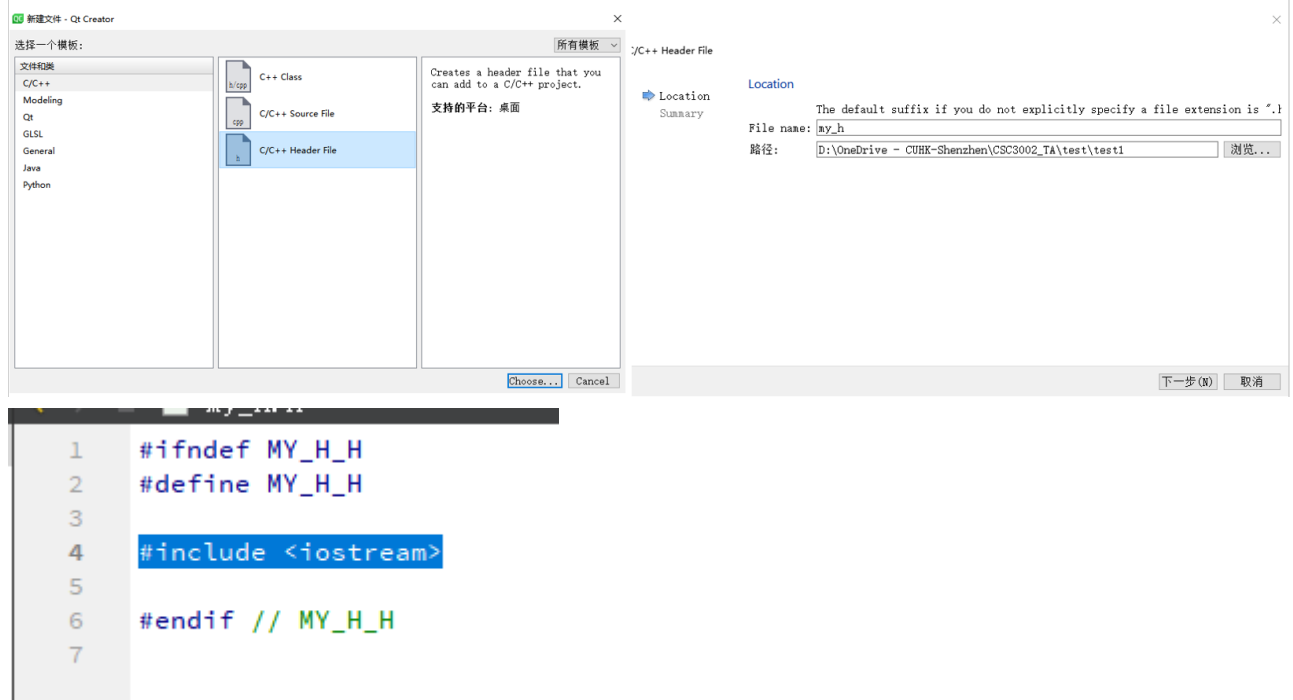
3. The default main.cpp file includes "Q" modules. However, we do not need it for now. You can directly paste the code to replace the default main.cpp.

```

1  #include <string>
2  #include <iostream>
3  using namespace std;
4
5  int main() {
6      cout << "Hello World!" << endl;
7      return 0;
8  }
9

```

4. To add the header file, you can either construct a new headerfile and paste it:



Or you can add an existing header file, which procedure is exactly the same as "adding an existing file" in the last section.

5. Run the program to confirm

