

Screen Capture Video Tools

You can use any tool for your video. However, your video has to be about 50MB or smaller once compressed using zip. You can submit up to two separate videos if needed, thus keeping the size to that limit. Each video should be submitted in a separate zip file.

Some video applications create huge files by default, for example the free QuickTime so you won't be able to use it. If you have the Pro version, you can use compression settings to make the file smaller.

If you are not sure what to use and want something easy to use, I suggest

- **Screencast-o-matic**. It allows 15min videos for free and by default it creates nice small files that can be uploaded to Moodle. <https://screencast-o-matic.com/>

If you are using another tool and it is generating too big files, check the settings that are available. You can export video to MP4 which is smaller than other formats or you can use some tools online to convert to MP4. When recording, you can select the lowest resolution available, for example: 640x480 and you can reduce the frame rate (frames per second). This will result in smaller files being generated.

Development Tools

You are free to use any compiler and IDE for your programming assignments as long as it is for Python, Java, C#, or C++. Here is a list of some free applications you can use....

Java

Eclipse is free and easy to install and use as IDE for Java

1. If you do not have JRE already installed on your computer, you will need to download it and install first from:
 - a. <http://www.oracle.com/technetwork/java/javase/downloads/jre8-downloads-2133155.html>
 - b. Look for the correct installable for your system. For my Windows system I selected jre-8u131-windows-i586.exe (saved and then ran it).
 - c. Installation instructions are at https://docs.oracle.com/javase/8/docs/technotes/guides/install/install_overview.html
2. Then go to <http://www.eclipse.org/downloads/eclipse-packages/> and download Eclipse IDE for Java developers
3. unzip the file (I use 7zip free from <http://www.7-zip.org/download.html> and keep my eclipse in C:\Program Files (86)\eclipse-neon)
4. run eclipse.exe in the subdirectory
5. select a workspace where your projects data will go
6. When welcome screen comes up, click on Tutorials icon
7. Follow the instructions for the create hello world application to make sure it all works correctly

Python

You can download Python interpreter and use it from command line or download a free IDE as well

1. To install Python go to <https://www.python.org/> and hover on Downloads. Select the Python version to use. Select 3.x version, download file, execute it and follow instructions
2. There are many free Python IDEs you can use. One good one is PyCharm at <https://www.jetbrains.com/pycharm/> . You can use the Free Community version that has everything you will need. download file, execute it and follow instructions
3. Installation instructions can be found on the download page once you select community version
4. Once you click on and run PyCharm, you can click on new project, give it location for where you want the files to be saved, and you need to provide the path where you installed python

C++

There are also a number of options for C++

If you are familiar with Eclipse for Java, you may want to try Eclipse for C/C++:
<http://www.eclipse.org/downloads/packages/eclipse-ide-cc-developers/oxygen2>

You will also need to install compiler to use Eclipse C++ and when create project In "Toolchains" box, you will choose your compiler, e.g., "Cygwin GCC" or "MinGW GCC" and make sure you install packages for gcc, g++, and make
<https://gcc.gnu.org/install/binaries.html>

Some other free IDEs:

The Dev C++: <http://www.bloodshed.net/dev/devcpp.html>

Digital Mars: <http://www.digitalmars.com/>

NetBeans (there is NetBeans for Java too): <https://netbeans.org/features/cpp/index.html>