# Secure access to a copy of Visual Studio:

In order to successfully complete this class, you'll need to have access to a copy of Visual Studio, or Visual C# Express. The designated textbook, unfortunately, does not contain a copy of this program. At this point, you have a number of options:

1. Cascadia community college provides free access to computers in the computer labs, and in the hallways, that have Visual Studio installed on them. If nothing else works you can at least come to school and write your code here.
2. The full, professional version can be downloaded for free from <http://www.dreamspark.com>. Yep, that's right – for free!   
   This "Pro" version contains all the languages (C#, Visual Basic, F#, etc) and software to develop ASP.Net. They will verify that you're actually a student by sending a link to your Cascadia email address. Once you've got this all set up you can download CD or DVD-ROM images (.ISO files)
   1. One option for installing VS Pro from the .ISO files is to burn a CD/DVD, then install it like any other CD/DVD-based installer.
   2. Another option (that does NOT involve burning a disc) is to use software to mount the .ISO file as a virtual CD/DVD drive, then install it from there. Essentially you'll be telling Windows to *pretend* like the .ISO file is in a drive (the so-called virtual drive), and then install it from there.
      1. People have reported success with this approaching using the (free) software named "Virtual Clone Drive", as well as "Daemon Tools" and "MagicISO"
   3. Windows 8 (apparently) has the ability to mount an .ISO as a virtual drive. This feature is built into Win8 and doesn’t require any extra software. You will need to Google around for instructions on how to do this.
   4. Yet another option is to extract all the installation files out of the .ISO file, and then install VS from the hard disc.
      1. People have reported success with this approaching using the (free) software named " WinRAR ", as well as "Peazip".
      2. It looks like "7-Zip" can do this too, although I haven't actually tried it myself
   5. *(In addition to Visual Studio, you can download several other full, professional Microsoft programs from Dreamspark, including the Expression Web suite (which is similar to Dreamweaver), MS SQL Server, and several types of Windows Servers. )*

1. Visual C# Express edition can be downloaded for free from Microsoft's website (<http://www.microsoft.com/express/Downloads/#2010-Visual-CS>). The website also promises a seamless upgrade to the Professional/full version (which is named "Visual Studio"), should you decide to go that route later.
   1. Please note that Microsoft's full-featured development environment is named "Visual Studio". Visual C# Express is really just a subset of the full Visual Studio, and so you can think of them as \*almost\* being the same product. Because of that (and since Visual Studio is more commonly used in industry than the 'Express' edition), throughout this course, any reference to "Visual Studio" should also be taken to mean "Visual C# Express".
2. Cascadia Community College makes available a computer which you can connect to over the network and remotely operate as if you were sitting in front of it. You can use this computer to run Visual Studio. The advantage to this approach is that you don’t have to figure out how to install the software on your local computer. The big drawbacks are that it’s slow to establish the connection, the computer forgets all your settings each time you log out (so you’ll need to set up Visual Studio each time you want to work, which takes a while), you’ll need to figure out how to upload files to the computer and then download them when you’re done, and that the computer will erase any files you leave on the computer when you log out. Still, it might be handy as a stop-gap measure if you can’t use your computer for some reason.
   1. Technically you’re actually connecting to a virtual computer that’s running inside a server, not to a real, physical computer. This is done using a technology known as VMWare Views.
   2. I’m not sure what limits there are to the number of virtual computers that Cascadia can run at the same time. **If too many other students try to connect to these Views at the same time you may not be able to connect!**
   3. There is a separate document that walks you through the process of downloading and installing the VMWare Views. It should be located on the website very close to where you found this document.
3. Lastly, you may have access to Visual Studio through other means or other channels (such as legally purchasing from a friend who works at Microsoft, from the campus bookstore, from Cascadia's MSDNAA (MSDN Academic Alliance) subscription, etc).

An important note about the video-game based exercises/homework assignments:

* If you want to do the XNA (game-based) assignments and exercises in this course, you will need to download Microsoft XNA Game Studio 4.0 from <http://www.microsoft.com/downloads/en/confirmation.aspx?FamilyID=9ac86eca-206f-4274-97f2-ef6c8b1f478f>
  1. It appears that if you've already downloaded the full, professional version (or the C# Express version) of Visual Studio then downloading and installing XNA Game Studio 4.0 will *add XNA to your existing Visual Studio*.
  2. Windows 8 will not allow XNA Game Studio to be installed by itself. Instead, you must first install the Windows Marketplace Client (<http://www.xbox.com/en-US/LIVE/PC/DownloadClient>) THEN install XNA Game Studio 4.0.
  3. XNA normally only works in VS 2010. You can get it to work in VS 2012 or VS 2013 by following the [very helpful directions in this blog post](http://dementedvice.wordpress.com/2013/10/21/let-me-explain-install-xna-on-visual-studio-2013-and-2012/).

If you have your own, personal computer with Visual Studio installed (any version) you are encouraged to use that; if you don't, then you'll need to use the computers on Cascadia's campus. In any event I will try to help you as much as I can in order to resolve any issues that you have.

Once you have obtained the software, I would recommend trying Visual Studio out. The "Simple Console Application" exercise will walk you through the basics of creating a simple, C#, console application.

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| An important note on pasting stuff from Word into Visual Studio:Please keep in mind that Microsoft Word will sometimes use smart quotes in order to make things look better. Visually, a smart quote is tilted in the direction that one would normally do so, if one was writing this out by hand -- the opening quote tilts leftwards, and the closing quote tilts rightwards. Similarly, what appears to be a negative sign may in fact be a dash of some sort -- while things will look correct, Visual Studio will be confused by these symbols, and you'll get compile time errors. **This may cause problems if you paste text from MS Word directly into Visual Studio. You may have to go through and correct these problems by hand ; some people have had success by first pasting the text into Notepad, then copying from Notepad and pasting into Visual Studio.** |

Other options:

For this class, it is required that you obtain access to a copy of Visual Studio, and that you hand in your work in a Visual Studio project. However, as long as your code (including code that you write on quizzes and exams) works in Visual Studio and you’re handing in VS projects, you can use whatever software you want to do work in this class.

In particular, these options may be useful for you (note that the instructor hasn’t actually tried/used any of these, so if you choose to use one of these options, you will be on your own in terms of fixing problems, etc.)(Note also that if you choose to use one of these environments, you’ll still need to move your C# code into a normal, Visual Studio project before handing in your work)

1. Mono / MonoDevelop:  
   <http://www.mono-project.com/Main_Page> / <http://www.monodevelop.com/Main_Page>   
   This is an open-source implementation of C#, and an open-source IDE
2. Mono on Eclipse, on MacOS X  
   <http://vanirsystems.com/danielsblog/2008/01/02/mac-os-x-mono-eclipse-and-virtuoso/>   
   If you’re using MacOSX, and want to develop using the Eclipse IDE instead of MonoDevelop, this post may be useful
3. MacOS X: Virtual Windows  
   Another option on MacOS X is to run a virtual machine (such as Parallels), install a (legal) copy of Windows & Visual Studio onto that virtual machine, and then do your work on that.