1. Installing tool-chain (including GCC, GDB and other bin utils)

   Windows:

   Execute the installation file in this package which will start and installation wizard. Make sure to select (check boxes) both the **c compiler** and **c++ compiler** during installation.

   Linux:

   Open a command window and type:

   ```
   sudo apt-get install build-essential
   ```

   If you decide to use the Linux machines in our lab, the tool-chain is already available.

   Mac:

   Go to https://developer.apple.com/devcenter/mac/index.action

   Download xcode and install it. You may need an Apple Developer Connection login which you can get for free.

2. Setting up the PATH environment variable

   Windows:

   Go to Control Panel\System and Security\System

   Then go to **Advanced system setting** on the left panel

   Click on the environment Variables button.

   Locate PATH in system variables and append the path of your bin folder of MinGW, e.g. C:\MinGW\bin; (each part of the path is separated by a semicolon ";")

   Open a command window (start→search→cmd), type in `gcc --version`. If this works correctly you should see the version information. This lets you know that your tool chain has been set up properly. (This command window should be opened after you update the path environment.)

   Linux & Mac:

   No need to set up PATH environment variable.

   Check your gcc with

   ```
   gcc --version
   ```

3. Installing JRE for eclipse

   Goto http://www.oracle.com/technetwork/java/javase/downloads/ jre7u7-downloads-1836441.html

   Find the version that matches your system and install it.

4. Installing Eclipse CDT

   Goto http://www.eclipse.org/downloads/packages/eclipse-ide-cc-developers/junor

   Find the version that matches your system on the left side panel and unpack it to some directory.

   Create a shortcut to the Eclipse executable in that folder on your desktop.

5. Begin your hello world program

   a. File→ new→C++ project→executable(project type)→hello world C++ project

   b. Choose the tool-chain as **MinGW GCC** (windows) or **GCC**

   c. Build(click the hammer button on tool bar)

   d. Run(click green play button)

e. Observe the result in the console window

If you prefer to experience the Dark Age programming environment with a pure command-line interface, stop by my office and I will show you how.