

ECE 1574 Lab Assignment 1
Introduction to Cygwin, the GNU compiler, and C++ programming

CRNs 11720-11727

Introduction

In this first lab you will install Cygwin and textpad on your own personal machines. You will also compile a very simple C++ program using a makefile.

If you have not already done so, please download the installation notes for Cygwin and Textpad from the course documents section of blackboard. Follow all instructions and consult with the TAs if you run into any difficulty.

To show you a little bit of the ability of cygwin to compile C++ programs, follow the steps below:

1. Launch Cygwin.

2. By default you should be in the directory: C:/cygwin/home/<your name>

Make a new folder for lab 1 in this directory using the following command:

```
mkdir lab1
```

Move into that folder using the command:

```
cd lab1
```

3. Download the makefile and .cpp file for lab 1 and save them in the “lab1” directory that you created in step 2.

4. In cygwin, type ‘ls<enter>’ to list all the files in that directory. It should just contain the c++ file and that makefile.

5. Type ‘make’ and hit return.

The GNU C++ compiler should now go about compiling and linking your files into an executable file.

6. Use the ls command again to look at the files in the directory. The following files should have been generated:

```
lab1.exe
```

```
lab1.pre
```

```
lab1.s
```

```
lab1.o
```

7. Run the executable, lab1.exe.

Write the output of the executable on the line below

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8. Open up the file lab1.cpp in a text editor (Textpad).
 9. Upon studying the structure of the program you should see how the output was generated. Change the source code so that the message output now reads

“Hi there <your_name>!”

where <your_name> is your name.

10. Run the make command again to compile the file you edited. Run the executable and write the output on the line below.

Have the GTA look over your work and ensure that all the output files were created properly and that your code runs correctly.

Date

GTA name / Signature