

Fall, 2010 Data Structures II (CSC 402) class:

In addition to your first reading assignment, I would like you to perform the following steps in your login directory on bill.kutztown.edu in order to copy my example code into your account, so you can compile and execute my example code:

```
which g++ # shows location of g++ compiler, should be /opt/csw/gcc3/bin/g++
which gmake # shows location of GNU make, should be /opt/csw/bin/gmake
which dot # shows location of http://www.graphviz.org/ utilities, add /opt/csw/graphviz2/bin to PATH
cd ~ # This puts you into your login (also called $HOME) directory.
mkdir ./AdvDataStructures # Make your course directory.
chmod 700 ./AdvDataStructures # Sets permission so only you have access.
ls -ld AdvDataStructures # Verify that permissions have changed
```

The output from this last command should show these file permissions:

```
drwx----- 3 parson faculty 512 Aug 26 20:03 AdvDataStructures
```

```
cd ~/AdvDataStructures # Go into course directory.
cp ~parson/AdvDataStructures/sequence_adt.zip ./sequence_adt.zip
unzip sequence_adt.zip # unzip is in /bin
cd ./sequence_adt
gmake clean test
```

This will clean the directory, then compile and test the program. This is the output you should see from "gmake clean test":

```
-bash-3.00$ gmake clean test
/bin/rm -f *.o *.class .jar core *.exe *.obj *.pyc
/bin/rm -f sequence_test sequence_test.out sequence_test.dif
/bin/bash -c "g++ -c -I. -g sequence_arrayimpl.cxx -o sequence_arrayimpl.o"
/bin/bash -c "g++ -c -I. -g sequence_interface.cxx -o sequence_interface.o"
/bin/bash -c "g++ -c -I. -g sequence_linkedlistimpl.cxx -o sequence_linkedlistimpl.o"
/bin/bash -c "g++ -c -I. -g sequence_stl_vectorimpl.cxx -o sequence_stl_vectorimpl.o"
/bin/bash -c "g++ -c -I. -g sequence_test.cxx -o sequence_test.o"
g++ sequence_arrayimpl.o sequence_interface.o sequence_linkedlistimpl.o sequence_stl_vectorimpl.o sequence_test.o -o
sequence_test
echo ARRAY > sequence_test.out
./sequence_test array >> sequence_test.out
echo >> sequence_test.out
echo LINKEDLIST >> sequence_test.out
./sequence_test linkedlist >> sequence_test.out
echo >> sequence_test.out
echo STLVECTOR >> sequence_test.out
./sequence_test stlvector >> sequence_test.out
diff sequence_test.out sequence_test.ref > sequence_test.dif
```

Run "**gmake clean**" "**gmake**" "**gmake build**" and "**gmake test**" several times while inspecting the makefile to get a feel for what is going on.

To use the Sun compiler instead of g++ (for better error diagnostics when working with template classes), type "**setenv SUNCC 1**" under C shell or "**export SUNCC=1**" under bash before invoking gmake.