Getting started on Program #1

In the notes below, text colored brown is a command you type, and green are comments.

1. Get the "**Supercomputing on Stampede-2**" handout from Day 1.
2. Following the handout referenced above:
   - login to Stampede2 • set up your Stampede2 account
3. As also noted in the above handout, you need to make a subdirectory for the code, change directory (cd) there, and copy the code to your directory, e.g.

```
cd              change directory to your home account space
mkdir  pgm1     create a new subdirectory named pgm1
cd  pgm1        change directory - make the default - your "pgm1"
pwd             print working directory - should show pgm1
ls              list the files in "pgm1".  For now, there are none.
```

   - To copy the code (*don't omit trailing "." in commands below):*
     - For Fortran: *cp ~tg457444/502/Pgm1/Fortran/* .*
     - For C code: *cp ~tg457444/502/Pgm1/C/* .*
4. Confirm that you now have the code. Type "ls" and you should see several files. *... one of these files is named "Makefile", which contains compile information*
5. Compile the code by typing "*make pgm1*"
6. You have compiled the demonstration code. Run it by typing "*pgm1*".
7. If it ran without errors, type "*ls*" and you should see a new file named *gmeta*.
8. Convert *gmeta* to a Zip file of GIF images by typing: *(use "-tar" if you prefer tar)*

   ```
   ~tg457444/502/Tools/metagif  gmeta  -all  -zip      creates "gmeta.zip"
   ```
9. Send the *gmeta.zip* file to your PC, Extract the files, and examine the images. You should see the damping sine wave discussed in class.
10. If everything worked, do this to convert the demonstration code to program #1:
    - Boundary conditions: Edit the bc.f90 or bc.c file to correct the code
    - Integration scheme: Edit the integrate.f90 or integrate.c file.
    - Main program: set *nx = 75* in p1demo.f90 or p1demo.c
    - Recompile the code *(make p1)*, run it, make plots, send to your PC.