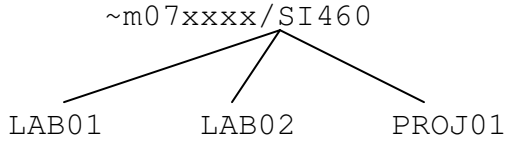
SI460 Computer Graphics Lab Exercise 1

Name: _____

Compile a simple Sun/Solaris OpenGL/GLUT program using `make`

1. Login (**m<alpha>** with password **it.cs.07**, unless you changed it)
2. Create your own SI460 class directory hierarchy (you should add to this as the course progresses). For *example*: `~m07xxxx/SI460`



3. Knowing how we organize SI460 graphics programs, examine the **Makefile** for this lab: what user source and user header files comprise this program? List them:

   _____

4. Copy and unpack the lab's **tar** file to the directory you created in Step 2:

```
cp /courses/stahl/460/Labs/LX01.tar ~m07xxxx/SI460
  ▲                                 ▲
(space)                           (space)

tar xvpf LX01.tar
```

5. Using **main.h** and the **Makefile** to lead you to the correct answer, locate the header file **glut.h**. Write down the *full* path name for **glut.h**:

   _____

6. Using **glut.h** and the **Makefile** to lead you to the correct answer, locate the header files **gl.h** and **glu.h**. Write down the *full* path name for **gl.h**:

   _____

7. Locate these link libraries (write down the full path name):

   a. libGL.so _____

   b. libglut.a _____

   c. libopenal.a _____

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8. **BEFORE compiling**, examine the source code for understanding. Try to answer these questions:

    a. List the names of all global variables: _____

    b. What's the window title? _____

    c. What is the initial window background color? _____

9. Many functions are called. List the names of ALL functions that you cannot fully understand by examining the code (there are some we have not talked about!):

10. Create the executable program using `make`. Execute it. Answer these questions:

    a. How would you make the colors cycle faster?

    b. By changing one line in one function you can make the colors cycle randomly through the array of colors instead of sequentially. Name the function, write the existing line of code, and write the modified code:

        Function: _____

        Existing code: _____

        Modified code: _____