14:09:56 From Stachura, Ryan to Everyone: Can we upload our video directly to Canvas instead of providing a link?

No, we need a link we can click on.

14:12:19 From Stachura, Ryan to Everyone: Do you care where our videos are stored then? Just as long as they are accessible via a link?

Just so that when we click on the link, your video plays

14:28:48 From Naomi Grant to Everyone: I removed the axes in my project just to make it look prettier. Would I lose points for that? Should I put those back in and resubmit?

Removing the axes is OK, but they are really there for your benefit. It is easy to get lost in 3D when rotating. You can always turn the axes off with a pop-up menu.

14:35:47 From Stachura, Ryan to Everyone: Does it work that way because the transformations are on a stack?

There is a transformation stack, but that’s not the reason that the transformation closest to the drawing looks like it takes effect first. Go back to the idea of parenthesizing the transformations.

14:37:28 From Stachura, Ryan to Everyone: Can you force rotations around points other than the origin?

Yes, but it takes 3 steps: translate to the origin, rotate, translate back. If the object is centered at (A,B,C) then you would program it as:

```
    glTranslatef( A, B, C );
    glRotatef( angle, ax, ay, az );
    glTranslate( -A, -B, -C );
    << draw something >>
```

14:52:59 From Pemberton, Jordan E to Everyone: The project due dates are all on different days of the week. Is that correct?

Yes, it’s correct. I’ve tried to make each project’s duration proportional to the difficulty.

14:59:54 From Junkins, Orion Jacobi to Everyone: Is it best practice to have a unique display list for every separate object?

You can group multiple objects in the same DL, but they will transform together. Personally, I like having all objects in each’s own DL.

15:18:12 From Pemberton, Jordan E to Everyone: Does GLUT work with Android or iOS window managers? Our of curiosity

Not that I know of. I think you need to use the Android or iOS native windowing calls.
15:27:40 From McFarland, Corey to Everyone: Many 3d printing model sites use .obj as a standard format like thingiverse.com

The STL file format is the standard 3D Printing file format. But, sites like thingiverse export in OBJ format so that you can read that object into other modeling programs or into your OpenGL program.

15:39:15 From Yumeng Wang to Bailey, Mike (Direct Message): I am now trying to create the window following the sample code. It usually close immediately. I also add the mainLoop function but it seems I have some misunderstand of that function.

Make sure you have one and only one call to glutMainLoop() and that it leaves at the end of main() like in the sample code.

At this point, I asked where everyone was from. I got back:

- near Portland
- Seattle
- Beaverton/Aloha
- Austin, TX
- Taiwan
- Portland
- State College, PA
- San Francisco, California
- China
- From AZ, currently in the southern-most island in the Caribbean called Grenada.