

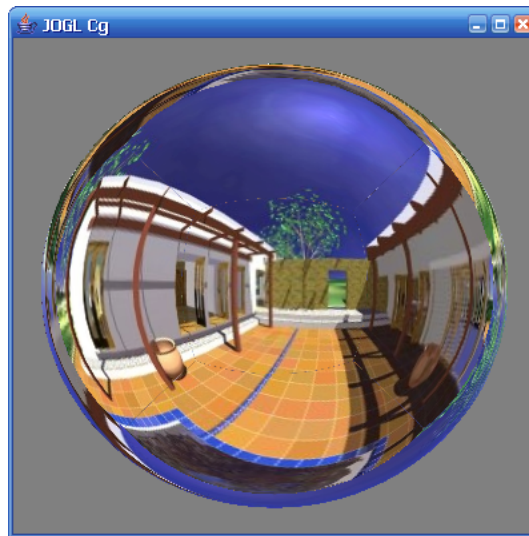
Reflection, Toon-Shading

Assignment 10

Download the cube mapping template and complete the faceFile array to load the cube map properly. Add a keyboard listener to switch between nearest and linear filtering interactively. Try different modes for automatic texture coordinate generation (`GL_REFLECTION_MAP`, `GL_NORMAL_MAP`).

Use the bunny model instead of the sphere.

- **Homework:** Send 1 screenshot similar to the image underneath BUT with bunny.



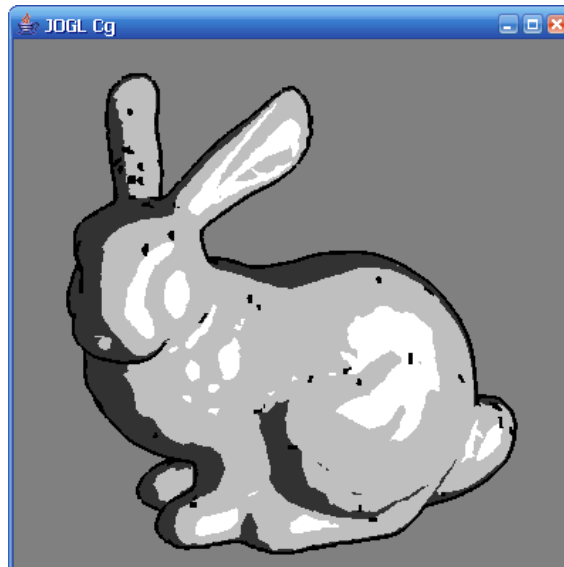
Assignment 11

Use a fragment program to implement a simple toon shader with a fixed (hard coded) lookup table. Calculate the intensity of the shading by the dot product of $L \cdot N$ first. If the intensity is > 0.95 , return white as color, if intensity > 0.5 gray and dark gray otherwise.

Use this code snippet to add comic style outlines:

```
gl.glPolygonMode(GL.GL_BACK, GL.GL_LINE); //Draw As Wireframes
gl.glCullFace(GL.GL_FRONT); // Don't Draw Any Front-Facing Polygons
gl.glDepthFunc(GL.GL_LEQUAL); // Change The Depth Mode
gl.glColor3f(0, 0, 0); // Set The Outline Color
gl.glLineWidth(4); // Set The Line Width
gl.glCallList(list); //Call Your Display List
gl.glDepthFunc(GL.GL_LESS); // Reset The Depth-Testing Mode
gl.glCullFace(GL.GL_BACK); // Reset The Face To Be Culled
gl.glPolygonMode(GL.GL_BACK, GL.GL_FILL); // Reset Polygon Drawing Mode
```

■ **Homework:** Send 1 screenshot similar to the image underneath.



Assignment 12 (team work)

Go on with assignment 9.