Introduction to Computer Graphics
Blender Project

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For my Blender project for the Computer Graphics course, I wanted to follow a YouTube tutorial in order to create a 3D-modell or scene. I've had several ideas of what to search for but after deciding that going with something simple would be the best choice, I decided to follow a cute frog tutorial.

It started with creating a round cube. I created the round cube, which looked like a cube with round edges. Afterwards I changed the radius to 1 in order to make the cube to a sphere. The reason why I did not use a sphere in the first place was that sphere's in blender are made of triangles instead of square faces, and squares are easier to manipulate (that's how the woman in the tutorial explained it). Now with having changed the radius to 1, the cube became a sphere with visible square faces. Then I smoothed those out and voila; a round sphere.

Then I added the reference image to the sphere. This was downloadable on the YouTube tutorial as well. At first, I wanted to redraw it, in order to make it different, but soon I decided to not do that because my drawing skill are not great. After having added the reference image into the Blender program, I put the image in front of the cube and decreased the transparency of it in order to see the sphere through the image. Then I deleted the right side of the sphere and mirrored it. The frog is symmetrical, and therefore, this makes work way easier because I would only have to work on one side of it.

At first, it was hard to navigate through Blender; changing from edit-mode to object-mode by using shortcuts. However, after a while I grew accustomed to it, and it really started to make fun.

Then I started to model the sphere which became the head of the frog. By using shortcuts, I moved vertices in order to fit the sphere to the image of the frog. For the eyes of the frog (which look like ears in my rendered picture because I could not draw them on), I deleted one of the vertices on the upper left side of the sphere. This created a hole. Then I marked the vertices around this hole and with the LoopTool I created a circle. This obviously happened on both sides because the object is mirroring itself. Then I adjusted the vertices again to fit the to the image. Then I selected the circle and created the eyes. By pressing some shortcuts, I created vertices on-top of the circle. When I thought I am done with the eyes, I clicked to close the vertices at the center of the loop in order to close it.

After again some modelling, I created another round cube for the body. I repeated most of the steps, I already did in order to create the arms and the legs. Having done that, I

started to create the shirt of the frog. In order to create it, I selected the vertices of the body in the shape of the shirt and copied and pasted it. Now I had another model in the shape of the shirt on-top of the body. I edited the object again to alter its shape and increased its size. Now I had a shirt. Afterwards, I added a plane underneath the feet of the frog and stretched it in order to create the background.

Having modelled the object into the shape I wanted it to be, the tutorial went on with UV-mapping. I think this was done in order to later shade the surfaces and colour the model. UV-mapping still worked, however, when I tried to create a new material in order to colour it (I guess) Blender crashed. I tried it a few times afterwards, but I could not make it work. This meant, unfortunately, that I could not colour my model. I tried to open the shading menu by clicking on shading on the top, but it would still crash.

I still watched the tutorial to the end and waited until new things came up which I could still do. The only thing I could do was lighting. However, I could not preview how the lights looked on the model because if I would try, Blender would crash. So, I followed the tutorial concerning the lights and hoped for the best.

Fortunately, someone (Bence) on the GSE Discord channel was so nice and helped me out. He opened my Blender project on his computer and shared his screen with me via Discord. Now we could work on it together. He helped me adjust the lights and rendered the final image for me.

I really liked working with Blender and I hope that soon I have the technological capacity to do more with it, as I would have loved to do more. However, I am still proud of my model. Additionally, I am now more aware of the hard work 3D animations and graphics take in order to look the way they look.