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COSC 3P98 Project

“Three Presents for the Bear”

Introduction

In order to create the animation, the student used a graphic program, called blender. This animation system is useful to render the 3D animation, including the models, cameras, lights, sounds, and textures. The animation will take about 54 seconds, and it has almost 1300 timeframes. The idea (scenario) was made only by the student. However, some images of the models, such as pizza or snows, were referenced from websites. In this paper, I will explain the detailed components that I used for this project as follow sections: 1) Idea, 2) Models, 3) Textures, 4) Cameras, and 5) Lights.

Idea (Scenario)

Before creating the animation, the student watched several short videos in our class and got some ideas from other students, such as characters' behaviors or movements. However, the scenario, such as the teddy bear's three gift presents, was created only by the student. The animation includes three ideas. First, there is a teddy bear, which is our main character in this animation, and he will touch the random boxes (gift boxes) in order to open them. The first gift box will be opened by a ring bell which is moved when the bear turns on the button (cylinder located next to the bear at the first scene) from the green to the red paint. Second, after the first box is opened, the bear will walk to the slide in order to kick a ball. This ball will touch the second gift box when it is fallen to the ground. The second gift will be the teddy bear's friend. Third, the bear will walk down to the stairs in order to slide down by using a long pole to the ground because the third box is located on the first floor. When the bear touches the third box, it will be opened, and the snow gets started to be fallen to the ground. The last scenario is the moment that the bear feels happy when he looks at the sky and the snowing.

Models

In this project, the three models were created in total. First, the background includes a school building. This building also includes stairs, a slide, and a pole. Also, there is a small tent in the playground. This tent is linked by a long cylinder thread and ring bells. Second, there are two characters, a teddy bear and his friend. The main character is the teddy bear (the brown one), and the second character is the friend bear (the pink one) which appears later in the animation. In order to create the bear, I considered the bear's head, ears, arms, legs, body, and feet. I also used the tools to create these bodies, such as cube objects, cylinders, circles, rectangles, and triangles for eyes, nose, mouth, and ribbon (red ribbon for the friend's bear). The third model is the gift boxes. There are three gift boxes, and these boxes were created by using cube objects. All of these boxes are located on the first floor, and they are opened when someone or a thing (such as bells or balls) touches the box.

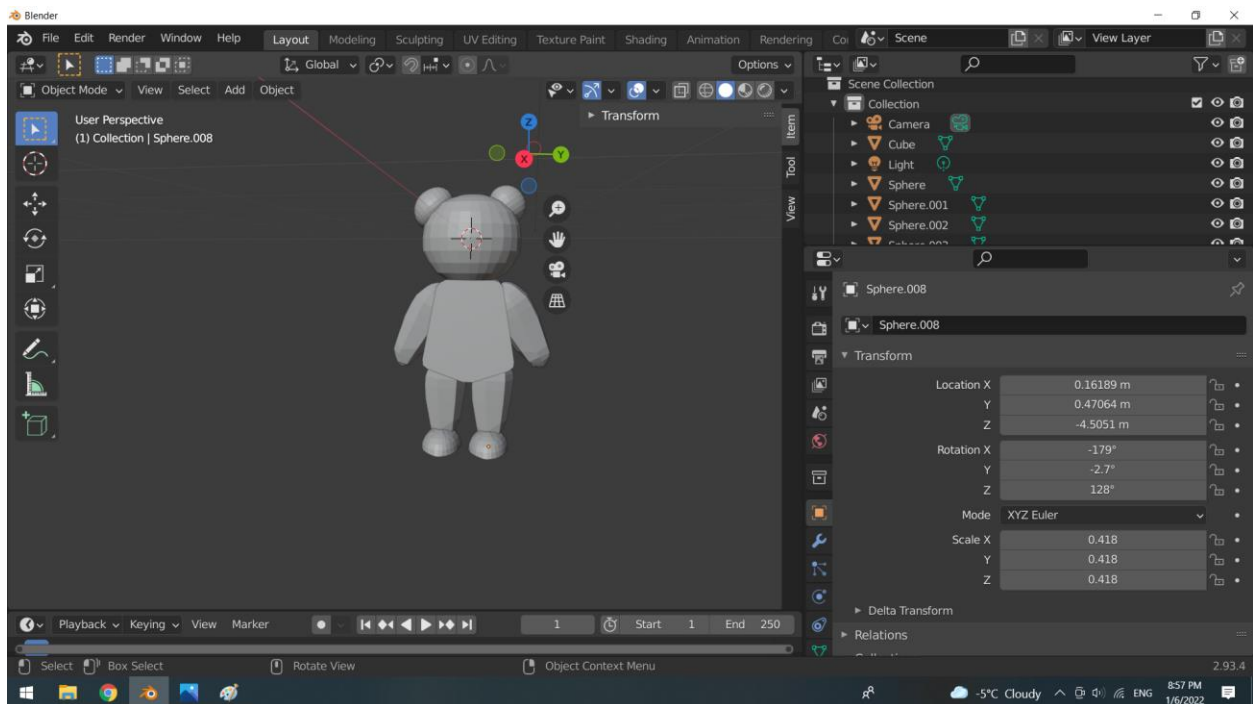
Model 1. Bear

In order to create a bear model, I searched a teddy bear as a following picture.

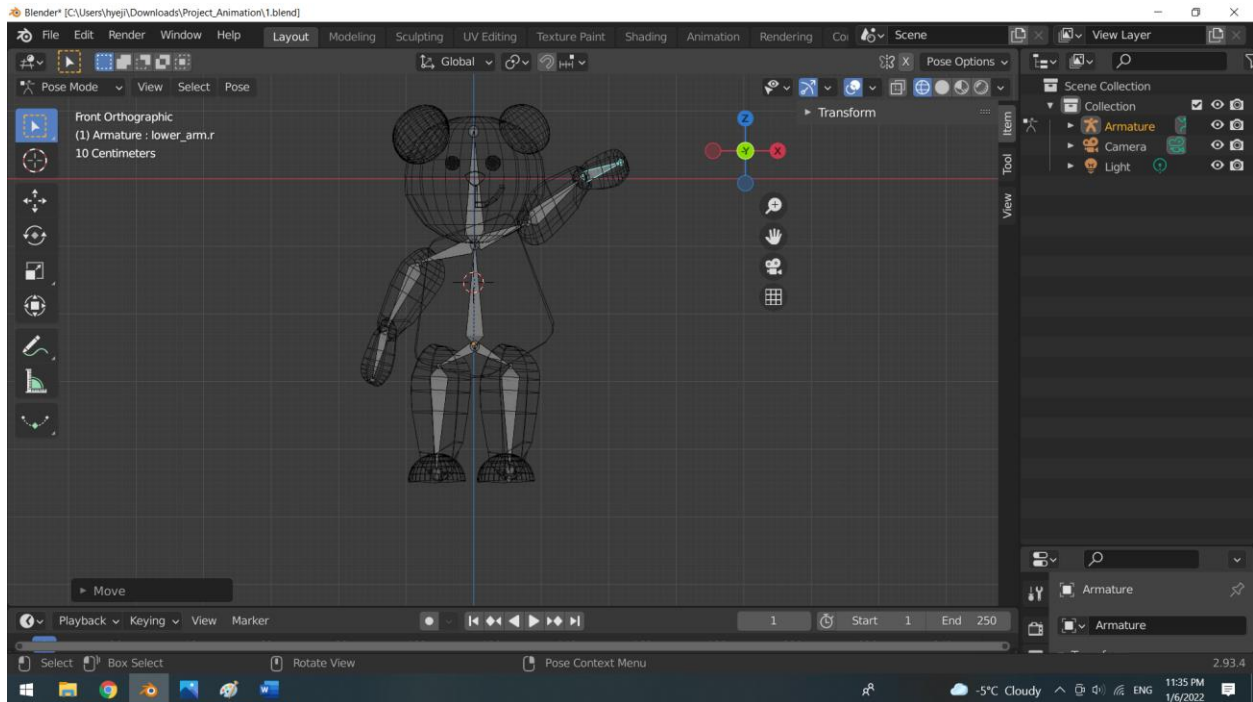


Figure 1 Referenced from: <https://theconversation.com/cuddly-parasites-how-teddy-bears-got-their-claws-into-children-51696>

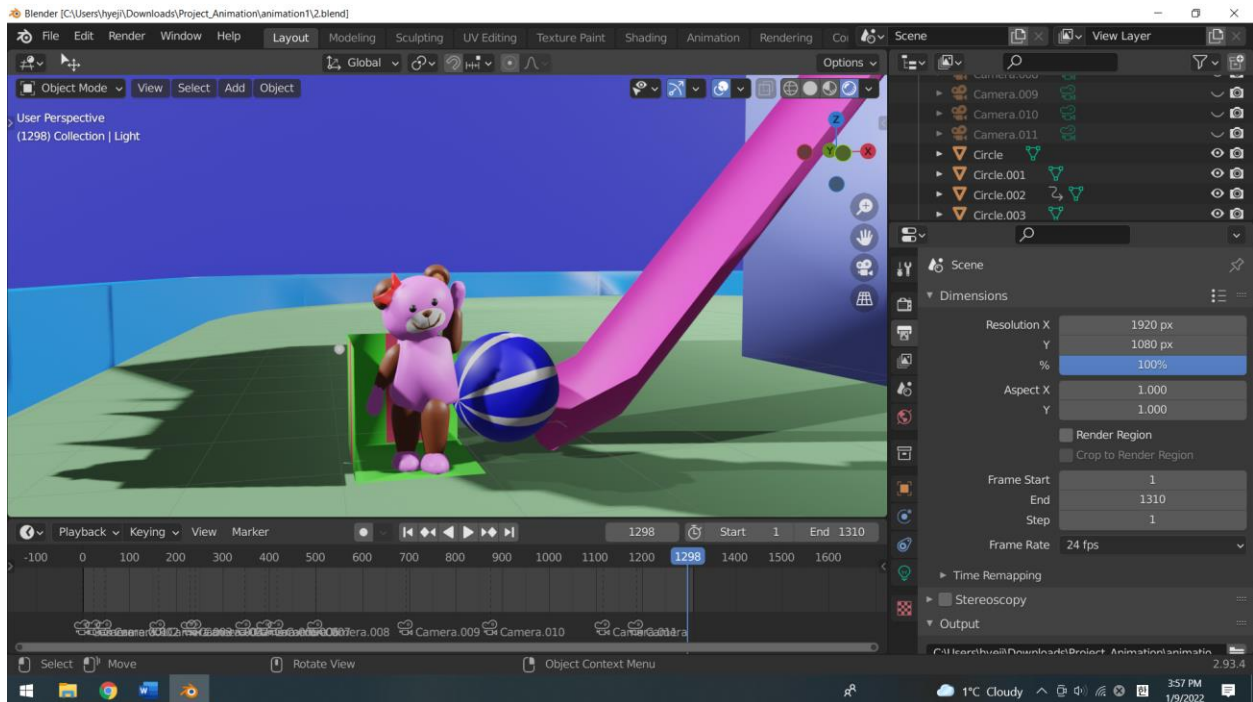
As the following picture has shown, cubes were used for the body, legs, and arms, and the spheres were used for ears, a head, and feet.



Also, as the following screenshot showed, I used the bones in order to create movements, such as walking, sliding, waving hands, rotating a head, and touching materials. The bones have 11 bones, including a chest, shoulders, upper arms, lower arms, head, upper legs, lower legs, and feet.



The model of the bear's friend was created by copying the figure of the original bear, only changing the color of the texture and adding the red ribbon on the top of the head.

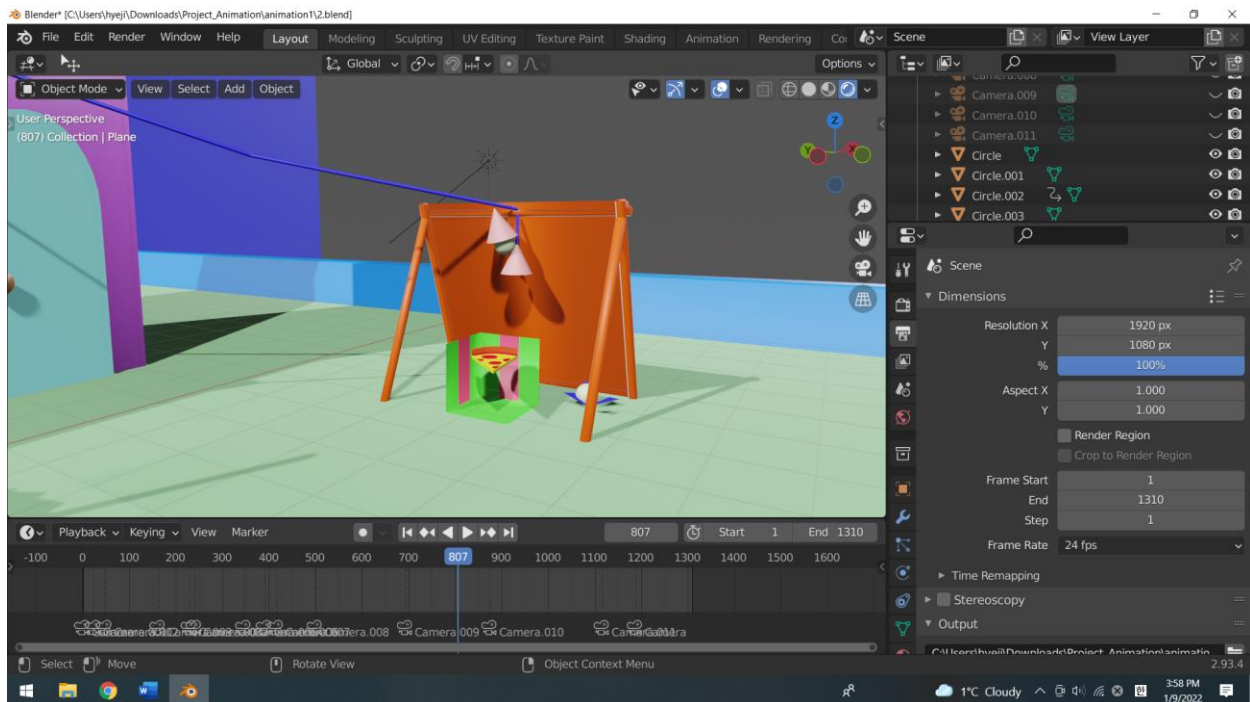


Model 2. Background

As mentioned earlier, the background consists of a tent with a ring bell, a slide, and stairs with a long pole for representing the three scenarios.

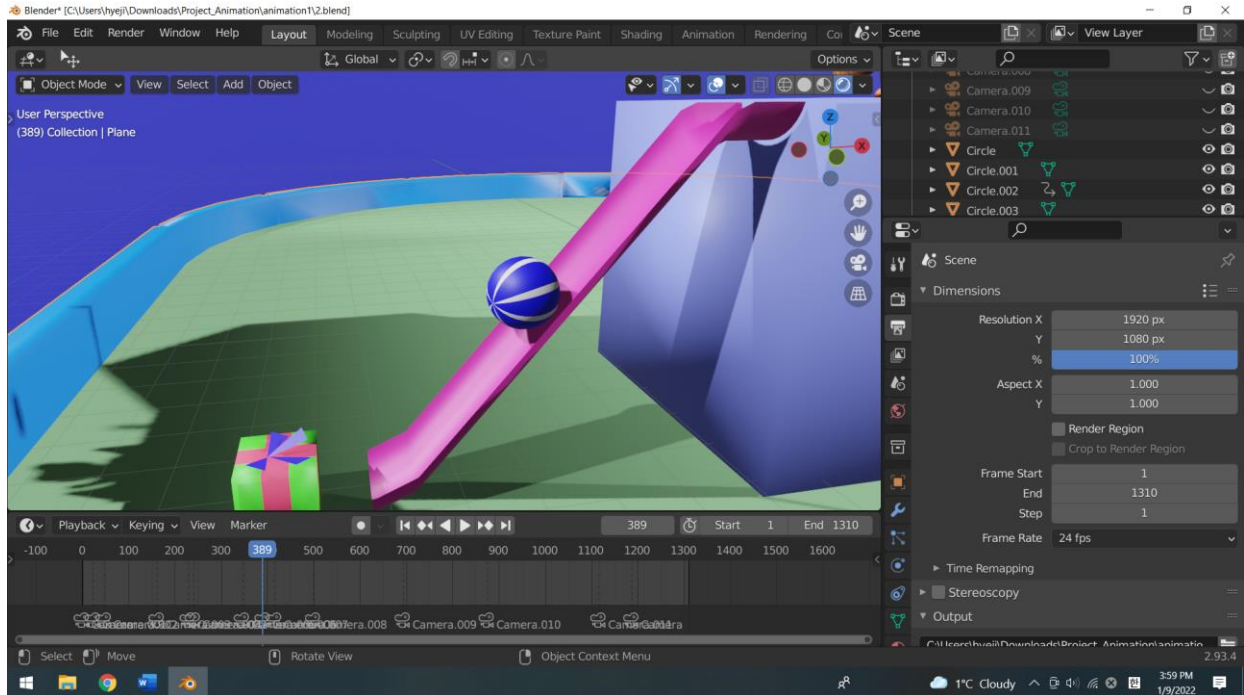
1) Tent with a ring bell

As shown below picture, the tent is located on the first floor attached by a long thread and a ring bell. There is a gift box under the tent so that the bear can open the box when the ring bell fell off the thread.

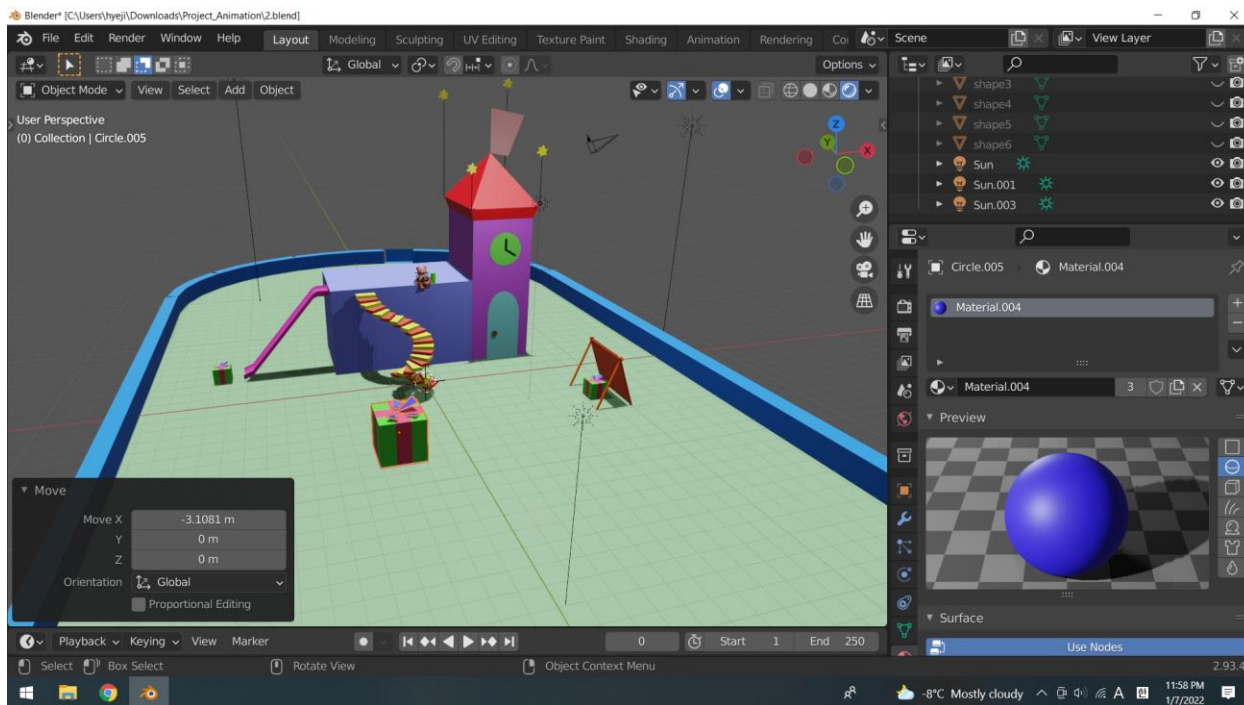


2) Slide with a ball

As shown below screenshot, there is a slide attached to the building. When the bear kicks the ball, the ball falls from the top of the building, and it hits the gift box which is located on the first floor.



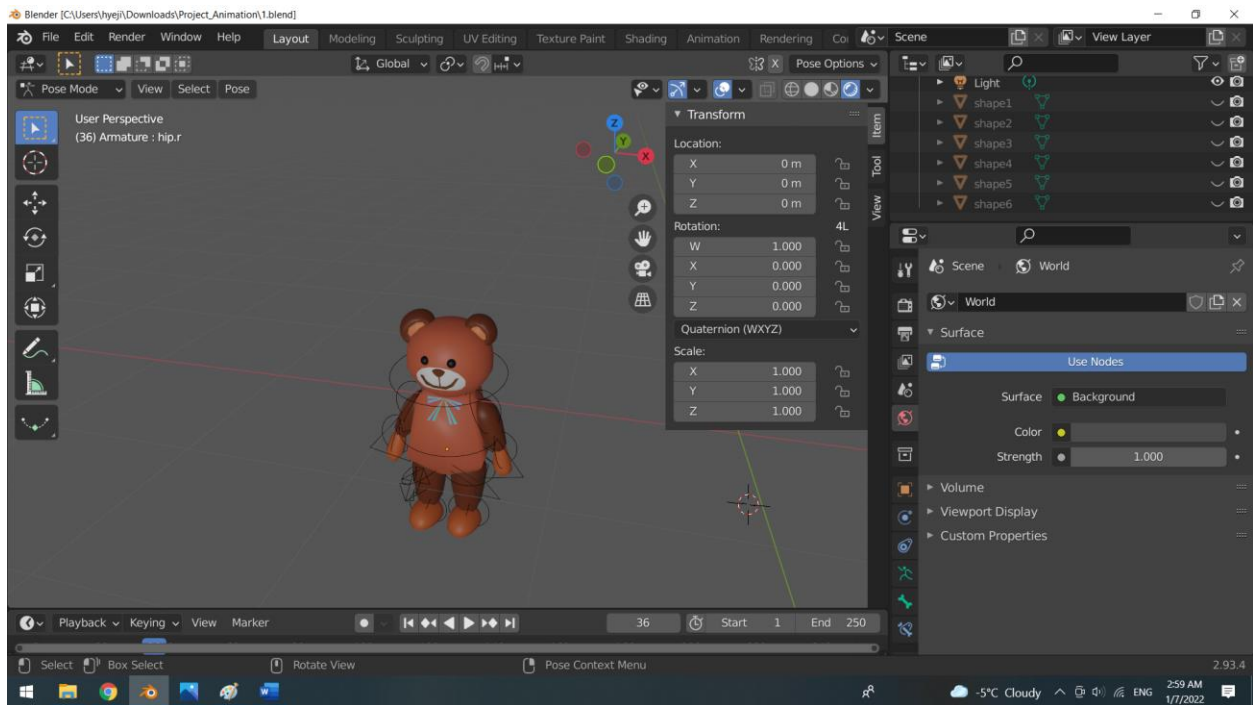
3) The below screenshot shows the entire background of the animation.



Textures

For the bear, I used leather textures and metallic styles. Also, all of the models were smoothly shaded. These tools were helpful for making a more realistic bear so that people cannot easily figure out that this model actually comes from a cylinder or a cube. In addition, several textures were referenced by the website. For example, the brown color for the bear's face and body surfaces was imported from the

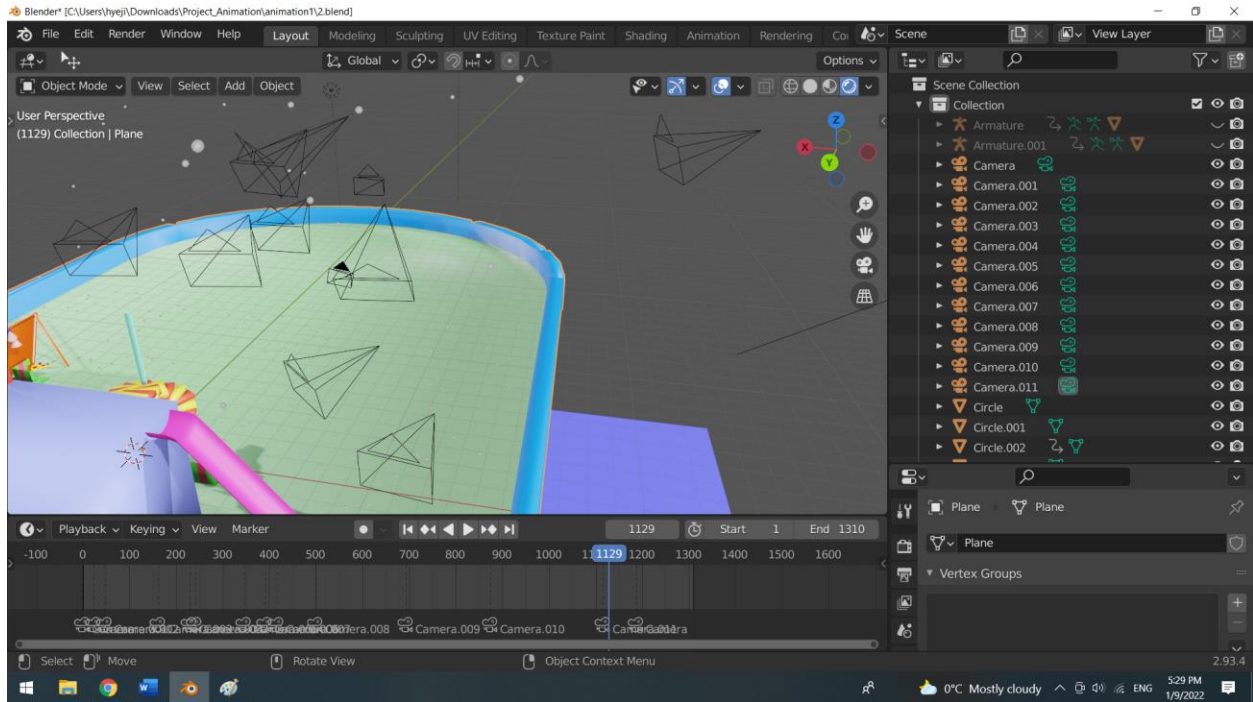
source, which is textures.com.



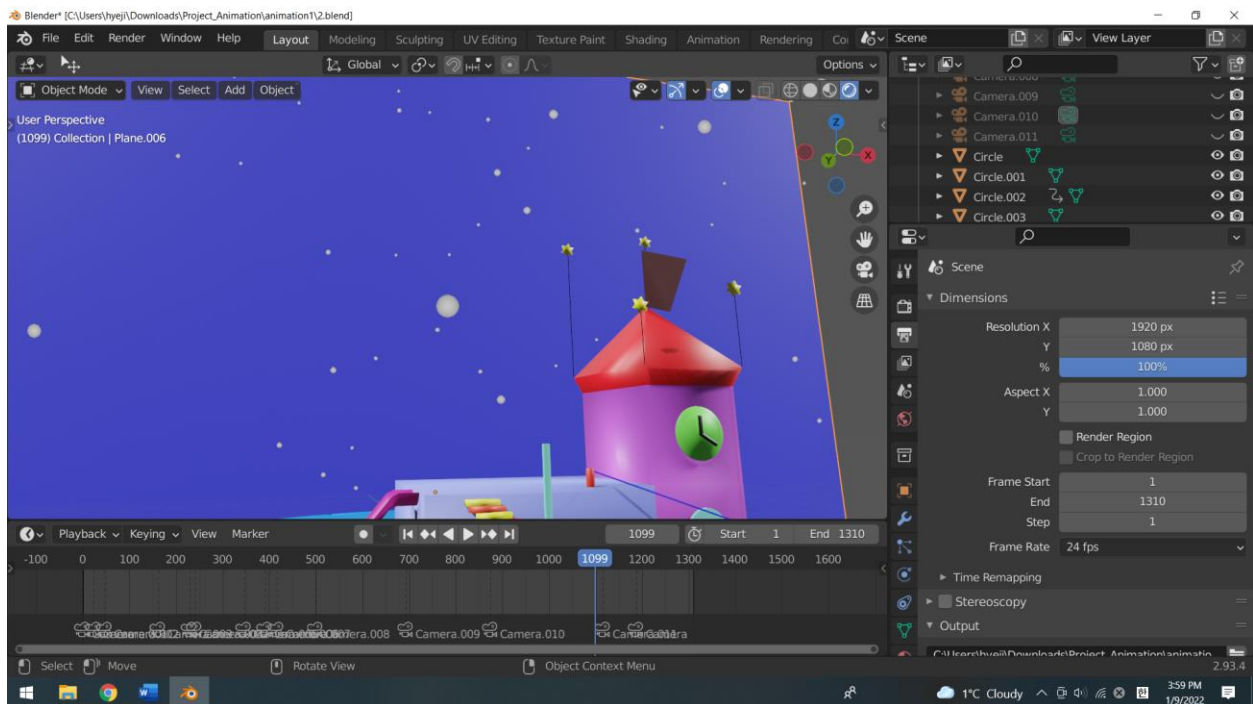
Cameras

In this animation, twelve cameras were used in total. The camera angles will be transformed whenever the main character moves to another position. The first camera shows the entire scene, including the school building, stairs, a long pole, slide, gift boxes, a tent, and the playground. This camera is important since it is a unique camera in which the viewer can see the entire background, and other cameras only focus on a certain moment especially when the bear moves. The following cameras, the second, third, and fourth cameras, will show the movements of the objects. These cameras zoom in and out in order to show the materials more visibly. For example, when the ring bell moves through the long thread after the bear touches the cylinder button, the first camera turns to the next camera to show the movement of the bell into the tent's location. Likewise, the following cameras also focus on the movement of the bear, the ball, and the bear's friend. The last camera shows the sky focusing on the snowing because the bear also looks at the sky in the last scene.

The below screenshot shows the location of the cameras which are used in the animation.

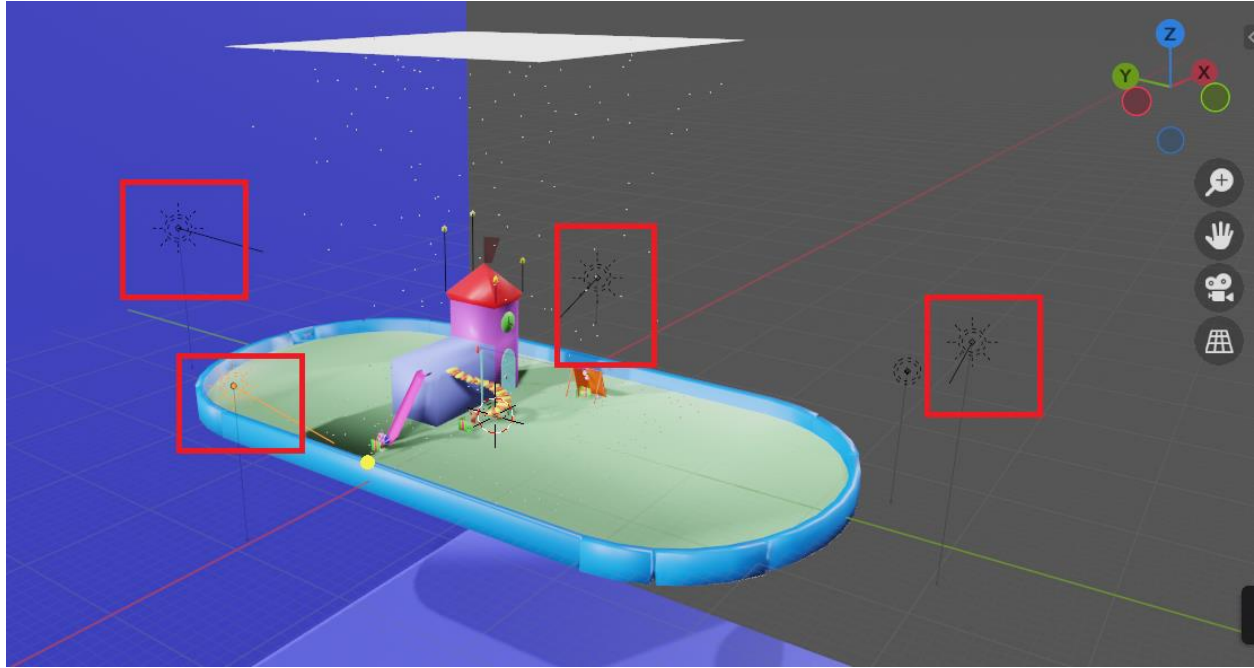


Camera example 1. The last scene shows the sky and the snowing



Lights

In order to brighten the background, four lights were used in total, and they are located in north, south, east, and west each as seen below screenshot. In this animation, the type of light is the sun, and the strength is 4.0.



Sound Effect

I used the two sound effects, two mp3 files which are attached to the project file folder, in this animation. The sound effects were referenced by the two websites which are indicated in the reference section. The title of the background music is "Happy summer" which can make the viewers feel happy when they listen to music. Also, one sound effect was used whenever the gift boxes are opened like "ding dong" to notice the viewer that the box is opened.

Conclusion

In this project, the short video animation was created by using Blender. While making this short video, the student can be a director, a writer, an artist, and a photographer. The student considered the location of the camera, the color, the lightening, the timing, the movement, and so on. Also, the student would like to focus on the bones of the bear so that the movement of the bear look naturally like human in reality. In the future, the animation could be improved by editing the model's movement to be seen more smoothly, such as the bones of the bears.

References

- Animation System: Blender (www.blender.org)
- Sound effect 1 referenced from: <https://www.freesfx.co.uk/sfx/ding-dong>
- Sound effect 2 referenced from:
<https://pixabay.com/music/search/genre/happy%20childrens%20tunes/>
- Texture referenced from: textures.com
- Reference image referenced from: <https://theconversation.com/cuddly-parasites-how-teddy-bears-got-their-claws-into-children-51696>
- Reference image referenced from: <https://www.deliciousmagazine.co.uk/what-are-the-top-10-twitter-food-emojis/>