Brock University
Department of Computer Science
Cover Page for Team Work

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Course: COSC 3p98____ **Assignment:** Final Project

Term: Spring (Fall) Winter **Section:** [01] 02

We have read and understood both the Department's and Brock's policy on academic misconduct. I declare that this submission is our own work, and that other work used or referred to is appropriately cited (for example, within program comments).

Joel .
_____
Signature of Team Leader

09/01/2022
_____
Date

COSC 3p98 Project

Burger Tutorial

How to make a delicious burger.

Course Code: COSC 3p98

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Student 1 Name: Joel Liju Jacob

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Owners

This animation was made by Joel Jacob and Kam Sadiq.

Background

This video was inspired by our workplace McDonald's. So we decided to make a tutorial on how to make a delicious sandwich with a sesame seeds bun and a beef patty, topped with ketchup, mustard, onions, and cheese.
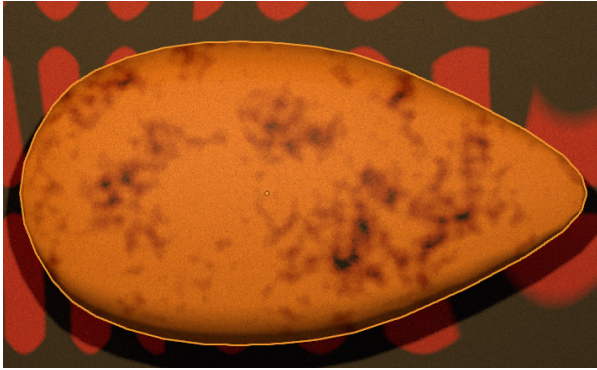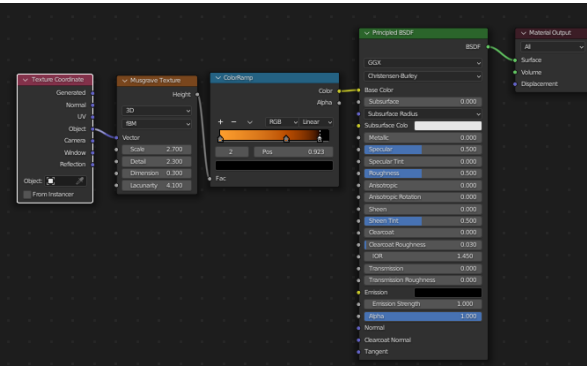
Softwares used

We used:-
- Blender 3.0 for modeling and rendering animation
- FL Studio 20 (Audio)
- Wondershare Filmora Pro (Editing and combining animation clips.)

Assets

Sesame seed

Texture	Just a simple Musgrave texture is used for the material.

Top bun and bottom bun

| Texture	There are two textures used, for the top part of the bun and the bottom part.
	- Top part: white noise texture and mixing burgundy and black together. This also has a subsurface of 0.114 and roughness of 0.482.
	- Bottom part (the bready part): Added together noise texture and Voronoi texture, then used a color ramp to adjust reddish-orange and white together. Also added bump mapping with the
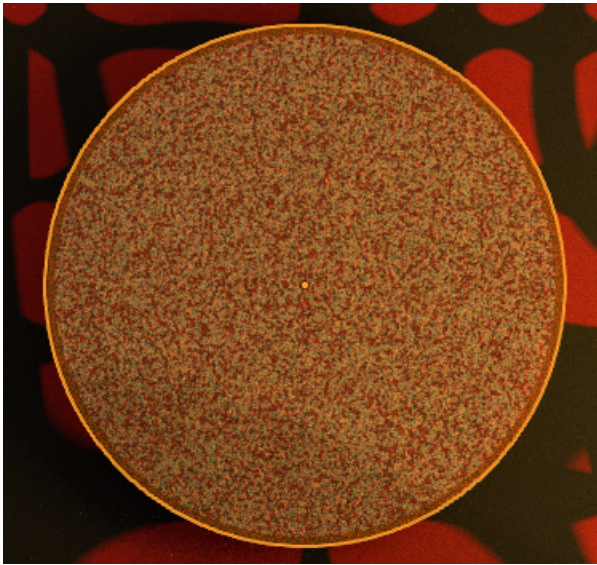
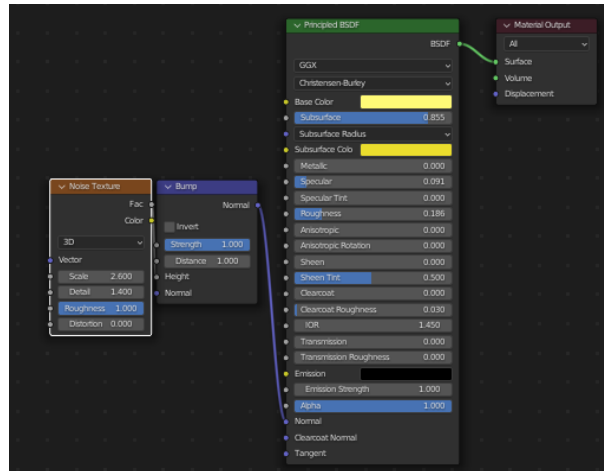|	
	added value of Voronoi and noise.
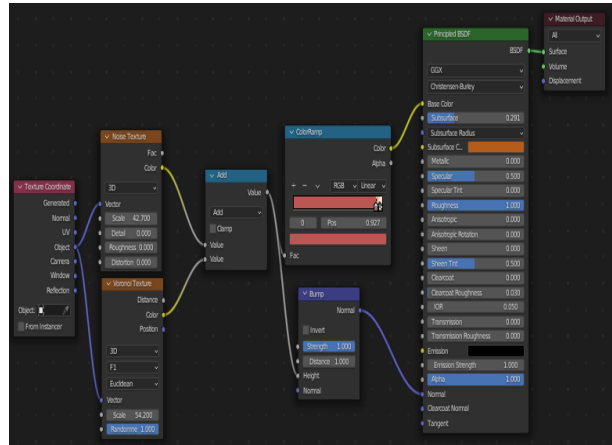
-The bread texture node set-up.

Cheeses
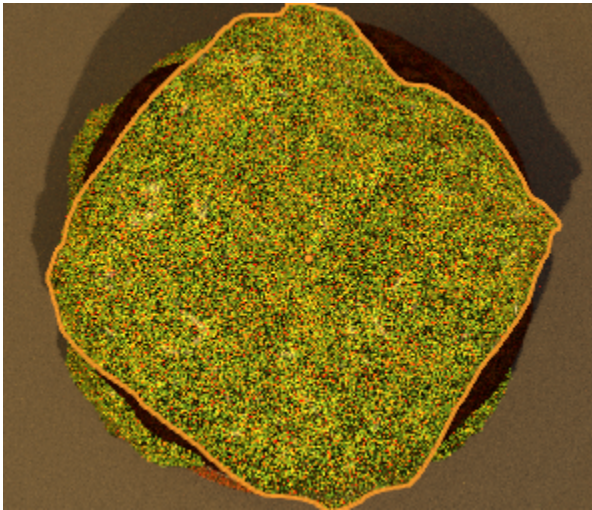
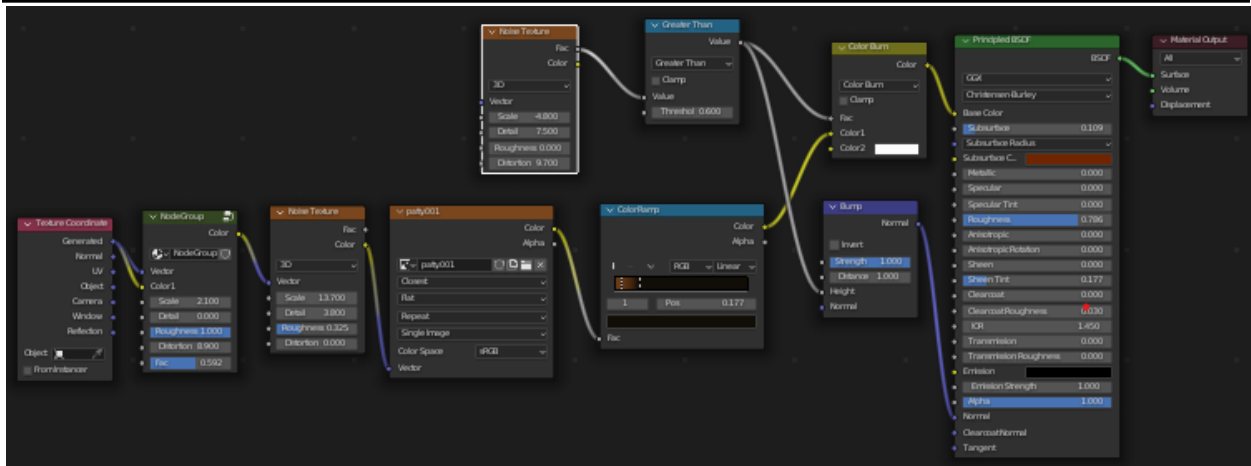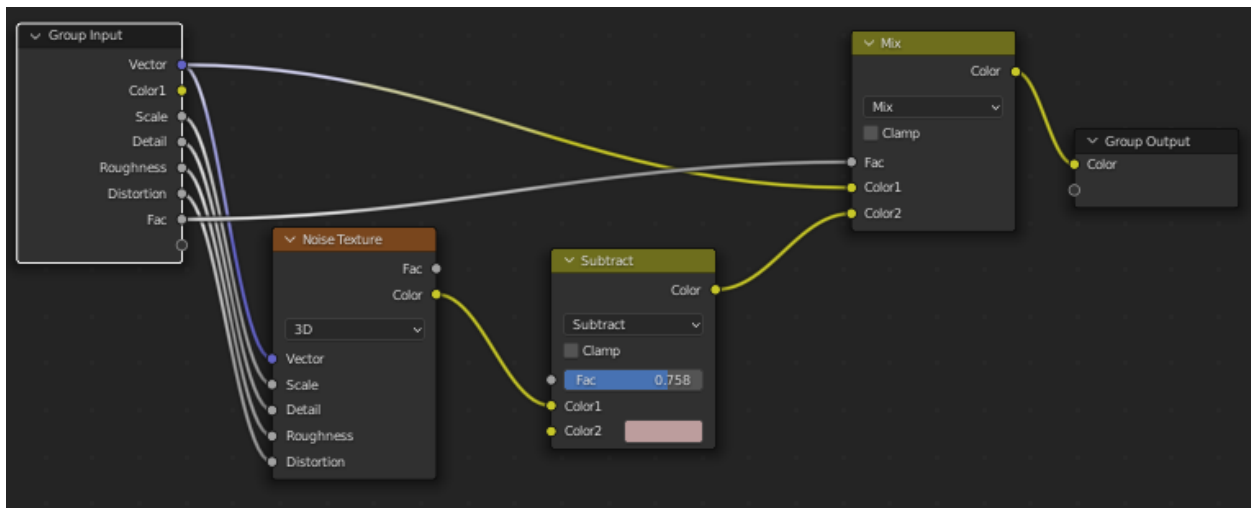| Texture	A simple yellow color with a subsurface of 0.855, and a bump mapping using noise texture.

Burger

Texture	First used a noise texture and subtracted reddish-white color from the color value of the noise. Then mixed that value with the vertex values of the mesh. Then used the mixed value as vector values for a noise texture function. This is then plugged into an image
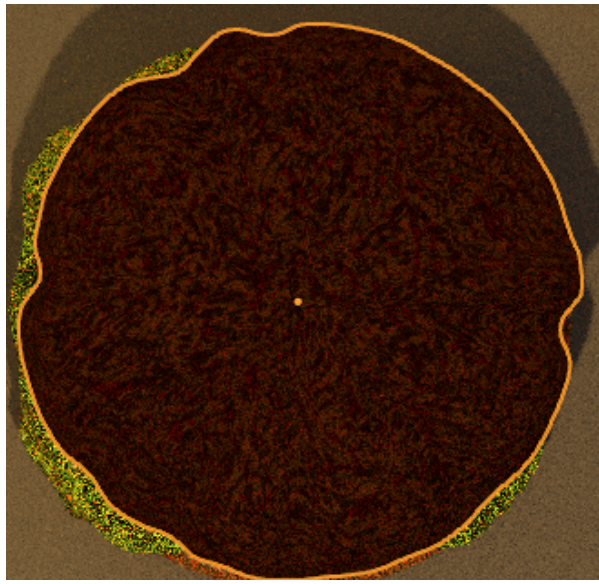
texture of a bitmap, which is fine-tuned with a color ramp. The fine-tuned color is used to burn white color with the obtained color as the base color for the mesh.

The factor for this is determined by a noise texture for values greater than 0.6, and this is used as the value for bump mapping height as well.
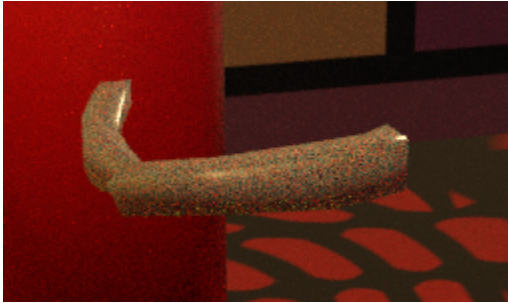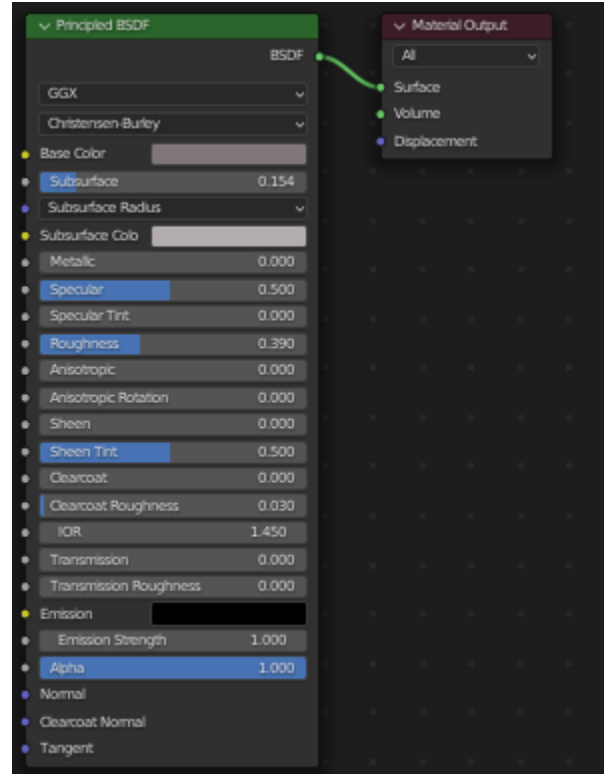

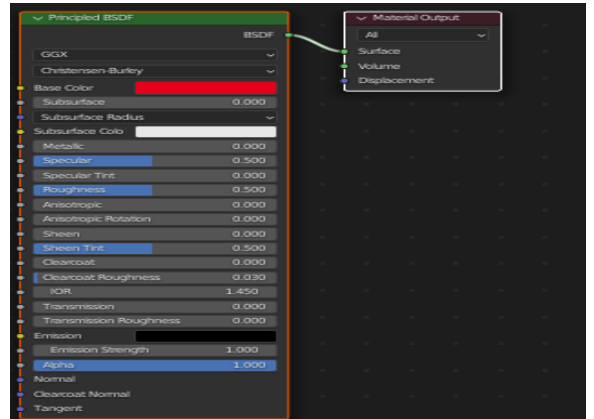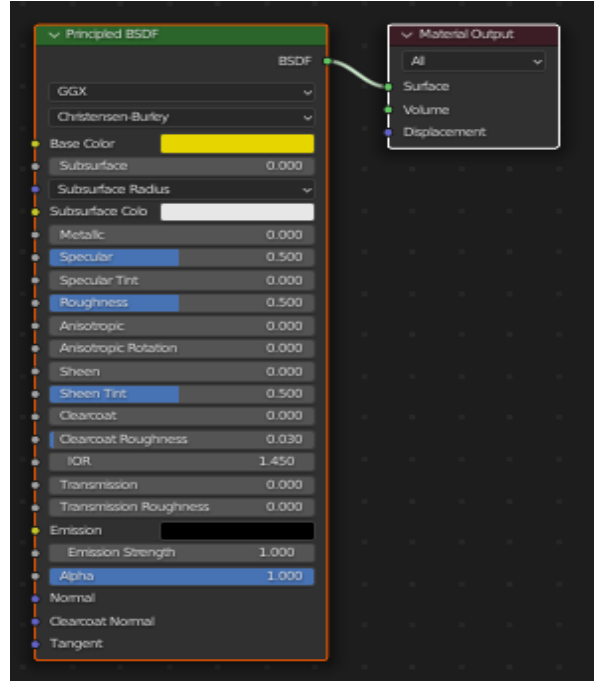-The burger set up.

-The node group.

Onions

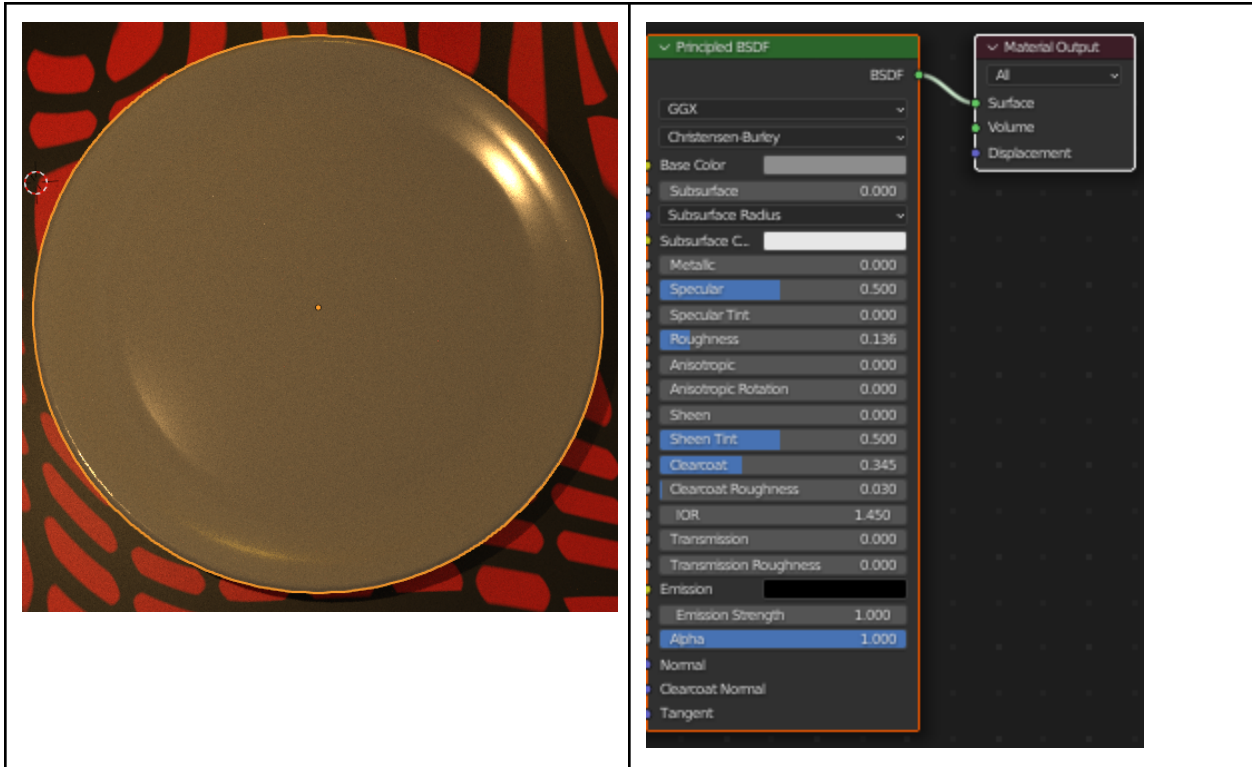| Texture	Simple material with a grey color, and subsurface of 0.154 to give it a bit of organic feel.

Ketchup and mustard bottle

Texture	Simple material with a yellow color and red color for mustard and ketchup bottles respectively.

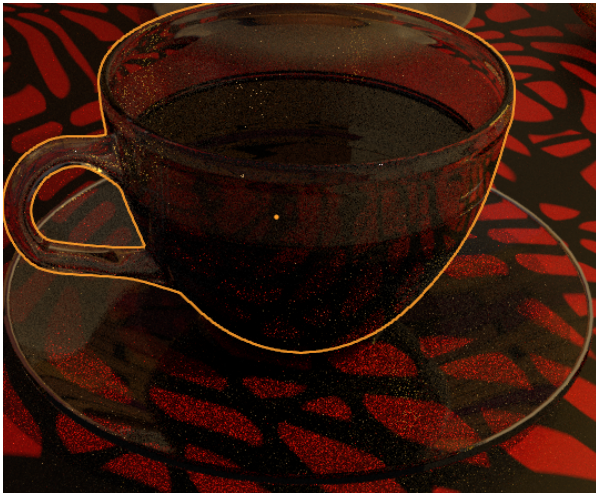**Plate**

| Texture | Simple material with grey color for the plate. |

Coffee cup
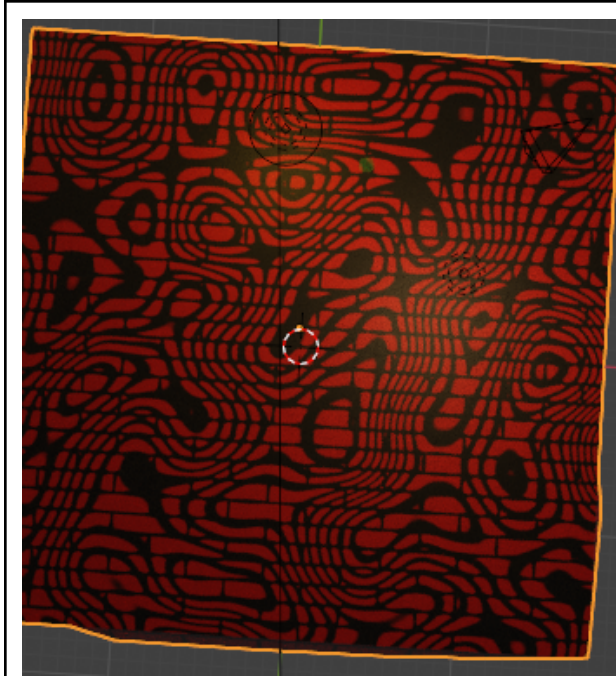
Texture	
	This is a simple texture with full transmission strength which helps with making it transparent. In addition to that, the liquid inside is a polygon made with the same material as the coffee cup, but with the volume being red in color. https://www.youtube.com/watch?v=7a0cHFs7jkw this is the link to the video of how it is made.
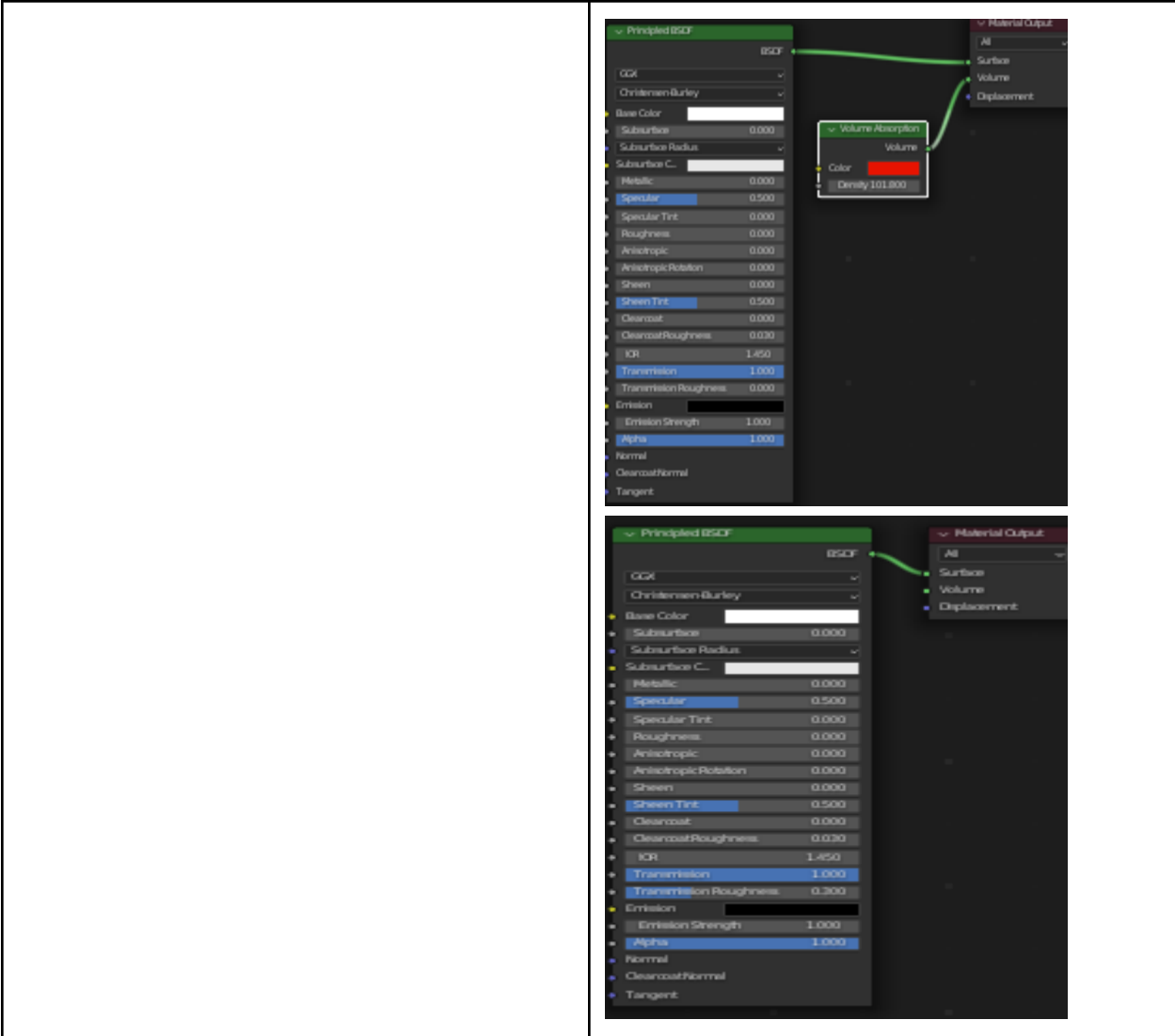
Table

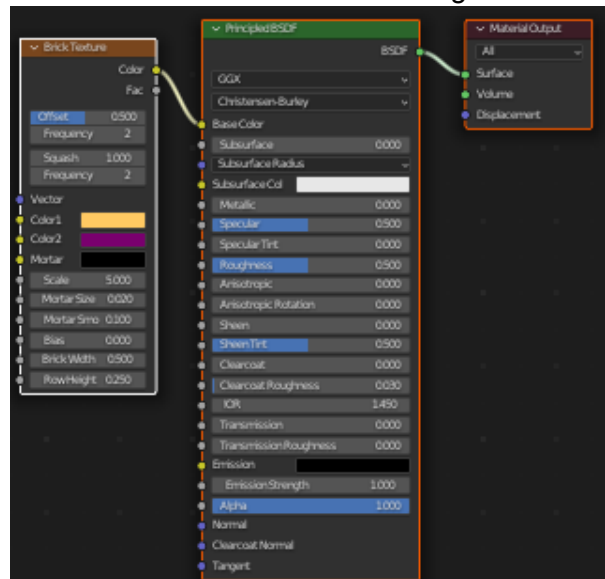| Texture	Used a combination of wave and brick texture to get the look present on the table, and added red and black as primary colors.
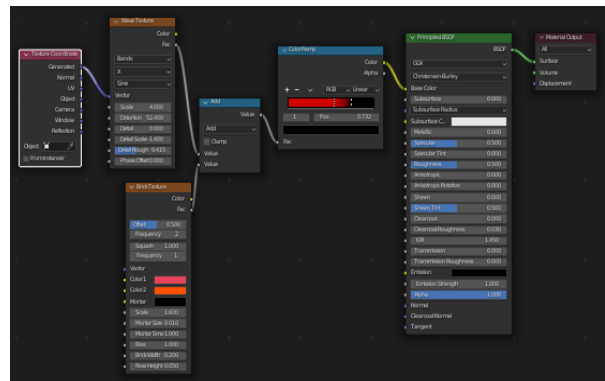
Wall

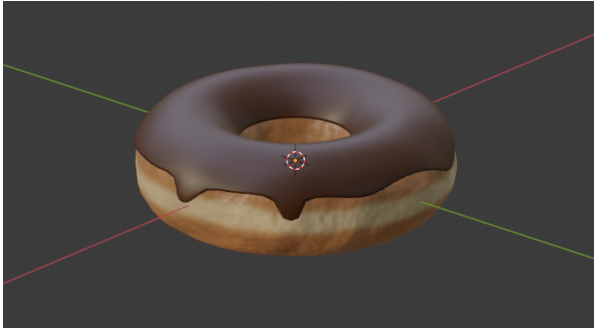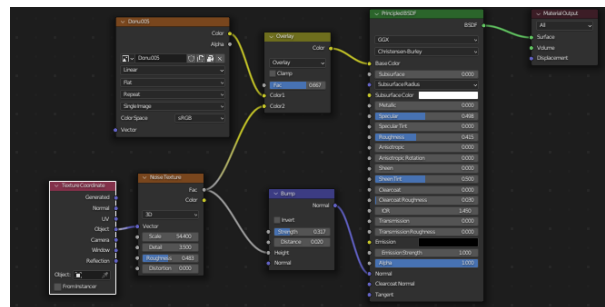| Texture	Used the brick texture to make the wall look like the walls of a house. In addition to that, carved holes in the wall to let sunlight in.

Donut

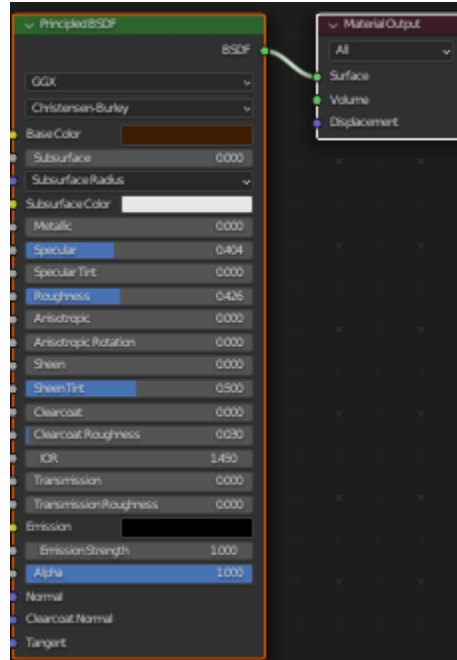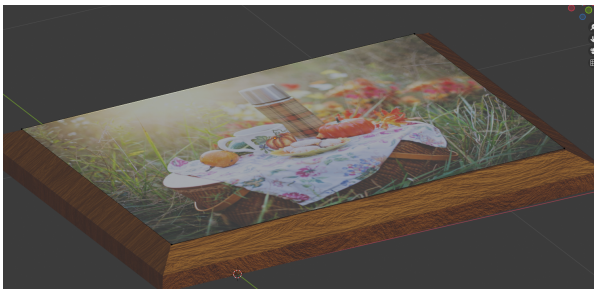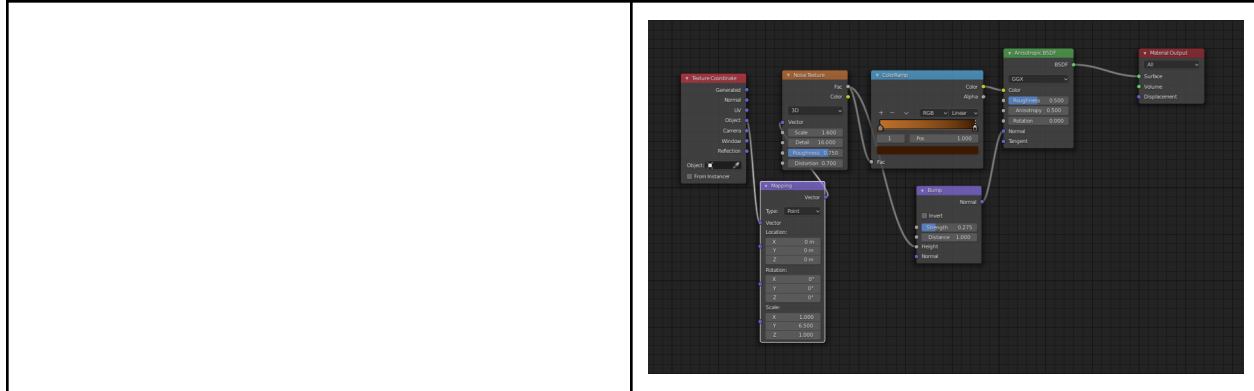| Texture	A simple image texture and a noise texture are used to make the texture of the donut. The icing is a simple material with brown color.

Hanging Picture

Texture	Uses a simple image texture of an image. The wood texture was achieved via a rough noise texture as well as color ramping to simulate the rough look and uneven color of the wood.

Physics used

Ketchup and mustard
- For these two fluids, we used the in-built physics mechanics in Blender. In order for the simulation to work, the simulation had to be baked and stored as a cache then it was used.

Bun drop
- The physics used for the first bun drop was rigid body simulation, not the best for this situation. However, the soft body simulation was not working as intended.

Cheese
- Cloth simulation was used for the dropping of cheese onto the burger effect.

Animation

For this video, we used the scene manager in Blender, where we can create different scenes completely separate or linked together to manage different scenes. Then for each scene, different keyframes were used for animation.

Audio editing

FL Studio 20 was used for music production and editing. The music used was an original composition, which Kam designed to be interesting without being distracting, as well as to fit the flow of the video. Voice lines were performed by both members and edited to balance with the music.

Video editing

Video editing was done in Wondershare Filmora Pro. It was used to combine the render frames, and then combine that animation with the audio. Transition effects and text were added with it as well.

Credits

https://www.youtube.com/watch?v=DtzM8GXTMxE&t=61s oily texture

https://www.youtube.com/watch?v=pi4wA1L8Q6A&t=4702s burger ideas

https://www.youtube.com/watch?v=TPrnSACiTJ4 donut and how to start using Blender.

The dialogs were recorded by ourselves.