

ANIMATION LOGO

CSE 3016 CGM PROJECT REPORT (J Component)

Submitted by :

< UDIT SINGHANIA 17BCE2060 >

in partial fulfillment for the award of the degree of
B. Tech
in
SCOPE



VIT[®]

UNIVERSITY
(Estd. u/s 3 of UGC Act 1956)

Vellore-632014, Tamil Nadu, India

School of Computer Science and Engineering

November, 2018

ABSTRACT

Blender is a professional, free and open-source 3D computer graphics software toolset used for creating animated films, visual effects, art, 3D printed models, interactive 3D applications and video games. Blender's features include 3D modeling, UV unwrapping, texturing, raster graphics editing, rigging and skinning, fluid and smoke simulation, particle simulation, soft body simulation, sculpting, animating, match moving, rendering, motion graphics, video editing and compositing. It also features an integrated game engine.

Digital technologies keep bringing innovations, so design field evolves fast. Motion trends was called one of the leading trends of this year. We use certain softwares for the animation logo and create an animation logo for Scope school. Logos are the heart of brand identity. We can use logos in social media, presentations and promo videos to promote our organisation.

Logos serve to represent a given organization or company through a visual image that can be easily understood and recognized. A logo generally involves symbols, stylized text or both. Logos are often created by a graphic artist in consultation with a company and marketing experts.

INTRODUCTION

A logo is like a heart of a brand identity. It presents a personality of a company or a product and plays a significant role in a branding strategy. A powerful logo can set the connection with the target audience as well as tell the story of a brand. If graphic designers do their job right, a logo establishes an effective brand image which serves as the foundation of a successful marketing strategy.

The age of only print-focused and static graphic design has passed. Modern technology opens great opportunities and professionals need to take an advantage of it. To bring a fresh breath into logo, design experts decided to add some motion.

The level of animation can vary from simple moves to the complete short video presentation. A company and designers agree which kind of animation to choose and how long it will be according to business goals as well as the type of personality they want to demonstrate to the clients.

Today the tools helping to create animated graphics are in open access. Even more, they are clear enough to use so graphic designers often create animation on their own. However, in case a brand needs a complex video, it may be good to approach the specialists of the motion design sphere.

An animated logo is a modern and dynamic way to present a brand. It can show a company character and transfer a certain message attracting clients. Moreover, it is a good way to stand out from competitors since an animated logo guarantees originality. Let's see the list of benefits which an animated logo brings to a brand.

1. An original image:

It's not a secret that some brands have similar logos and even more, sometimes they can be competitors. It may happen not on purpose but just because brands are forced to apply some recognition elements in a logo which would give a hint about their services.

2. It raises brand awareness:

The primary purpose of a logo is to create brand awareness. When you opt for an animated logo, you're creating a more memorable image in your customer's mind. In most cases, logos are static images and it may take several interactions with

your brand for the customer to make a permanent connection. But with the clever use of animation, your entire brand comes to life through motion, sound, and color. More often than not, an animated logo will immediately create an impression in your customer's mind, thus increasing the brand awareness.

3. It is Unique:

An animated logo has better chances of connecting emotionally with your ideal target audience by contributing to the overall story behind your brand. Through the use of the colors and the sounds used in the animation, an animated logo conveys the vibe of your brand instantly. It also has better chances of keeping the viewer's attention for a longer period of time. Considering how much content we consume on a daily basis, capturing and keeping the attention of your target audience is no easy feat. But with an animated logo, that problem is significantly reduced and you will be miles ahead of your competition.

4. It adds consistency:

As a brand, you've probably invested in promotional or explainer videos for your product or service. You can add a more professional feel to any of the videos used in your marketing by adding an animated version of your logo as an intro or outro. It adds consistency and reinforces your brand image over and over again.

5. It's inexpensive:

It's no secret that marketing expenses can get high pretty quickly. To stay on top of the game, you have to come up with new marketing material and be willing to try out new strategies. That can quickly eat through your marketing budget. But an animated logo can be used in many different ways and it's a one-time investment that you can use for years to come.

6. Evoked emotions:

People like fresh and unusual ideas and an animated logo is a good way to surprise them. An effective logo animation can become a trigger for excitement, joy, and intrigue. If a logo can bring some positive emotions to the target audience, there are great chances that they will remember a brand and associate it with something pleasant.

7. Company professionalism:

Customers may not be experts in marketing field still they understand what is trending. A lot of famous companies including Google have already acquired animated versions of their logos and proudly share it with the whole world. That's why when a brand shows that they keep up with the innovations, people see them as the real professional.

Where to use our animated logo:

As mentioned above, our animated logo can be used in many different ways:

Use it on Instagram: Instagram is a highly visual social media platform which makes it a perfect place to show off our logo. Use it as a short video or as a part of your Instagram story.

Intro/Outro in our videos: No matter what type of video content we're putting out, use our animated logo as an intro to build brand recognition or as an outro to serve as a call to action that sends viewers to our website

During the video: We can also use a smaller version of our animated logo during the video in one of the bottom corners.

On our website, in place of a regular logo: Most of the brands use their static logo in the header area of website. Put a unique spin on this by using the animated version of logo. Set the animation to play once and they'll be sure to stand out among the competition.

On your Facebook page: Post a video file or a link to animated logo when they're sharing promotional content from their website

On your Twitter profile – Twitter has exploded with GIFs recently and it also auto plays videos so it makes sense to share our brand new animated logo there. It's a great attention-grabber that's sure to make our followers stop and pay attention on this fast-paced social network.

LITREATURE SURVEY

We use Disney's Twelve Basic Principles of Animation which were introduced by the Disney animators Ollie Johnston and Frank Thomas in their 1981 book *The Illusion of Life: Disney Animation*.^{[a][1]} Johnston and Thomas in turn based their book on the work of the leading Disney animators from the 1930s onwards, and their effort to produce more realistic animations. The main purpose of the principles was to produce an illusion of characters adhering to the basic laws of physics, but they also dealt with more abstract issues, such as emotional timing and character appeal.

The book and some of its principles have been adopted by some traditional studios, and have been referred to by some as the "Bible of animation."^[2] In 1999 this book was voted number one of the "best animation books of all time" in an online poll.^[3] Though originally intended to apply to traditional, hand-drawn animation, the principles still have great relevance for today's more prevalent computer animation.

3D computer graphics creation falls into three basic phases:

3D modeling – the process of forming a computer model of an object's shape

Layout and animation – the placement and movement of objects within a scene

3D rendering – the computer calculations that, based on light placement, surface types, and other qualities, generate the image

Modeling^[4]

The model describes the process of forming the shape of an object. The two most common sources of 3D models are those that an artist or engineer originates on the computer with some kind of 3D modeling tool, and models scanned into a computer from real-world objects. Models can also be produced procedurally or via physical simulation. Basically, a 3D model is formed from points called vertices (or vertexes) that define the shape and form polygons. A polygon is an area formed from at least three vertexes (a triangle). A polygon of n points is an n -gon. The overall integrity of the model and its suitability to use in animation depend on the structure of the polygons.

Materials and textures[5]

Which includes giving the model the properties that the render engine uses to render the model, in an unbiased render engine like blender cycles one can give the model materials to tell the engine how to treat light when it hits the surface.

Textures are also used to give the material color like a color or albedo map, or give the surface features like bump or normal maps. It can be also used to deform the model itself like a displacement map.

Layout and animation[6]

Before rendering into an image, objects must be laid out in a scene. This defines spatial relationships between objects, including location and size. Animation refers to the temporal description of an object (i.e., how it moves and deforms over time.

Popular methods include keyframing, inverse kinematics, and motion capture).

These techniques are often used in combination. As with animation, physical simulation also specifies motion.

Rendering[7]

Rendering converts a model into an image either by simulating light transport to get photo-realistic images, or by applying an art style as in non-photorealistic rendering. The two basic operations in realistic rendering are transport (how much light gets from one place to another) and scattering (how surfaces interact with light). This step is usually performed using 3D computer graphics software or a 3D graphics API. Altering the scene into a suitable form for rendering also involves 3D projection, which displays a three-dimensional image in two dimensions.

Although 3D modeling and CAD software may perform 3D rendering as well (e.g. Autodesk 3ds Max or Blender), exclusive 3D rendering software also exists.

With the growing ubiquity of digital devices, moving interfaces and adapting technology, motion design has become an important part of a designers creative options. We use 12 principles that will govern our animation logo, namely, squash and stretch, staging, straight ahead action & pose to pose, slow in and slow out, arc, secondary action, timing, solid drawing and appeal. These features play an important role in animation logo and we will be focussing on the different aspects of these features and thereby creating an effective logo.

The most important principle is "squash and stretch",[8] the purpose of which is to give a sense of weight and flexibility to drawn objects. In realistic animation, however, the most important aspect of this principle is the fact that an object's

volume does not change when squashed or stretched. If the length of a ball is stretched vertically, its width (in three dimensions, also its depth) needs to contract correspondingly horizontally.[9]

Animation is the process of designing, drawing, making layouts and preparation of photographic sequences which are integrated in the multimedia and gaming products. Animation involves the exploitation and management of still images to generate the illusion of movement. A person who creates animations is called animator. He / she use various computer technologies to capture the still images and then to animate these in desired sequence.

Multimedia is the term used to represent combination of visual and audio materials gathered from various resources and then added into one single combination. A multimedia product can be sets of texts, graphic arts, sounds, animations and videos. Precisely, term multimedia is used to refer visual and audio materials into a single common presentation which can be played in a computer including CD ROM or digital video, internet or web technology, streaming audio or video and data projection system etc.

Modern entertainment industry i.e. film and television has gained new heights because of advances in animation, graphics and multimedia. Television advertisements, cartoons serials, presentation and model designs - all use animation and multimedia techniques.

Models of reflection/scattering and shading are used to describe the appearance of a surface. Although these issues may seem like problems all on their own, they are studied almost exclusively within the context of rendering. Modern 3D computer graphics rely heavily on a simplified reflection model called Phong reflection model (not to be confused with Phong shading). In refraction of light, an important concept is the refractive index. In most 3D programming implementations, the term for this value is "index of refraction" (usually short for IOR). Shading can be broken down into two different techniques, which are often studied independently:

UV unwrapping

At the point when a model is made as a polygon work utilizing a 3D modeler, UV facilitates (otherwise called surface directions) can be created for every vertex in the work. One path is for the 3D modeler to unfurl the triangle work at the creases, consequently spreading out the triangles on a level page. On the off chance that the work is an UV circle, for instance, the modeler may change it into an equirectangular projection. When the model is unwrapped, the craftsman can paint a surface on every triangle exclusively, utilizing the unwrapped work as a layout.

At the point when the scene is rendered, every triangle will guide to the proper surface from the "decalsheet".

An UV guide can either be produced naturally by the product application, made physically by the craftsman, or a blend of both. Regularly an UV guide will be produced, and afterward the craftsman will alter and enhance it to limit creases and covers. In the event that the model is symmetric, the craftsman may cover inverse triangles to permit painting the two sides all the while.

UV organizes are alternatively connected per face.[19] This implies a mutual spatial vertex position can have distinctive UV arrangements for every one of its triangles, so contiguous triangles can be cut separated and situated on various regions of the surface guide.

The UV mapping process at its easiest requires three stages: unwrapping the work, making the surface, and applying the texture.[18]

UV mapping may utilize rehashing surfaces, or an injective 'one of a kind' mapping as an essential for heating.

Projection

Perspective Projection

The shaded three-dimensional items must be smoothed so the presentation gadget - to be specific a screen - can show it in just two measurements, this procedure is called 3D projection. This is finished utilizing projection and, for most applications, point of view projection. The essential thought behind point of view projection is that protests that are further away are made littler in connection to those that are nearer to the eye. Projects create point of view by duplicating an expansion steady raised to the intensity of the negative of the separation from the eyewitness. An expansion consistent of one implies that there is no point of view. High widening constants can cause an "angle eye" impact in which picture bending starts to happen. Orthographic projection is utilized mostly in CAD or CAM applications where logical displaying requires exact estimations and safeguarding of the third measurement.

Since a logo is the visual element implying an association, logo configuration is an essential territory of visual computerization. A logo is the focal component of a mind boggling ID framework that must be practically stretched out to all correspondences of an association. In this manner, the plan of logos and their fuse in a visual personality framework is a standout amongst the most troublesome and

essential territories of visual communication. Logos fall into three arrangements (which can be consolidated). Ideographs, for example, Chase Bank, are totally dynamic structures; pictographs are famous, illustrative plans; logotypes (or wordmarks) delineate the name or organization initials. Since logos are intended to speak to organizations' brands or corporate characters and encourage their quick client acknowledgment, it is counterproductive to much of the time overhaul logos.

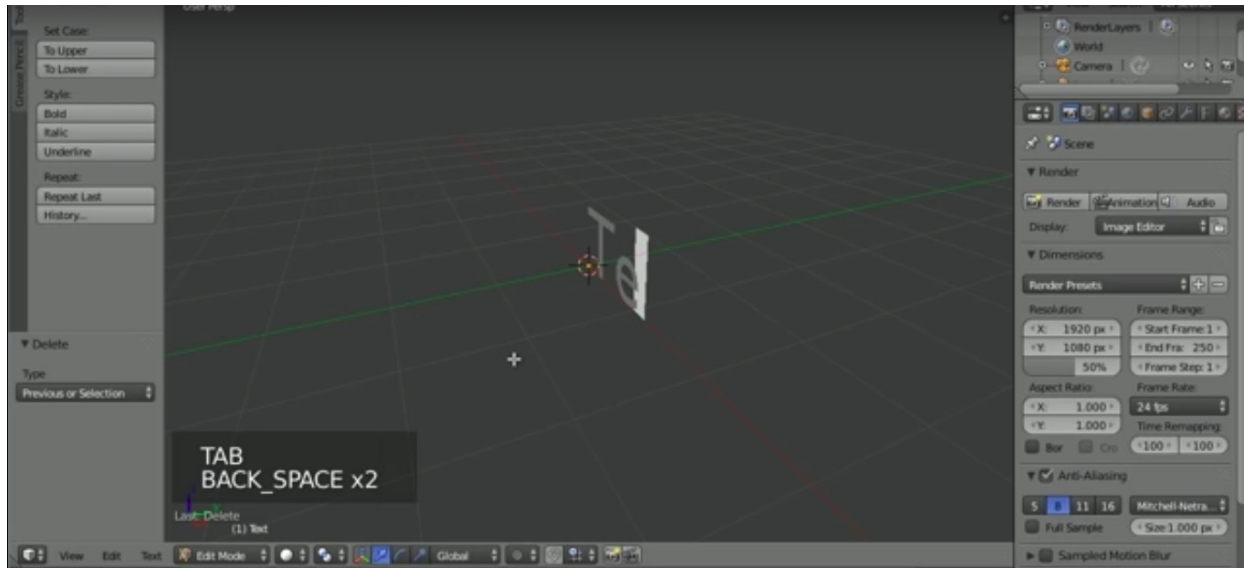
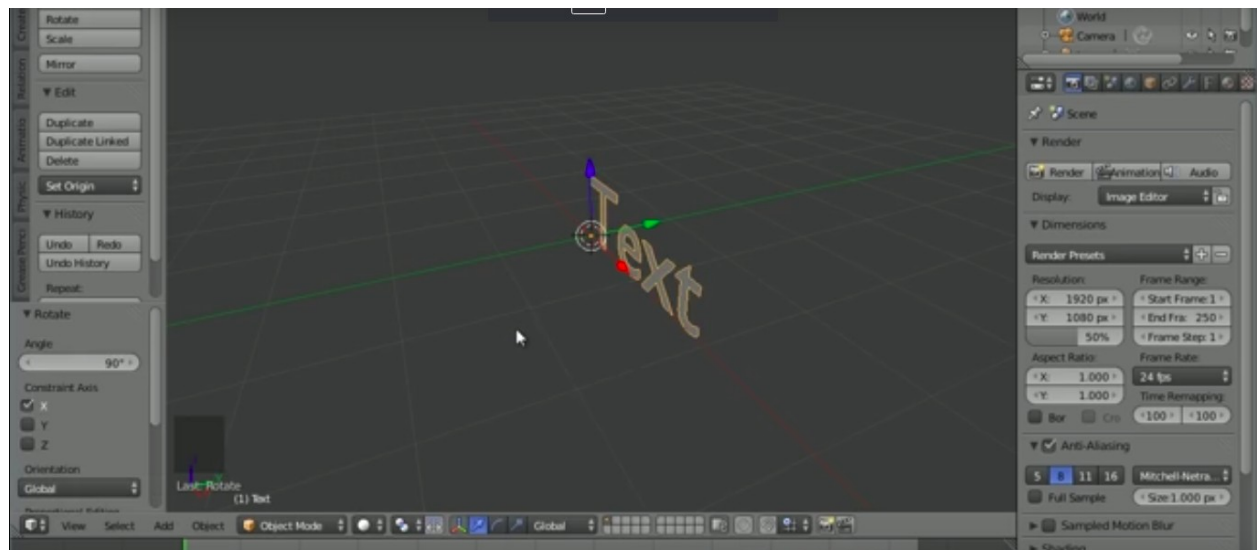
The logo structure calling has generously expanded in numbers throughout the years since the ascent of the Modernist development in the United States in the 1950s.[12] Three architects are widely[13] viewed as the pioneers of that development and of logo and corporate character plan: The first is Chermayeff and Geismar,[14] which is the firm in charge of a substantial number of notorious logos, for example, Chase Bank (1964), Mobil Oil (1965), PBS (1984), NBC (1986), National Geographic (2003), and others. Because of the effortlessness and intensity of their plans, a significant number of their prior logos are still being used today. The firm as of late structured logos for the Library of Congress and the form mark Armani Exchange. Another pioneer of corporate personality configuration is Paul Rand,[15] who was one of the originators of the Swiss Style of visual depiction. He structured numerous publications and corporate characters, including the well known logos for IBM, UPS, and ABC. The third pioneer of corporate personality configuration is Saul Bass.[16] Bass was in charge of a few unmistakable logos in North America, including both the Bell Telephone logo (1969) and successor AT&T Corporation globe (1983). Other surely understood plans were Continental Airlines (1968), Dixie (1969), and United Way (1972). Afterward, he would create logos for various Japanese organizations also. An imperative advancement in the documentation of logo configuration is the investigation of French trademarks by history specialist Edith Amiot and thinker Jean Louis Azizollah.[17]

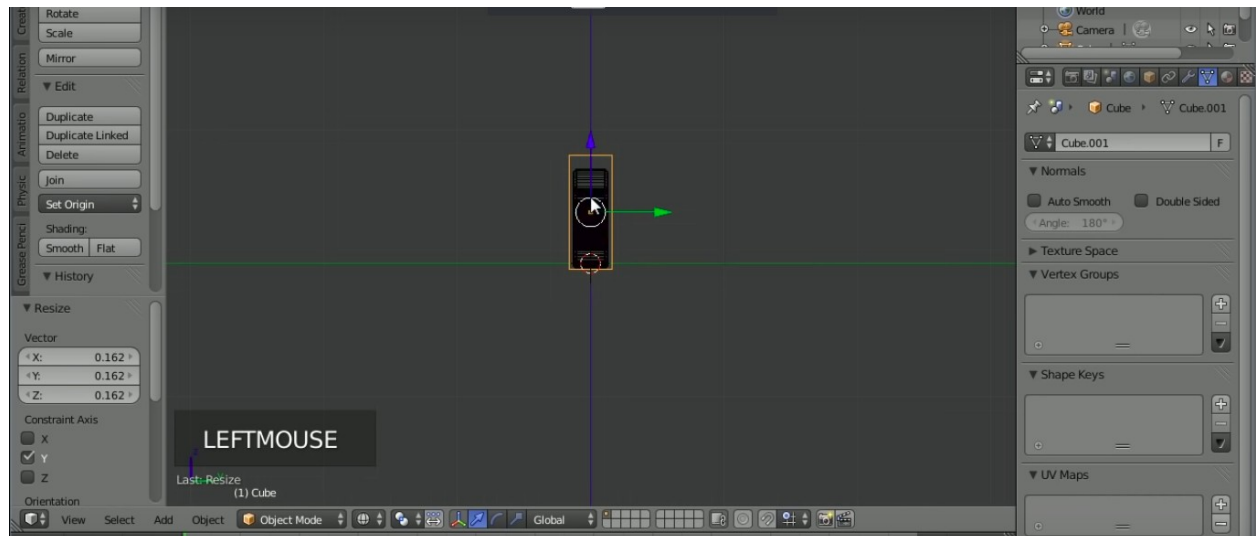
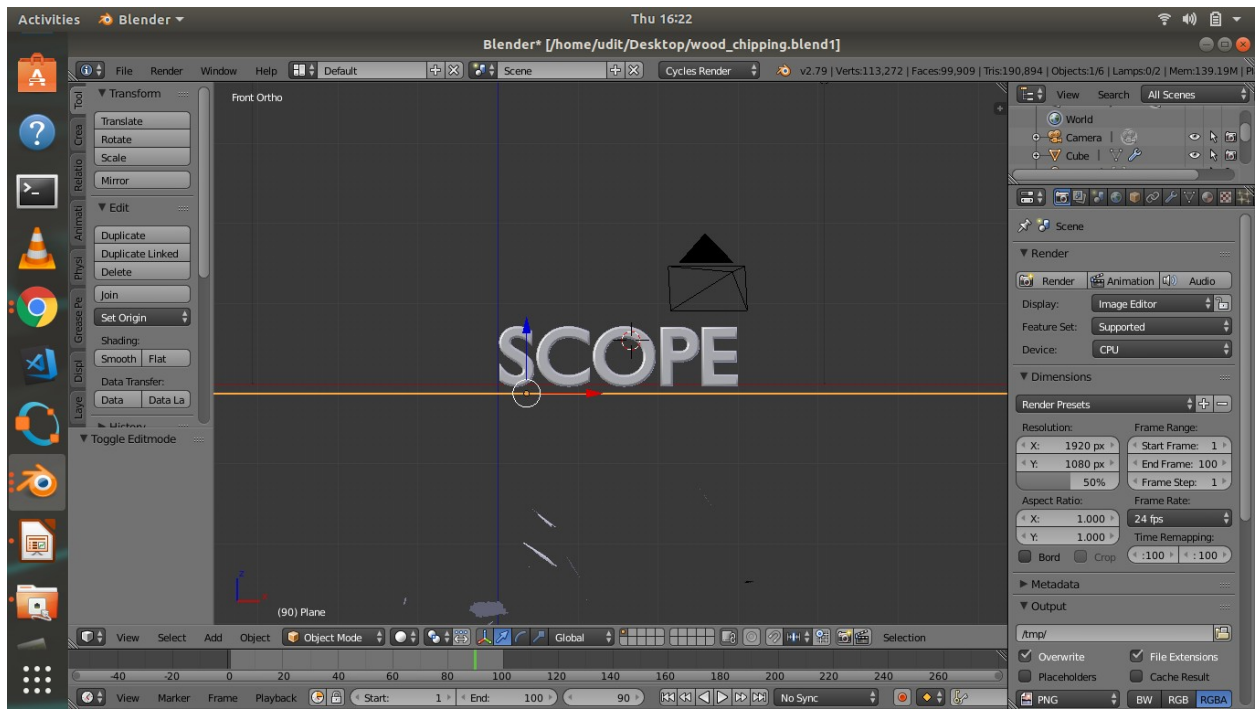
PROPOSED METHODOLOGY

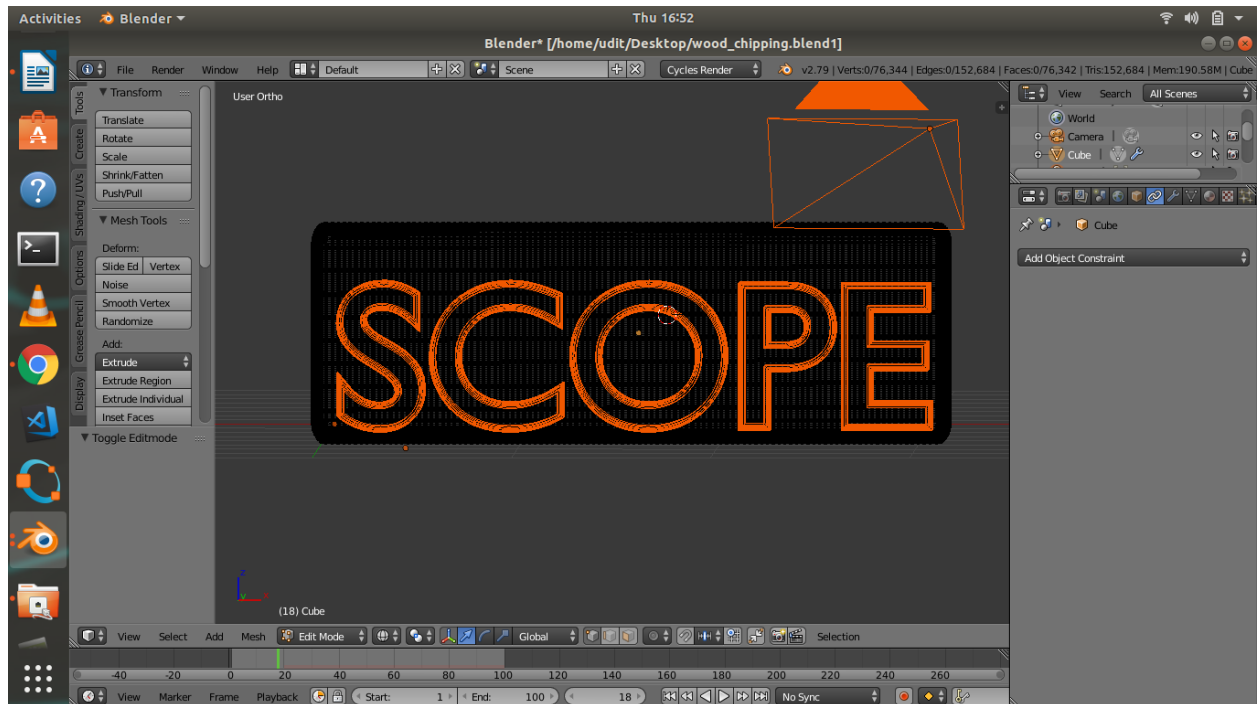
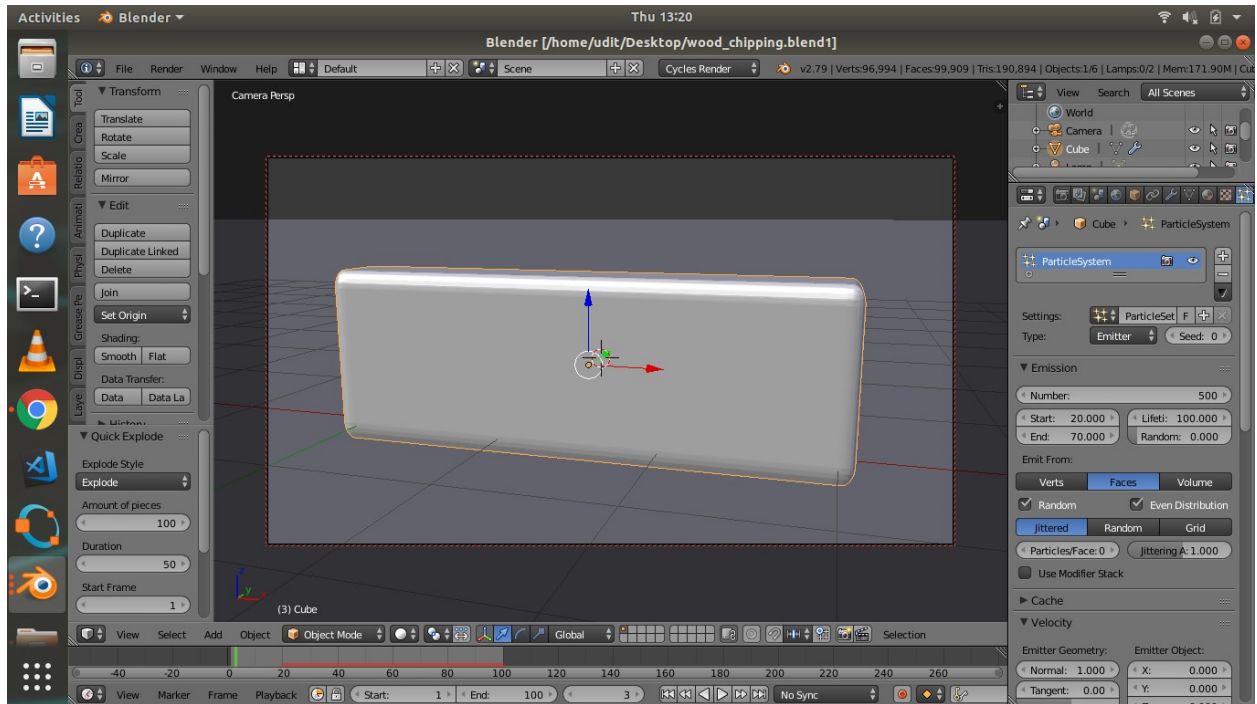
We produce SCOPE logo in wood chipping form and add sound effects to it.

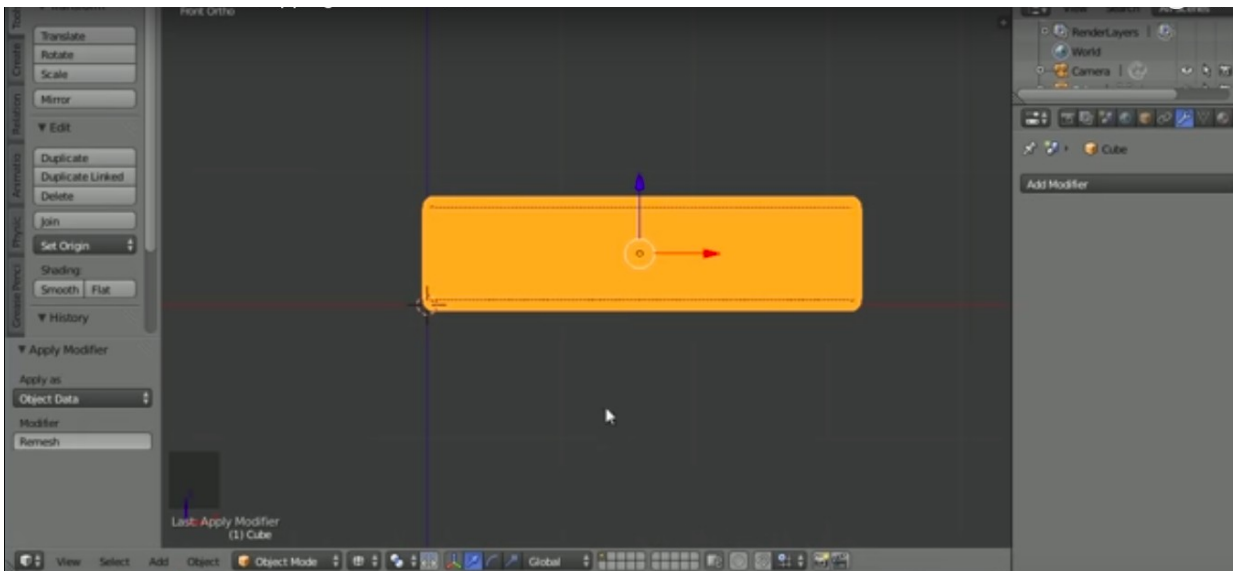
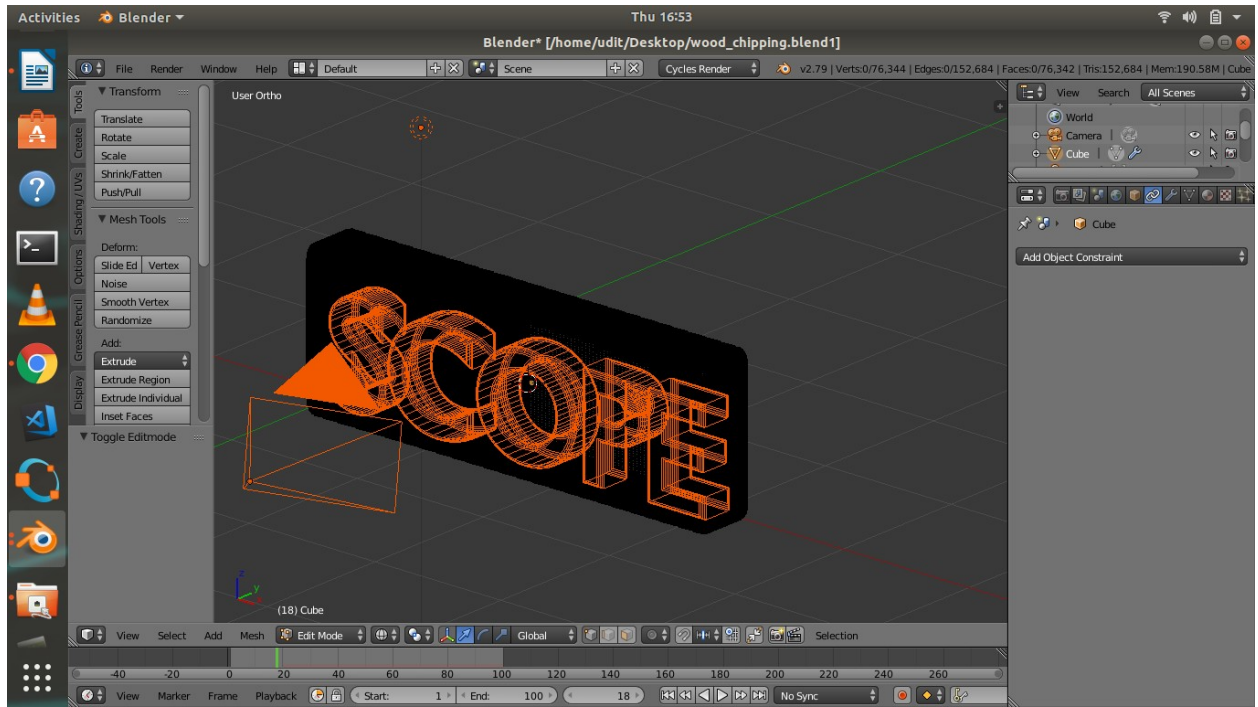
- ✓ Text added.
- ✓ Block of wood (cube) added.
- ✓ Edges of cube beveled by using the Bevel Modifier.
- ✓ Geometry added to the cube by using the Remesh Modifier.
- ✓ Cube material set and wooden Image Texture added.
- ✓ UV unwrap cube using “Project from View (Bounds).”
- ✓ Depth added to the wood texture by using the Node Editor to add a Displacement.
- ✓ Wood material named.
- ✓ Wood material applied to text.
- ✓ Text converted to mesh.
- ✓ UV unwrap text using “Project from View (Bounds).”
- ✓ Floor added.
- ✓ Lighting is setup.
- ✓ Camera view is setup.
- ✓ Wood chipping added using Quick Effects.
- ✓ Timeline overview.
- ✓ Particle System modifications.
- ✓ Blend texture added to control how the wood chips break away.
- ✓ Thickness added to wood chips using the Solidify Modifier.
- ✓ Collision physics setup for the floor and the text.
- ✓ More particles are added.
- ✓ Render options are setup.
- ✓ Begin Animation rendering.
- ✓ Play Animation
- ✓ Adding Sound effects in openshot video editor
- ✓ Final Animation

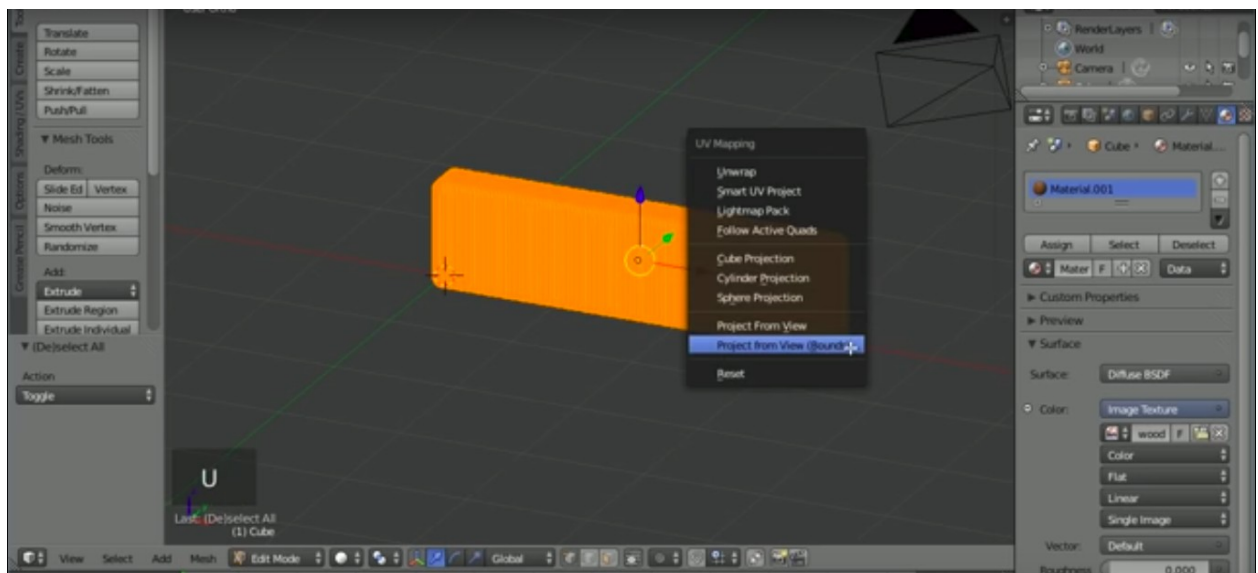
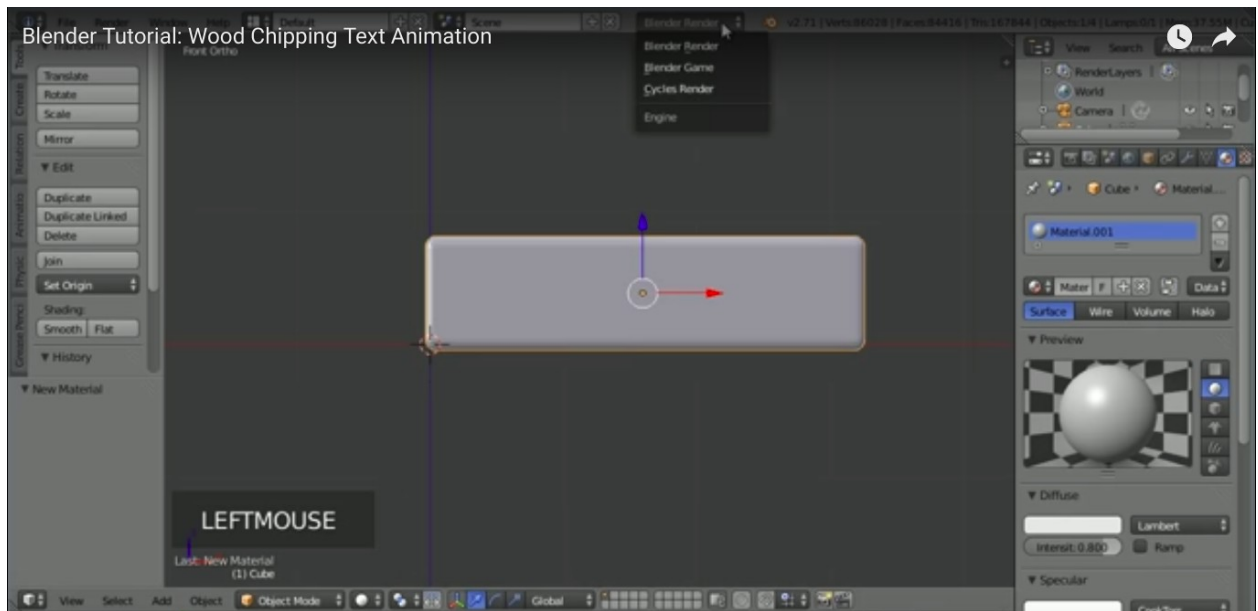
RESULTS:

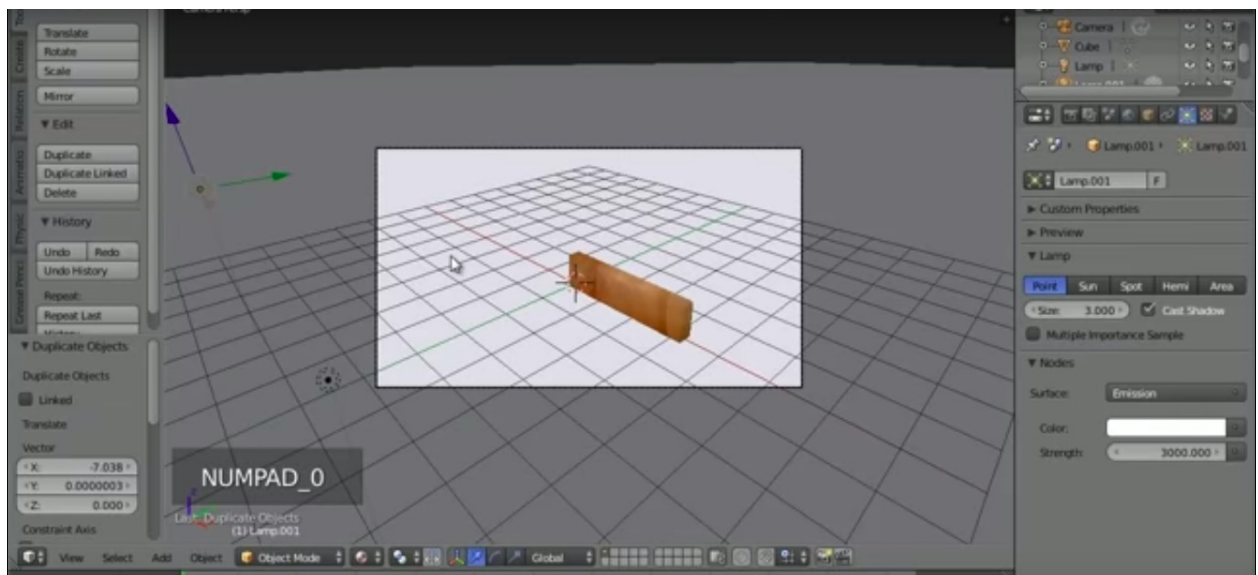
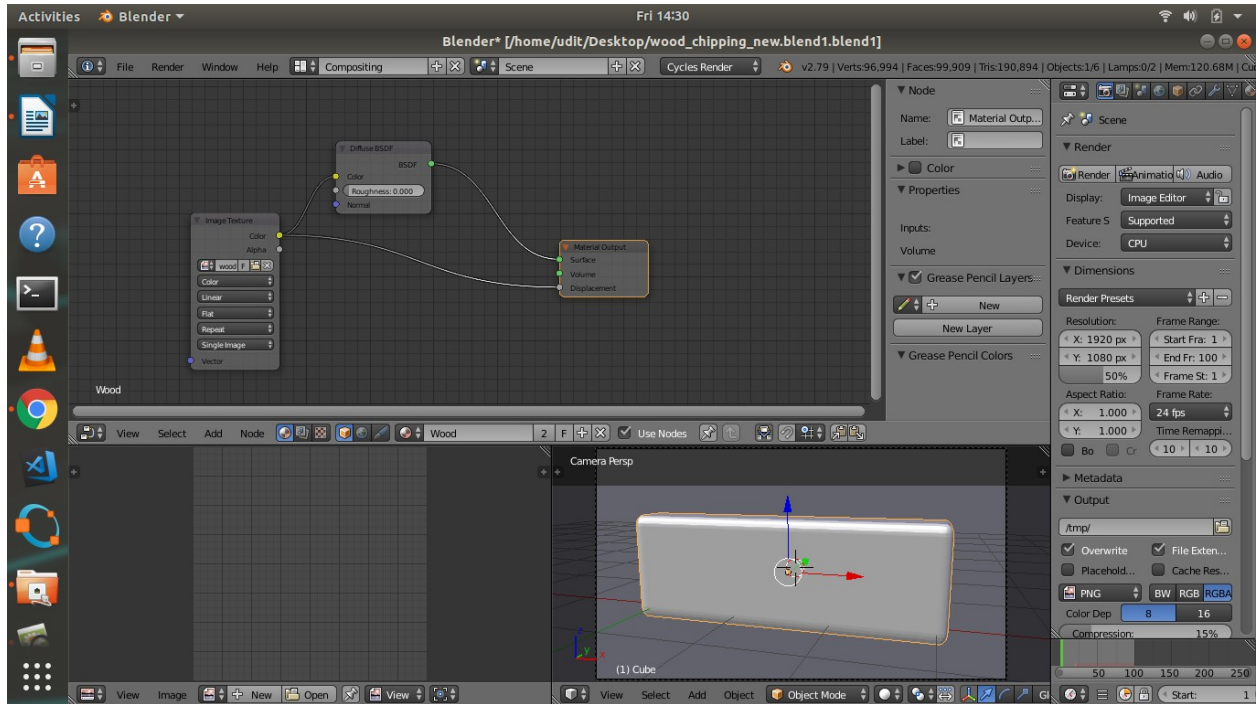


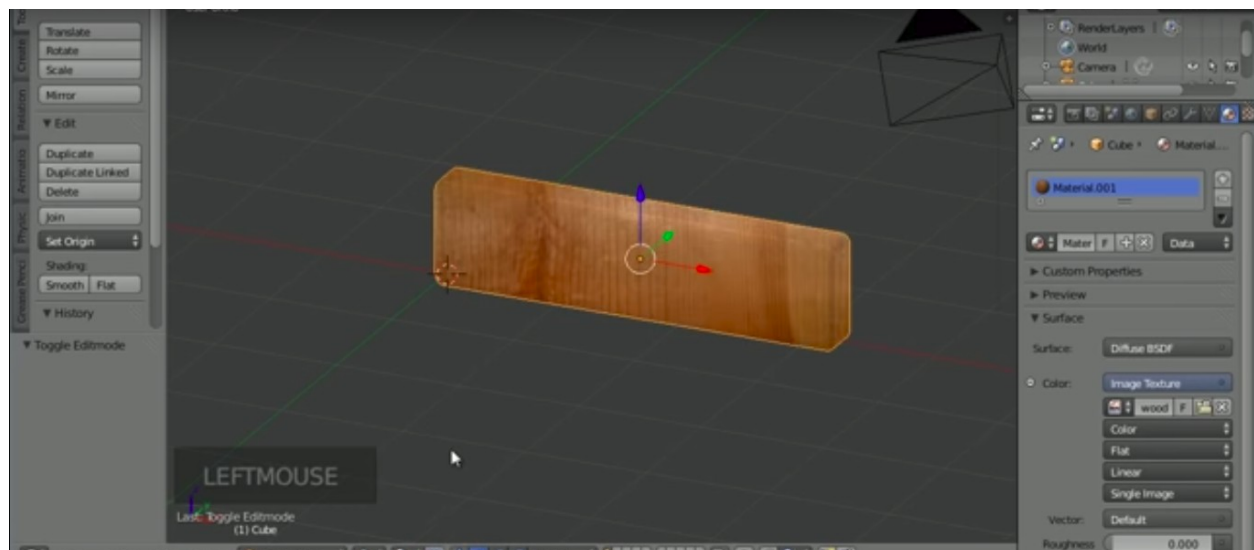
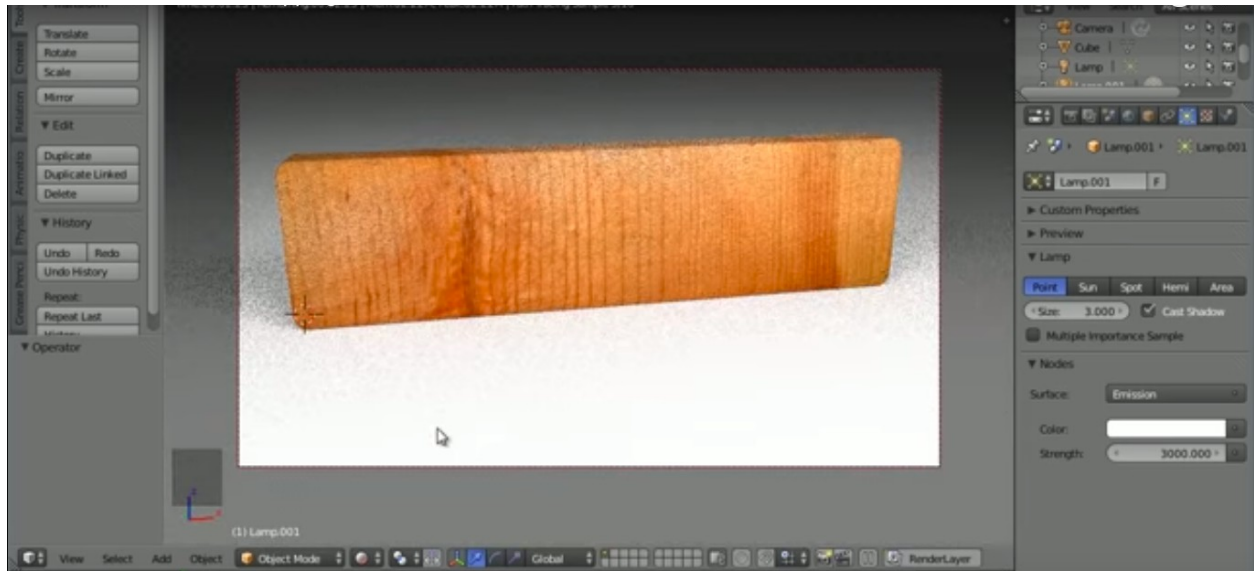


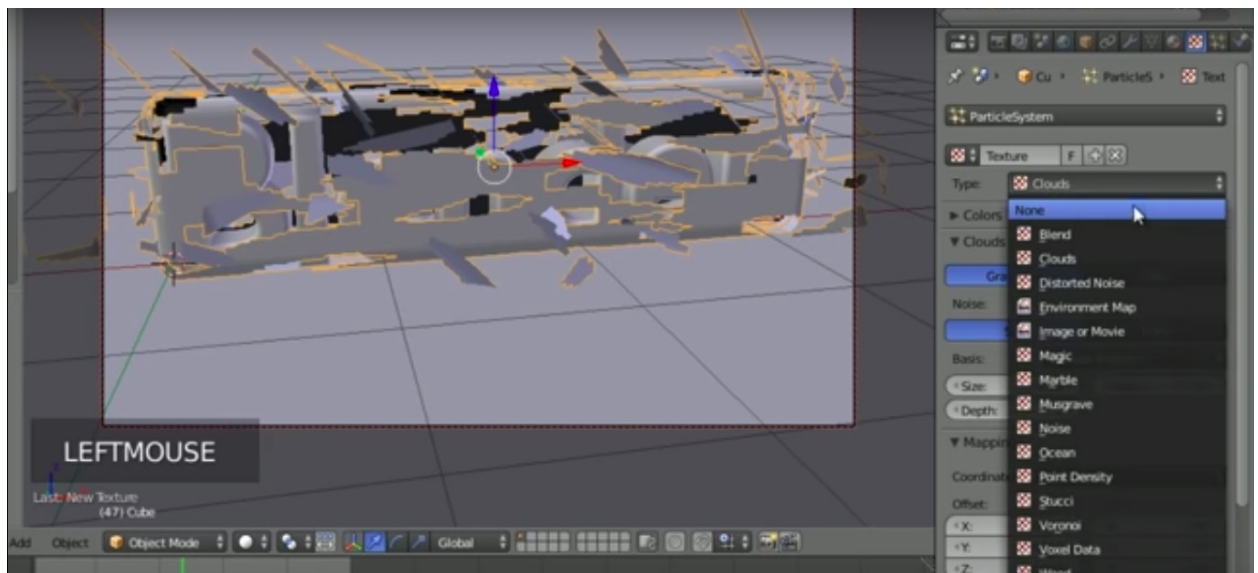
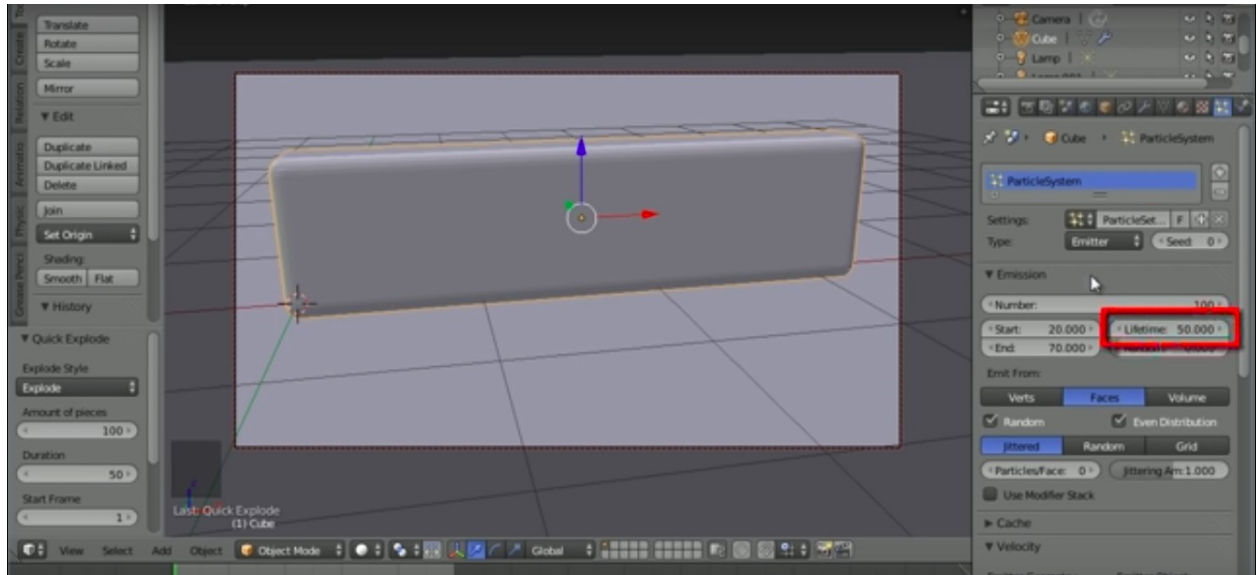


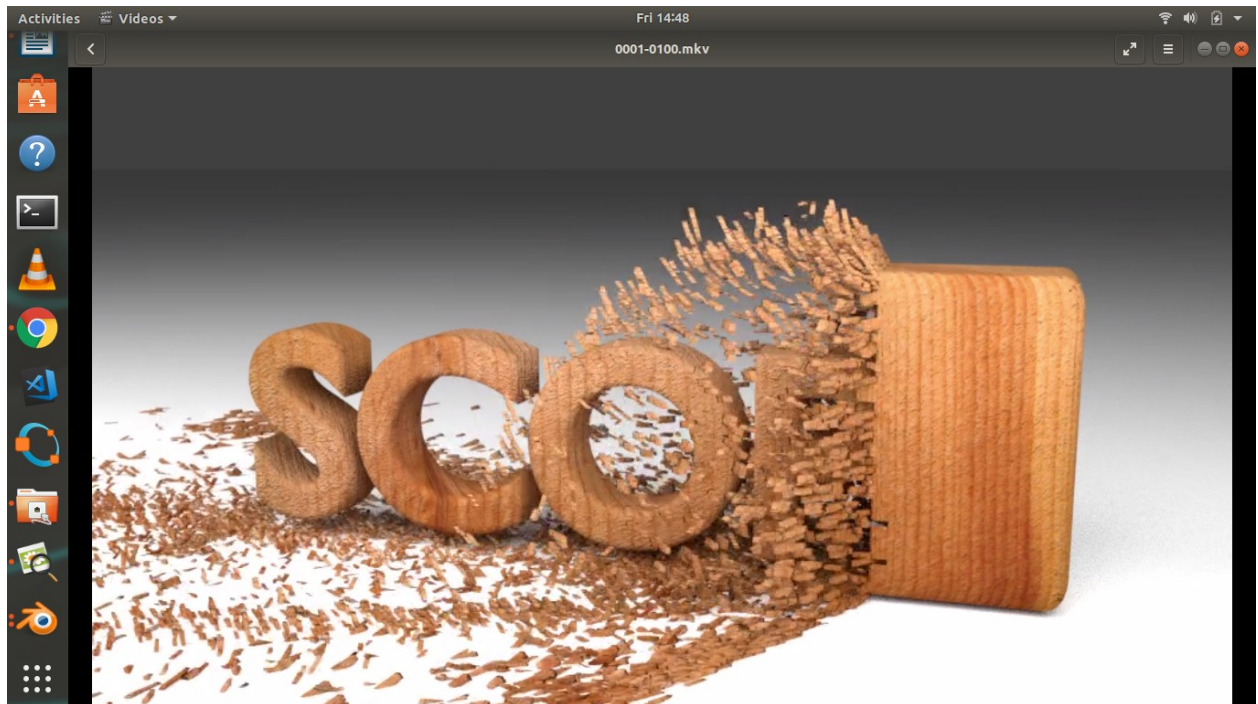
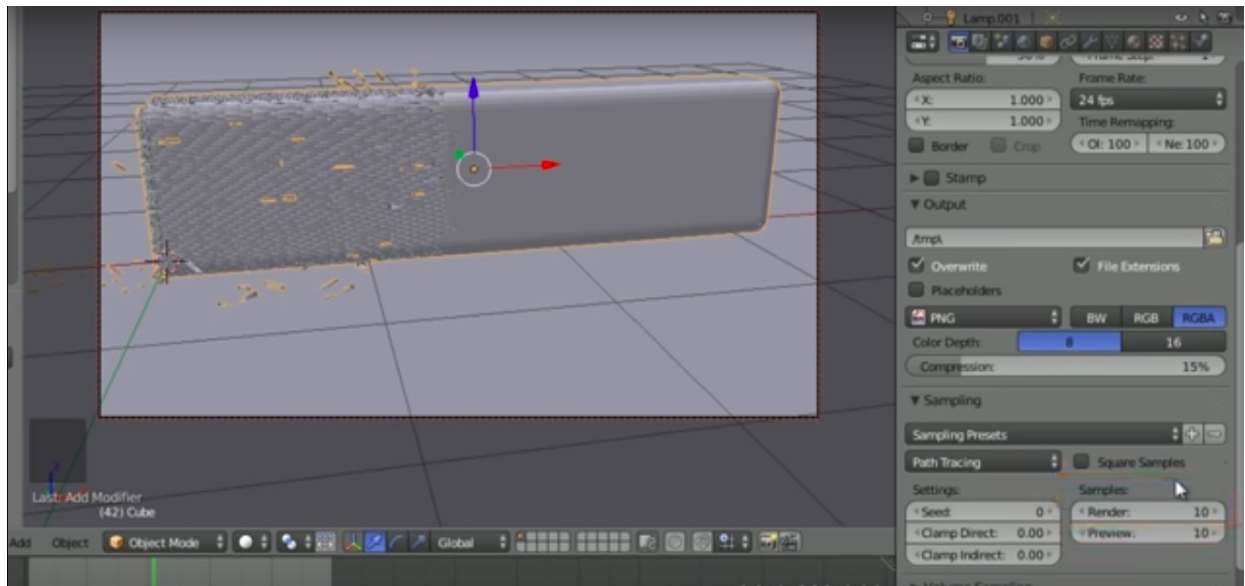














CONCLUSION

We saw the making of animation logo of SCOPE school and zooming in and also we added sound and voiceover of 'Welcome to School of Computer Science and Engineering'.

We used physics, UV unwrapping, camera view setup, particle simulation, and many other concepts were applied. The rendering took 100 frames in consideration and it took about 2-3 hours to render.

We can also recreate the logo with fire animation, water animation, drilling animation and much more. There are certain advancements in the industry of logo making, we start from scratch here but we can also map the image of the logo and then create a solid figure of the logo and with the knowledge of lighting and shadow, we can create a simple nike logo also. Certain sound animations can be added though we don't touch that topic in our project.

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