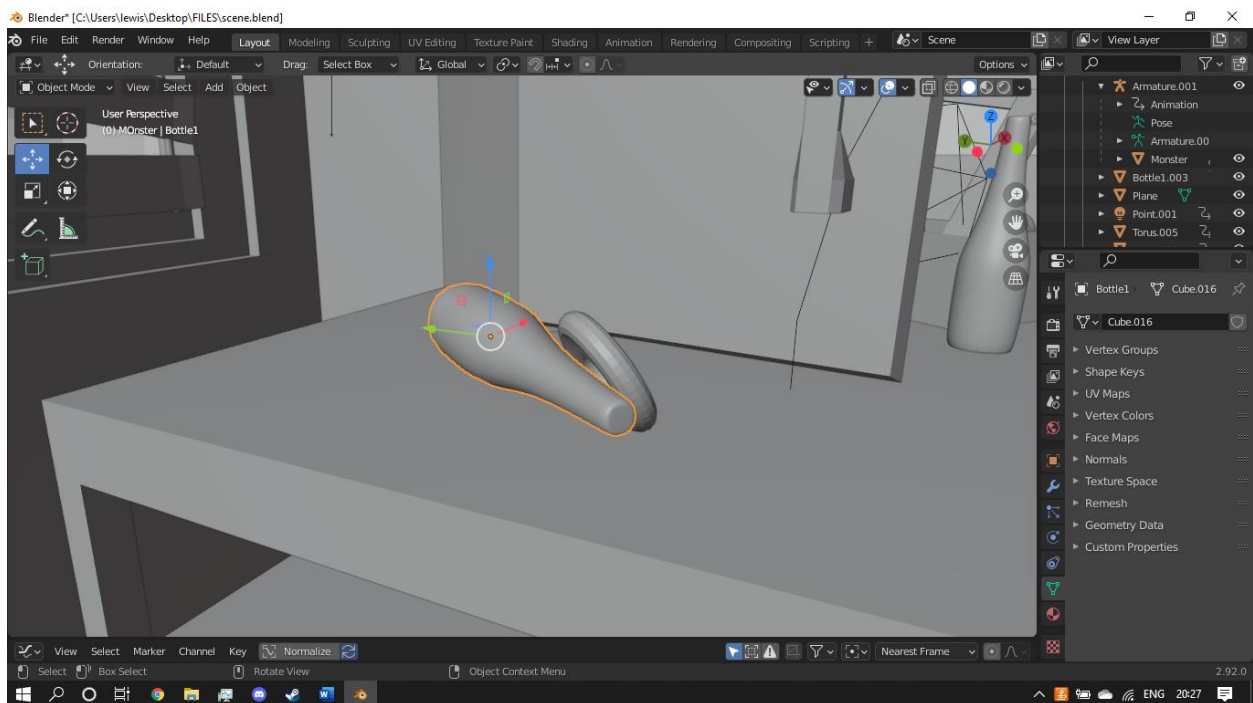


3D modelling report

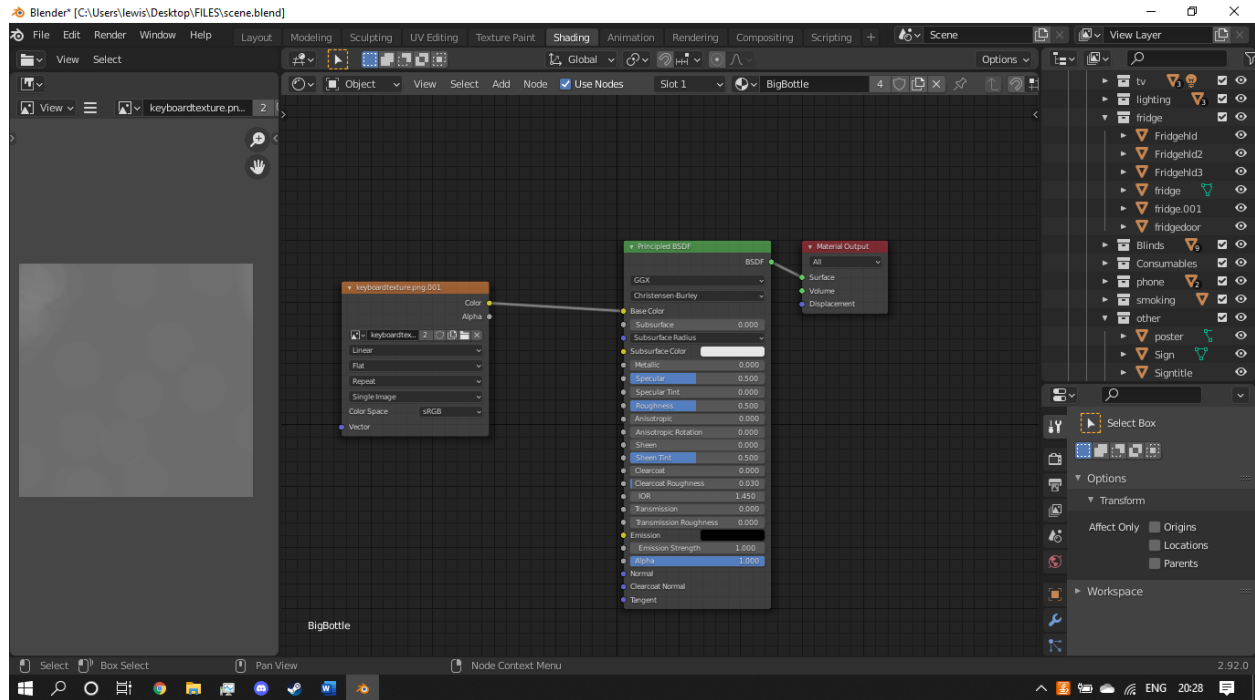
Foreword

On using blender. The reason why I used blender is because of two things firstly It is much less taxing in terms of computer processing as Maya not only takes a long time to set up and run but the performance on my machine is not suitable to produce a good product: secondly, I have a lot more confidence in blender and the work I produce in blender is much better than maya so please consider the reason why I decided to use blender.

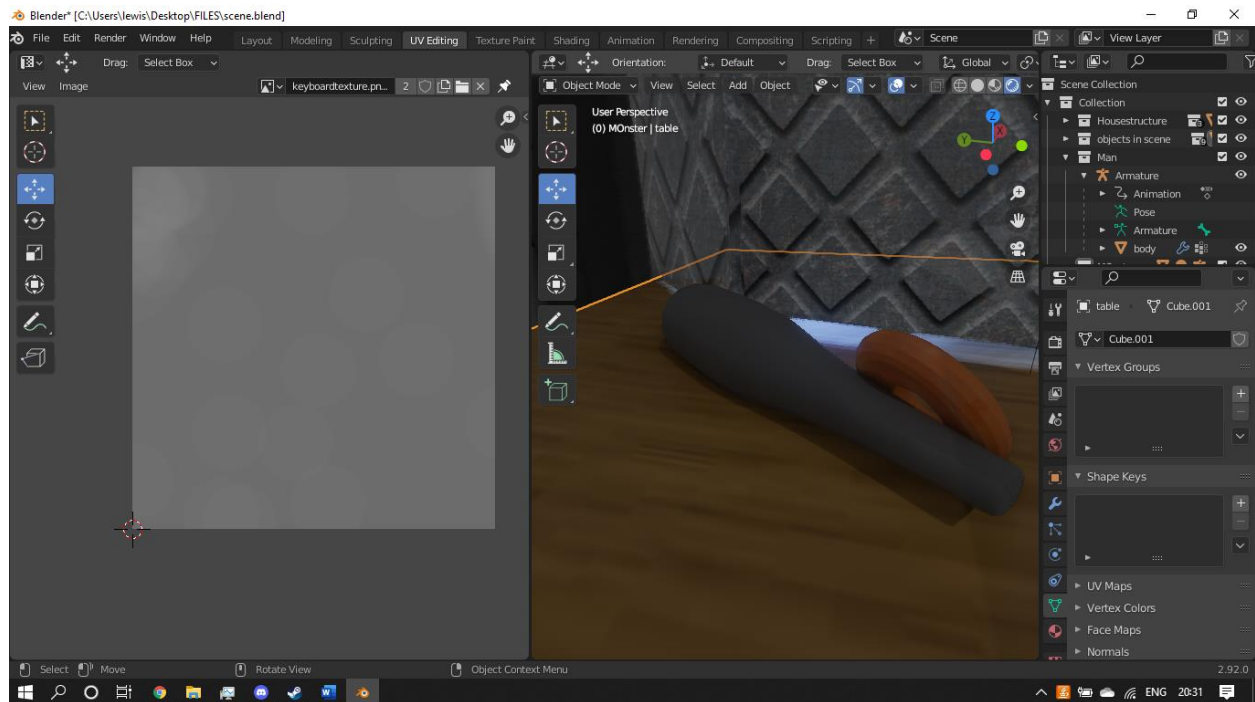
Development



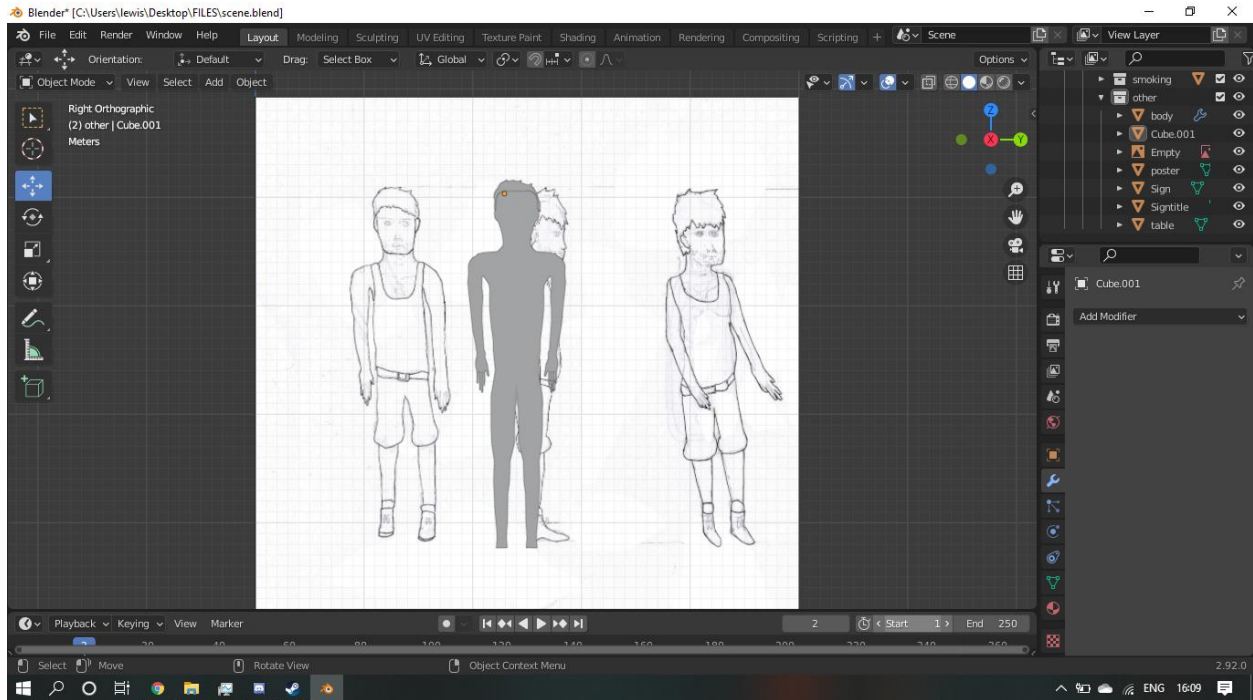
Firstly, I will go over texturing so in the above image I have highlighted a bottle object which I have unwrapped the faces to then texture it. Now below you can see me apply a texture I have made to the base colour of the material which the model uses. This will allow the model to have a texture when it is all rendered.



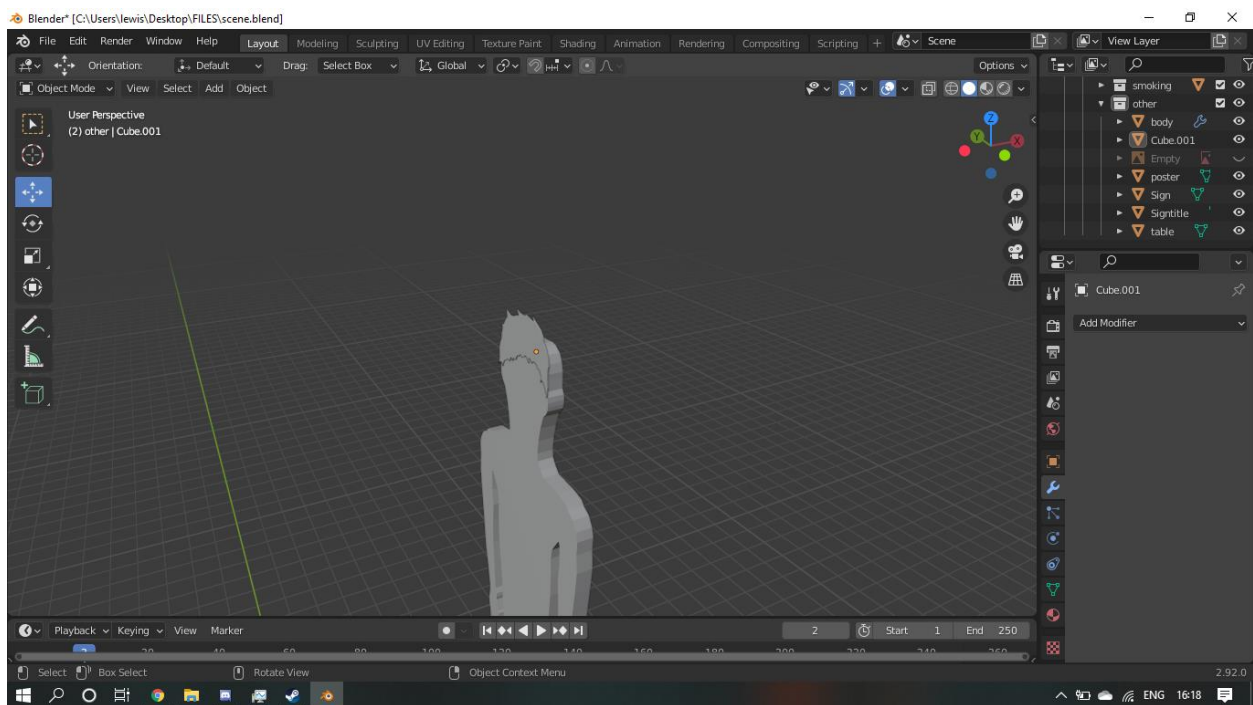
And below you see the material rendered on the bottle model.



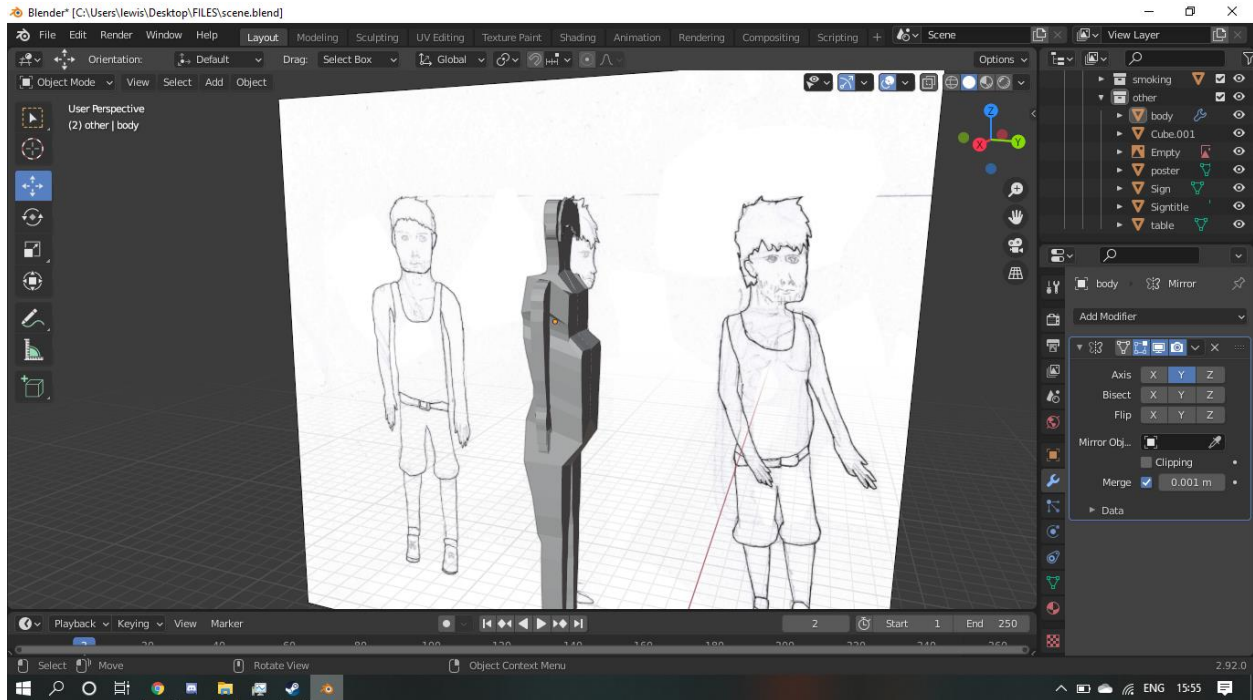
Now I will detail my character modelling process for the human and monster models. So, using the character concept art I did the outline of the model using a plane. I mirrored the model so I can model it more quickly and accurately.



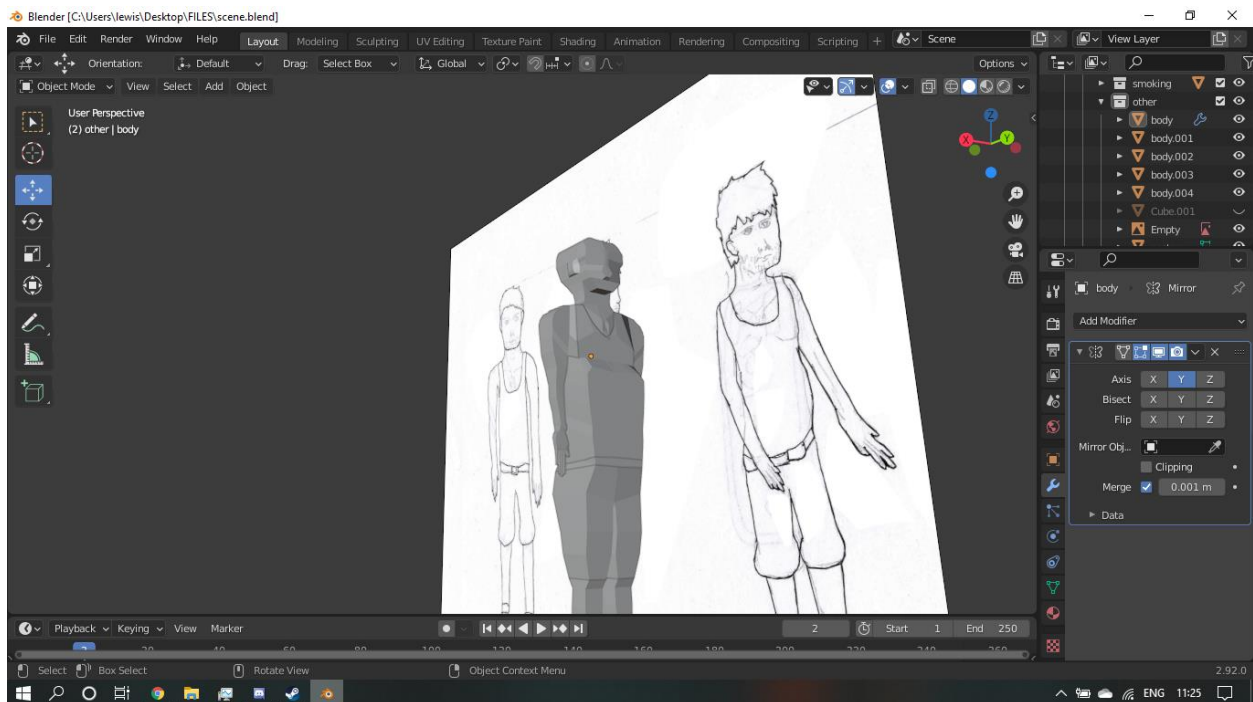
Next, I added some depth to the model using the solidify: Also, I modelled the hair separately at the moment though I will rejoin them through the Boolean modifier.



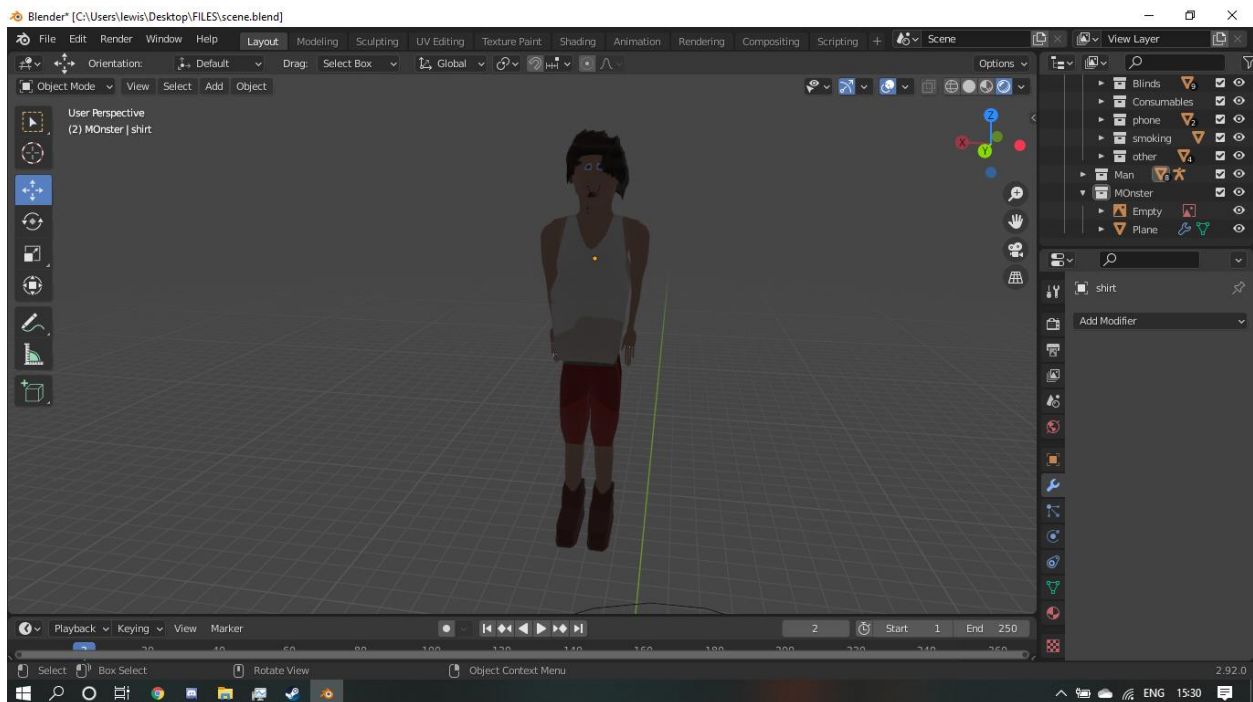
Here is the model from the y axis I have added more depth and shape to the man's model with the arms connecting to the body and the development of the hands.



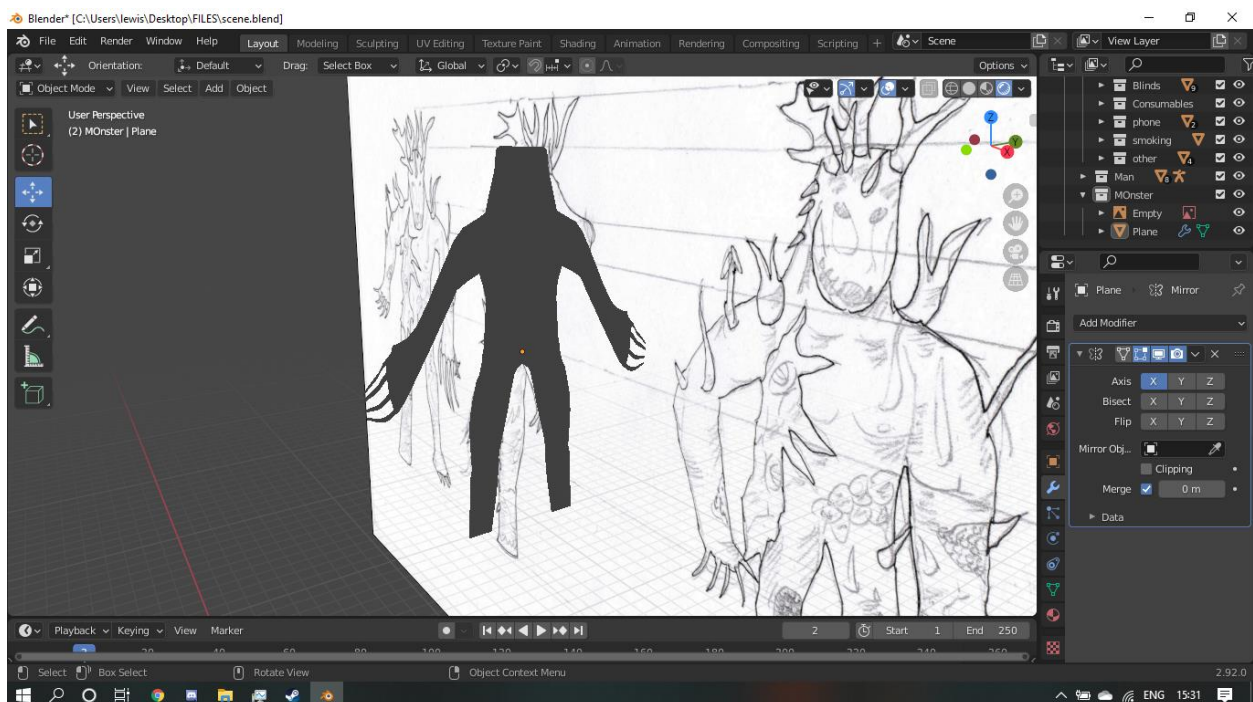
Next Here I have decided to ignore the hair model and just focus on the body separating parts of it so areas like the shirt have unique textures I have also added more detail to the face adding ears and eyes and a nose definition. Now I encountered issues with separating parts of the model as a parent this is because when I came to rigging the armature each object that was parented wouldn't respond to the armature, so I had to rejoin all the objects back and then make a new texture map that contained all the separate textures for each of the former objects on the model.



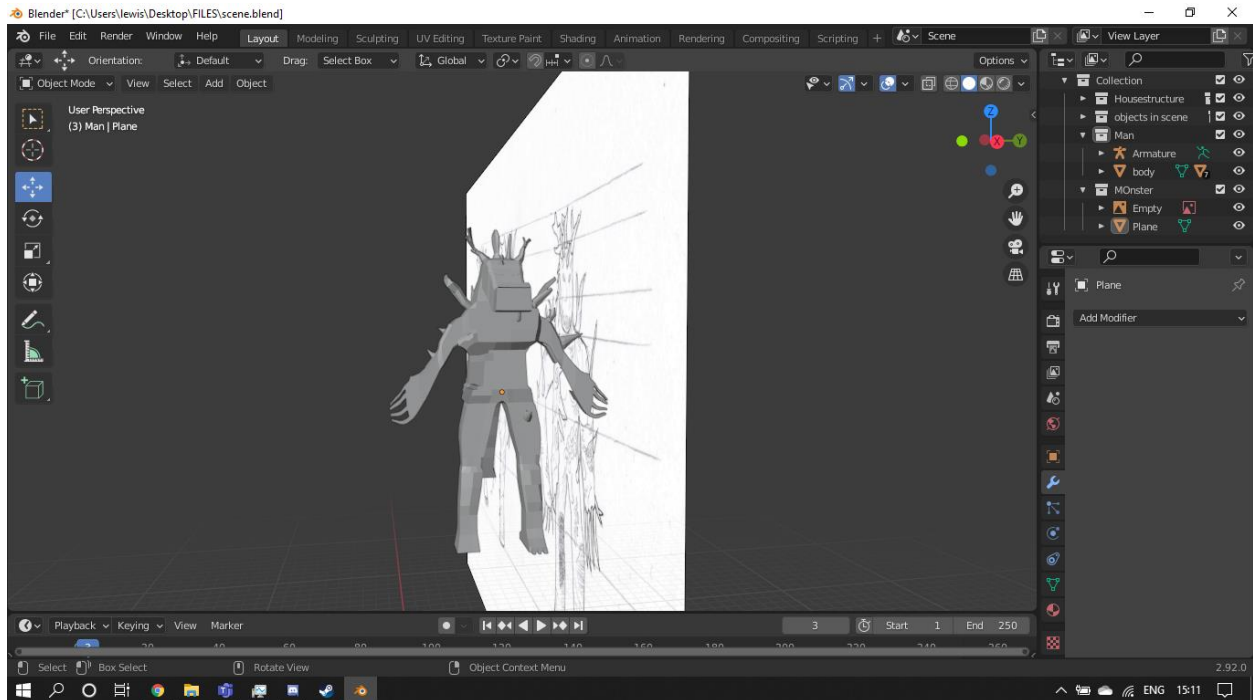
Here is the model I produced all textured it is quite uncanny and somewhat freaky but it does look distinct.



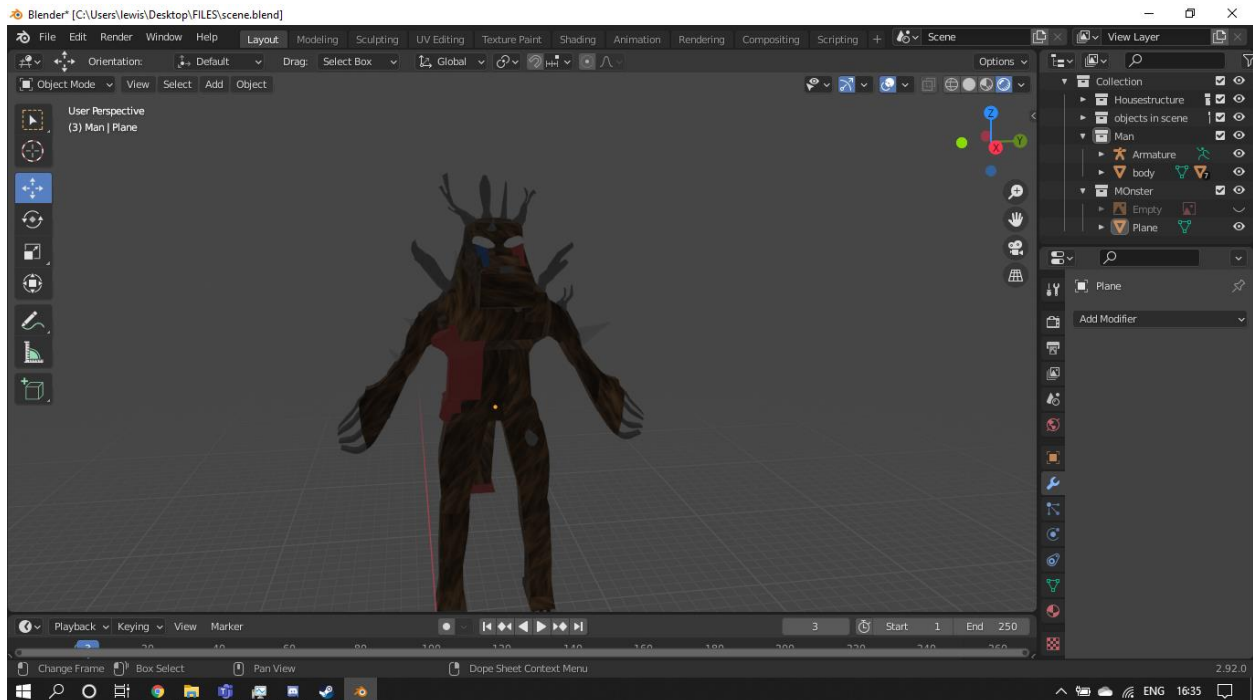
Now for the monster it is quite similar to the man but some things were a bit different. For starters I decided to not parent faces on the model so as to not suffer from the armature not working. And secondly the design of the monster in concept art has distinct things on its body (horns, growths etc.) So, I had to consider that I did what I did for the player copy the outline and mirrored it.



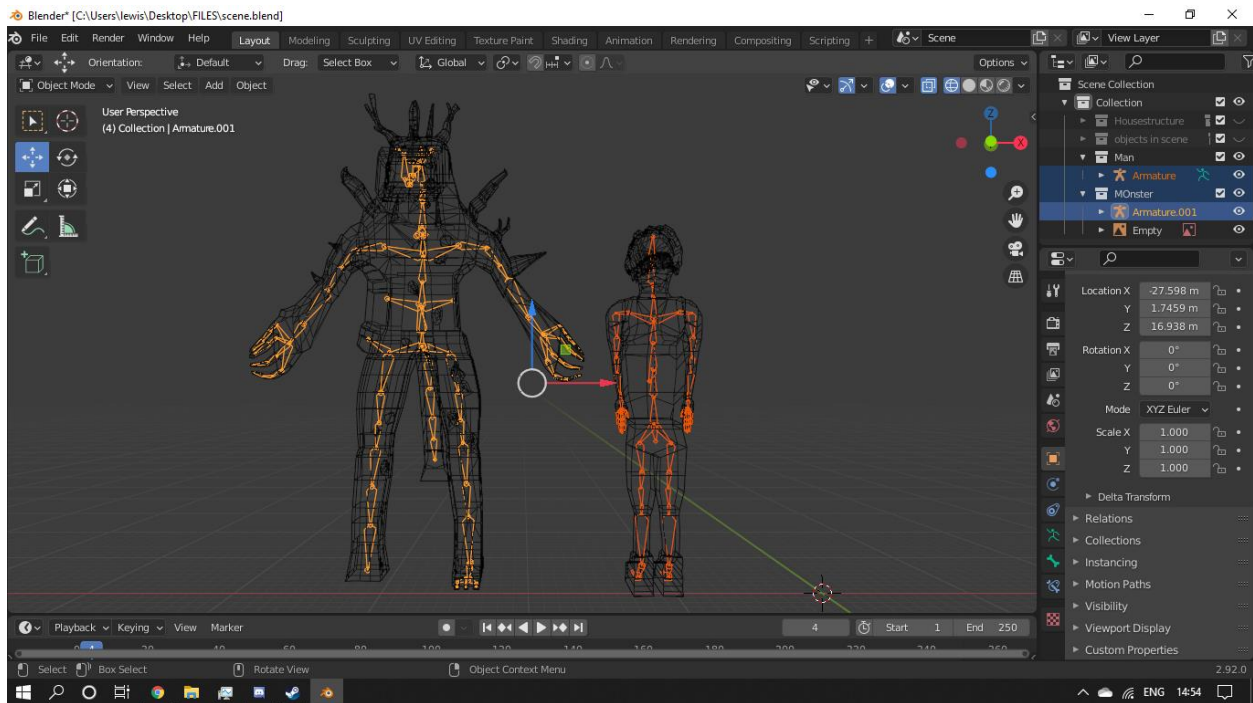
Here I added more depth and a physique to the model When I was comfortable with the overall body, I applied the mirror fixed up any errors and then started adding extras to the model such as horns, spikes and the hoof for one foot and a 'normal' foot.



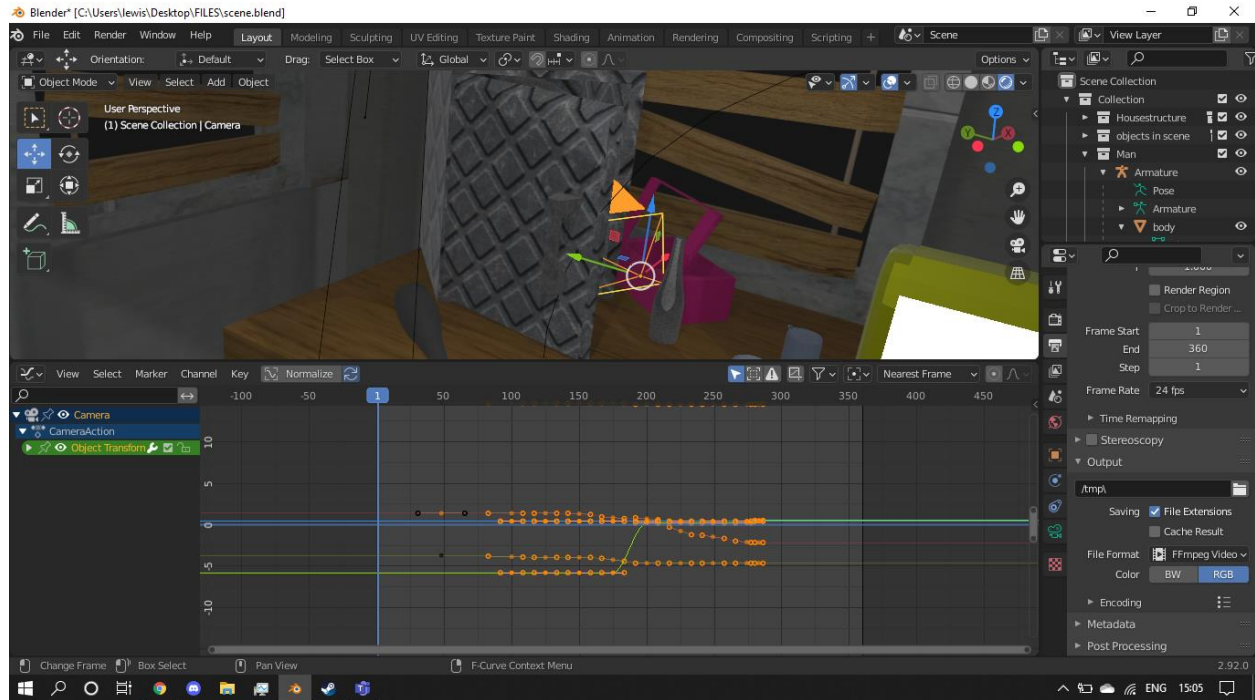
Here we see the textures applied to the monster like the man's model I made one big texture map and then using uv editing put the faces on the areas where their textures are so everything looks okay.



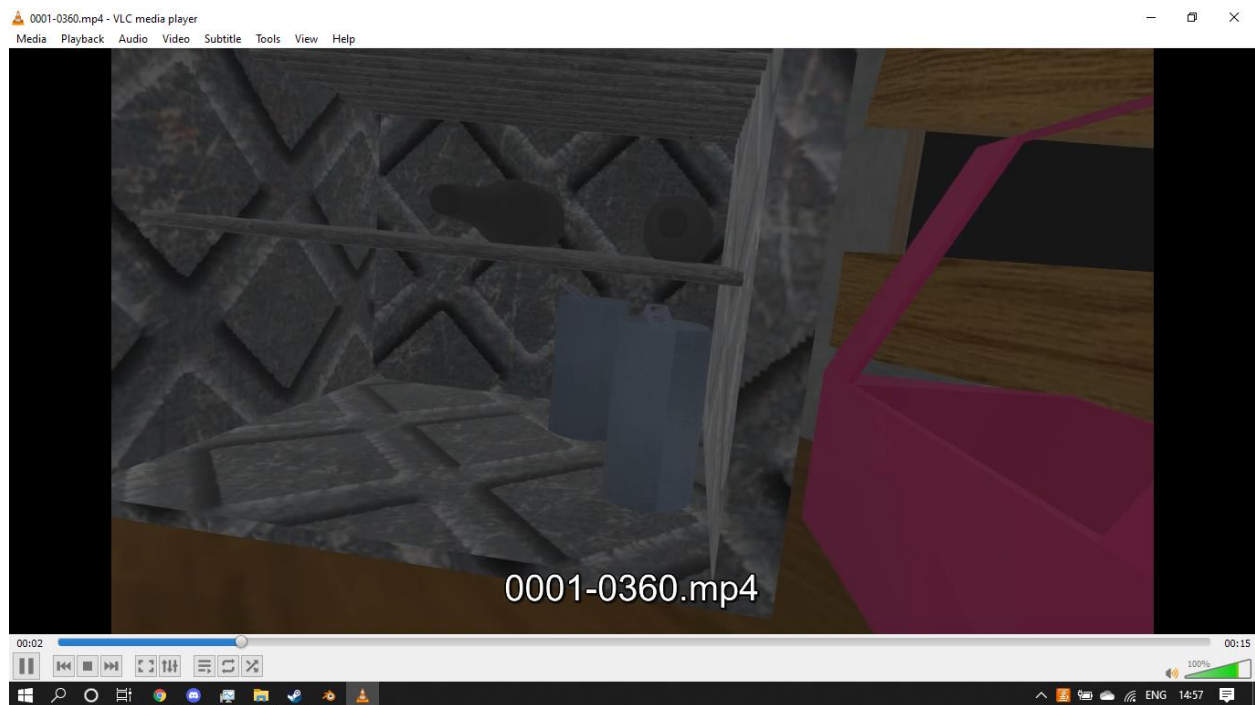
Below is a picture of the armature of both of the character models I've made sure to add bones wherever possible to help in animation. An issue that came up was that faces and vertices would not respond to the bones moving so I had to go and delete and readd them so as to make them follow the armature. This resulted in some of the faces have less than stellar texturing but I did not want to restart the texturing process to fix this (especially on the monster model with all the faces for the horns and spikes)



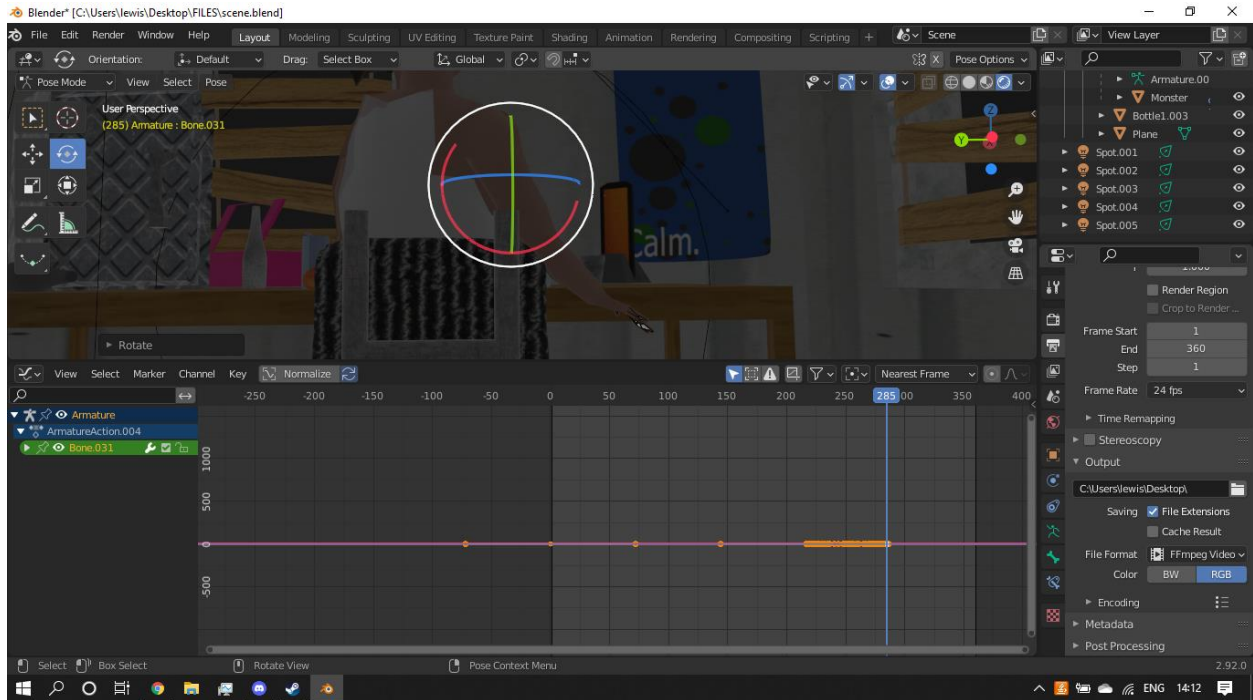
After finishing up the models I then inserted them into the scene and below you can see me start to animate my scene so I started with the camera moving in the scene using the graph editor to see how the camera is transformed over time. Then I repeated this for everything else in the animation such as the characters, objects and lighting in the scene to make a fully animated scene but at this point it is quite a rough early version.



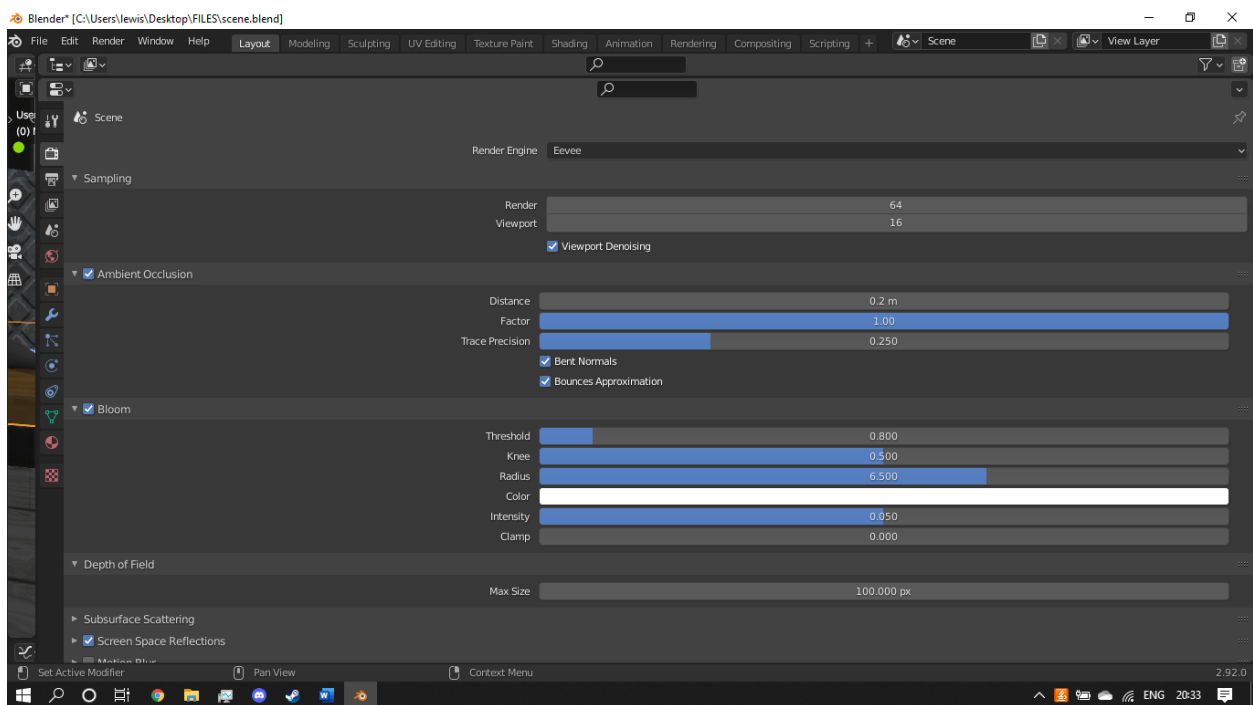
Next, I rendered the animation to see how it looked unrendered and generally looking out for animation errors or opportunities to try and smooth out the animation.



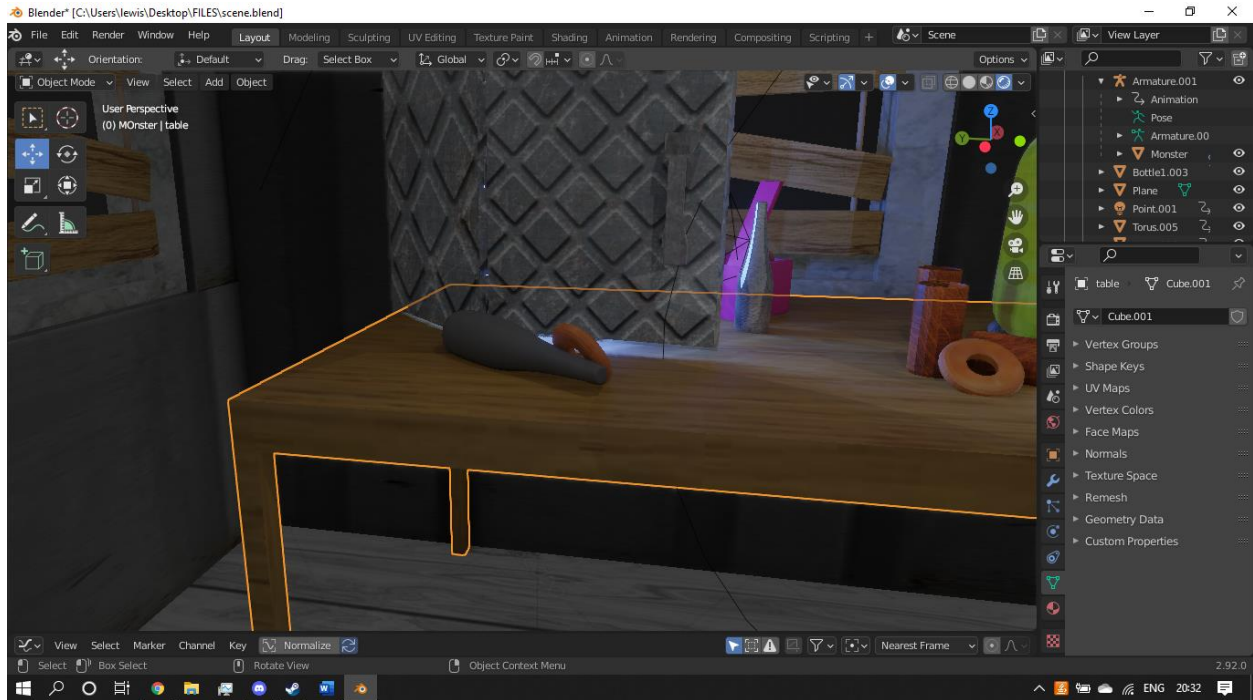
Next with any errors I could see collected and noted I went to work fixing the animation errors by going to the point in the animation where it happens to fix said error. Below you can see me fix an error where the man's arm clipped into the chair by moving it slightly the camera does not see anything I also fixed other animation errors wherever they came up.



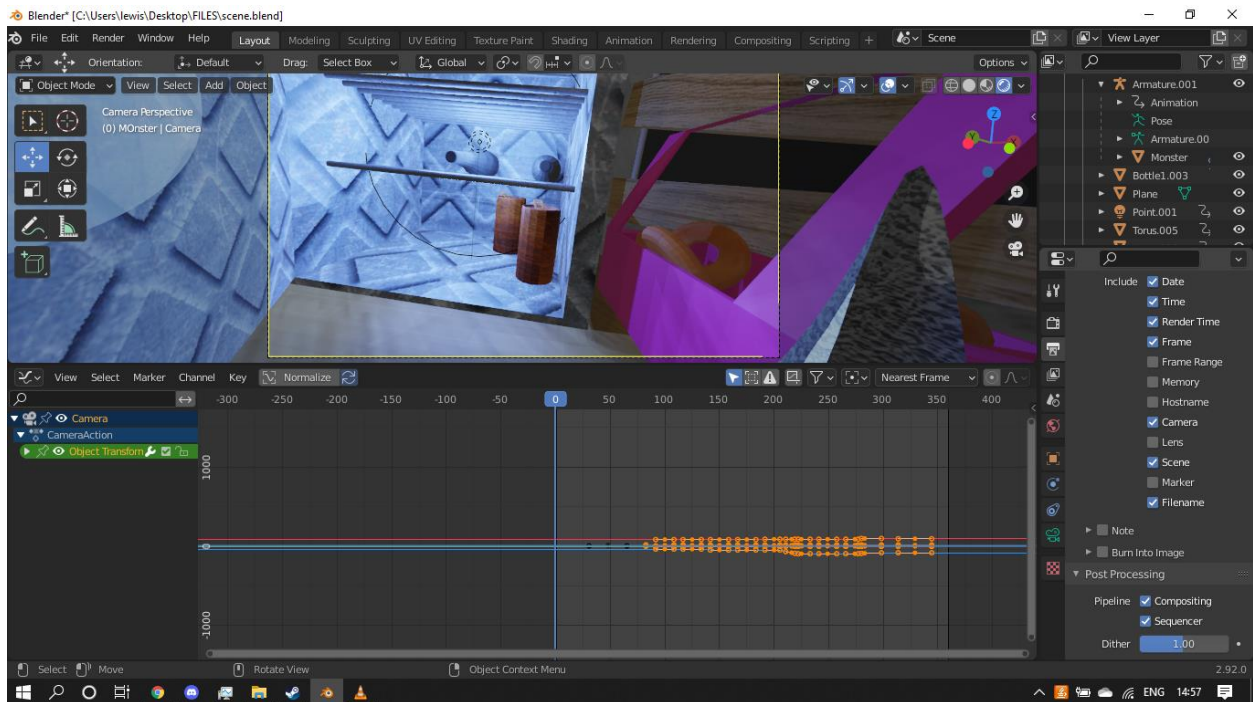
Here you can see some of the rendering settings for the 3d scene it gives a brighter glow to lights and generally looks good.



Here is the scene properly rendered with the lights and shadows very well defined and it creates a very moody look to the scene.



Here we can see the rendered scene through the lens of the camera as the animation is being rendered.



Evaluation

One thing that went well is the animation process it went quite smoothly with little difficulty or issues and I was able to animate and render the scene very quickly adding on to that the rendering was quite

easy as most of the rendering settings were quite easy to implement and because of effective utilization of said rendering settings the video looks quite nice.

The third thing that went well is the texturing of the models, the textures I used were effective as they were mostly designed to be seamless, so the texture just repeats over, and this means that when rendered the texture looks smooth and good looking and is very professional.

A final thing that I felt went well is the general quality of the models in the scene and the characters as well. This is due to me following my concept art as close as possible then I made sure that the faces are as efficient as possible (I did this by merging faces to improve the performance the model's impact will cause on the scene) and then texturing the models effectively and for the characters also rigging them very well.

The first thing that could be improved is the animation, which in my finished animation I feel is quite clunky and janky and is not smooth to my standards. This is due to two reasons the first reason I feel that the animation is rushed in terms of my animation it is 15 seconds in total, but I feel that most of the animation happens in the last 5 or so seconds so it is just a flash of animation while the first half is quite slow. Secondly is a lack of smoothness from a lack of keyframes many of the frames are in-between frames and this ends up with the animations being awkward and strange.

A second thing that could be improved is lighting of the scene. Although some of the lights are dynamic and looks very nice when rendered other lights, I feel are lacking this is down to the coloring of said lights as they are a neutral white light while the lights that look good are those that are tinted like the light in the fridge or the television.

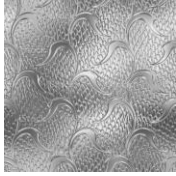
Another thing that could be improved is the texturing. Most textures especially for the characters are well done but for some such as the bottles they don't look good or what I was going for I.e., a see-through bottle but I was unable to do this. In future I might try to find textures that allow this or experiment with creating my own somewhat transparent textures which can allow a see-through bottle.

I have learned several things while developing this 3d animation the first is of allocating time effectively by separating and dividing what you need to do into sections allowed me to produce content well enough. Secondly, I am under skilled when it comes to animating 3d models I have produced this is due to a lack of experience and then an overconfidence in my abilities. And finally rendering an animation is very important as it makes the animation look very nice, but it takes a long time to render so it is quite important to allocate said time to render it and make sure that your confident in everything in the scene before rendering it as you won't be able to change it until the rendering is done.

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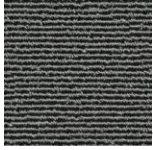
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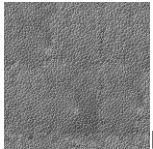
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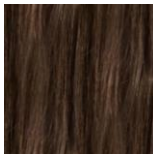
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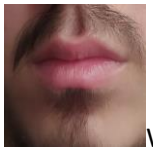
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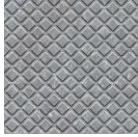
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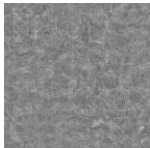
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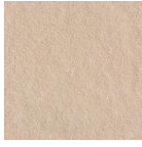
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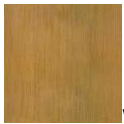
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