University of Petroleum and Energy Studies

School of Computer Science

Department of Cybernetics

Graphics & Animation Tools

LAB FILE

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Course: B. Tech with Specialization in Open Source and Open Standards

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Submitted To: -

Dr. Durgansh Sharma Assistant Professor
Department of Cybernetics

Submitted By:-
Udit Krishna Chaudhary
Roll No: R100217097
SAP Id: 500062348

Experiment - 7 Design of 3D Rocket using Blender

In this experiment we need to create a 3D Car of our choice with the help of blender.

Step-1 Clear your default interface of blender which includes deletion of cube.

Step-2 Go to the mesh and select the image option and set a picture of the car as the background image in blender.

Step-3 Go to mesh and select a cube and cut this cube in half and now you can use a mirror modifier to complete the other half of our car design. With the help of a mirror modifier, you can design one side of the car and another half will follow accordingly. Also do check clipping mode in mirror modifier.

Step-4 Now extrude the cube in the form of a rectangular bar which will act as a body for our car and do follow the background picture you used in step-2.

Step-5 Now give the cube the almost exact shape of the central portion of the image.

Step-6 Now go to face select mode and select the upper portion of the cube and extrude it a little bit to give it the shape of the roof of our car. And extrude from the slide to give it a little slant for a more realistic view.

Step-7 Now to design the wheels of our car, go to shapes and partitions and put them across our car body and give them a good circular shape in the form of a wheel. Select all the sides except the area consisting of wheels. Now go to the top view and extrude the whole body sidewise, which will give you a good shape of the body with space for wheels.

Step-8 Now move all the edges a little bit inwards to give a more realistic view to the car. And now move the front view of the car in the middle slightly to give it space for headlights.

Step-9 Now look at your background picture and extrude from all sides where you need to provide a great real view accordingly.

Step-10 Now go to the central portion of the wheel area and go to mesh and select a circle and go to circle setting and change it to 16 vertices and now hit R-90 and select the circle and extrude along x axis to give a real view for the thickness of the tyres.

Step-11 Hit E and scale it down to give the rims of tyre a great real view. Now press s and scale the tyres a little bit outward to give a slight bulge to it. Now

select the alternate of 16 vertices and give it a slight extrude and design for a real nice-looking view for tyres.

Step-12 Duplicate the same tyre by pressing, press L and press D to duplicate the tyre and press G and Y to move the front tyre to the back side and fix it in the centre.

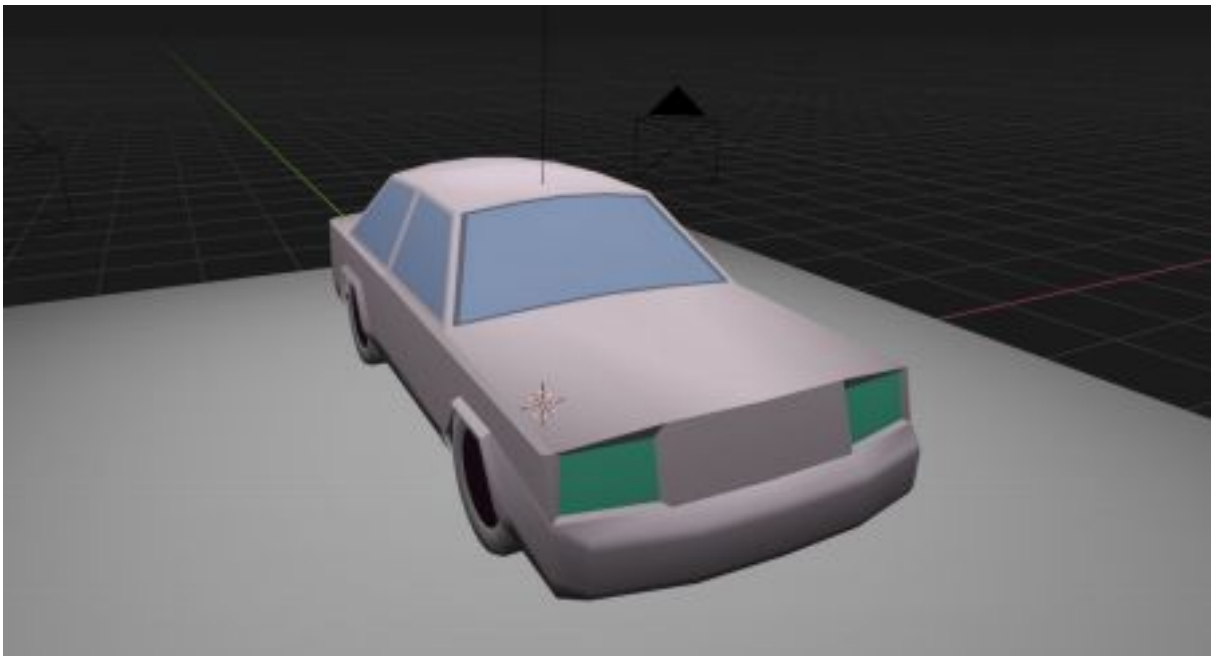
Step-13 Add rearview mirrors by extruding the surface of the car side wise and move it towards the driver and tilt it a bit down.

Step-14 Now for the colouring part, go into the edit mode again, and select the faces you want for one colour, and click the + button in the materials section

Step-15 This will apply the colour to all faces, next click on another face, click the + button, and click Assign, this will give the selected face the new material.

Step-16 Finally export your files as .blend files and also render a few images for the reference purpose.

Output



Google Drive Link

https://drive.google.com/file/d/1d-jz2v1SaMr__fwURYQGdvwo4PljAIZ5/view?usp=sharing