

Problem Statement 1 - Blender

Problem Statement

In this task, you are required to use Blender to create 3D models of Water Pitcher and Pebble piles.

You have to make five 3D models in Blender. They are specified as follows:

- 1) Pebble pile (Initial)
- 2) Pebble pile (Diminished)
- 3) Water Pitcher (Low water level)
- 4) Water Pitcher (Medium water level)
- 5) Water Pitcher (High water level)

Some example illustrations of these models are given below



Figure 1: Pebble pile (Initial)

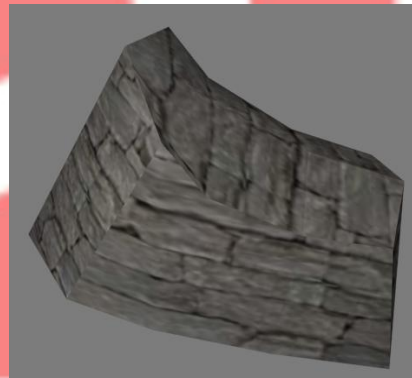
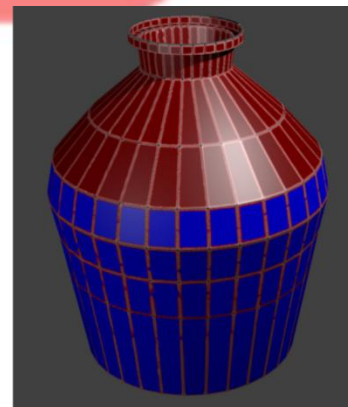
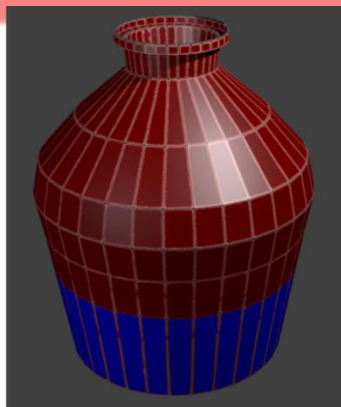
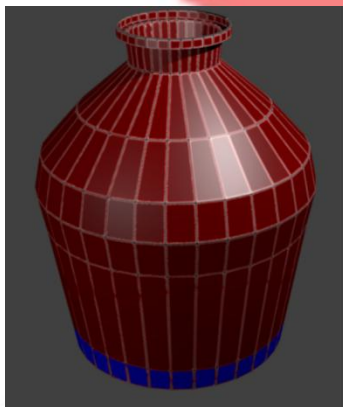


Figure 2: Pebble pile (Diminished)

Pebble pile(Initial) is the 3D model which is superimposed before Pebble Pickup(as defined in rulebook) has occurred. Pebble pile (Diminished) is the 3D model which is superimposed after Pebble Pickup has occurred.



(a) Water Pitcher (low water level) (b) Water Pitcher (medium water level)
(c) Water Pitcher (high water level)

The three Water pitcher 3D models denote three different water levels in the Pitcher. After each successful Pebble Drop, the water level increases.

The images given above are just illustrations, you are free to design Water Pitcher and Pebbles as you want in Blender. You can use your creativity in designing these models.

Resources

The following resources for Blender software will help you in creating your 3D models. Please make sure to go through each of them.

- 1) [Thirsty Crow Blender Tutorial by e-Yantra](#)
- 2) [Making a textured cube in Blender and exporting .obj file](#)
- 3) [Making terracota pots in Blender](#)
- 4) [Blender UV Mapping tutorial](#)
- 5) [Blender Texture Mapping Tutorial](#)
- 6) [Customising View Ports-I](#)
- 7) [Customising View Ports - II](#)
- 8) [Basic Transformation - Using Grab, Rotate, Scale](#)
- 9) [Camera Setup](#)
- 10) [Render Setup](#)
- 11) [Selection Types](#)
- 12) [Extrude - Part - 1](#)
- 13) [Extrude - Part - 2](#)
- 14) [Materials - Part - 1](#)
- 15) [Materials - Part - 2](#)
- 16) [Textures](#)

Submission

After you have designed all the 3D models, you are required to do the following:

- Create a new folder named “**Blender Models**”
- For each 3D model you have designed, copy the following to this folder
 - .blend file
 - .obj file
 - .mtl file
 - Texture files (in .png format) that you have created