e-Yantra Robotics Competition (eYRC 2016)
Task 1 – Model a Terrain

This task contains learning the following modules:

1. Customizing View Ports (Part - I)
2. Customizing View Ports (Part - II)
3. Basic Transformation
4. Camera Setup
5. Render Setup
6. Selection Types
7. Loop Cuts
8. Extrude (Part 1)
9. Extrude (Part 2)
10. Material (Part 1)
11. Material (Part 2)
12. Texture
13. Knife and Subdivision Tool

Follow the instructions given in individual video and practice all these in your Blender software.

1. **Customizing View Ports (Part - I):** covers adding new objects and customizing view ports as per requirement.
   Video URL: https://www.youtube.com/watch?v=W45bwQIy23w

2. **Customizing View Ports (Part - II):**
   This video tutorial is a continuation to the previous video lecture. It covers joining and maximizing windows, creating different view types.
   Video URL: https://www.youtube.com/watch?v=YaoNeXs-mGQ

3. **Basic Transformation:**
   One of the interesting things in any animation software is manipulating objects: how to move the objects - grab, rotate or scale. This session covers how to do all these transformations in Blender using keyboard shortcuts and manipulator buttons given on interface.
   Video URL: https://www.youtube.com/watch?v=YsoRKA9d2gc

4. **Camera Setup:** covers how to setup camera and to change camera positions for different angles.
   Video URL: https://www.youtube.com/watch?v=VylXMHlHQas

5. **Render Setup:** covers how to render the output of what we create in Blender and how the render view is dependent on the camera position. It also covers how to save image file of rendered object.
   Video URL: https://www.youtube.com/watch?v=_cy95jL4u4c

6. **Selection Types:**
   In this session, you will learn about two important modes of interacting with 3D objects in Blender – Object mode and Edit mode; also how to edit or modify objects.
   Video URL: https://www.youtube.com/watch?v=k9bD7n8vDuM

7. **Loop Cuts:** covers object modification using loop cuts method, types of loop cuts and how to visualize a loop cut.
   Video URL: https://www.youtube.com/watch?v=CUAxsoG7SuU

8. **Extrude:** covers object modification using extrude method on how to extrude the faces, vertices or edges of an object.
   Video URL1: https://www.youtube.com/watch?v=YHJti-GV4Tw
   Video URL2: https://www.youtube.com/watch?v=WmbyXD4vudk

9. **Material:** covers how to add material, diffuse shaders, assign transparency, choose colour and add mirror effect to an object.
   Video URL1: https://www.youtube.com/watch?v=6EBTy7SCU3M
   Video URL2: https://www.youtube.com/watch?v=v1nfIylbUQk

10. **Texture:** covers texture mapping method to add details to surfaces, by projecting images and patterns onto those surfaces.
    Video URL: https://www.youtube.com/watch?v=OuyJ1kM5BaU

11. **Knife and Subdivision:** covers how to make different shapes out of a mesh and divide a mesh into equal parts.
    Video URL: https://youtu.be/1WrZOoajvgY

NOTE:
- **All downloadable files mentioned in the video tutorial are available in the folder containing this file.**
- **Ignore the assignments and quizzes mentioned in the video tutorial.**