



## Three js Assignment

1. Create a 2d scene in 3JS in which:
  - a) There is a ground (plane) which faces the camera.
    - i. It will be of white color.
    - ii. There will be grid lines on it. (do not use a static image).
  - b) Create a “n-sided” polygon by placing the vertices using the mouse.
    - i. Move the mouse to a location and then click the left mouse button to create a vertex.
    - ii. After creating the desired number of vertices, there will be a complete button at the bottom to complete the creation.
    - iii. After completion a polygon with a different color than the ground is created with respective vertices.
    - iv. There will be edge lines for that polygon with distinct color.
    - v. You can follow the color code as shown in the images below.
  - c) There will be Copy Button at the bottom of screen
    - i. This will create the replica of the polygon you just created.
    - ii. The replica will then move with the cursor.
    - iii. When you click the left mouse button the replica will be placed just below the cursor and now it will not move with the cursor.
    - iv. This can be done any number of times.
    - v. If earlier there was no polygon created, then nothing would happen.
  - d) There will be a reset button at the bottom to delete all the polygons and the user can start creating the polygon again.
  - e) Usage of different classes is preferred. You will be judged on your OPPS skills and how you structure your entire project.
    - i. A separate class for polygon. When copied, a new object is created for that class.
  - f) Preferred: the project is to be created only using vanilla js, html, css and three.js library
  - g) The project can also be created on Unity, Unreal 3D, D3, canvas or any other 3d library.
  - h) Images guiding the creation of the polygon:-





