WEEK 3

REPORT ON WEEK 3

PRANITHA KEERTHI
01719717

- In this week assignment, I made use of three.js to implement the transformation of objects based on camera, views and light sources.

- There are two types of camera views in three.js,
    1. **Perspective View:** It's the way that we perceive things in real world where objects get smaller as they get further away.
    2. **Orthographic View:** Unlike perspective view this has no perspective, the results is an isometric view meaning that all the lines along the z-axis of the cube will be drawn parallel.

- There are five types of lights in three.js,
    1. **Ambient Light:** It's a special type of light that doesn't has any position in the scene but just sort of floods the whole scene with a consistent lighting.
    2. **Point Light:** This is a light that radiates from a single point. Unlike ambient light position matters in Point Light.
    3. **Directional Light:** It can be thought as sunlight, a powerful source that comes from a single direction. It needs a direction to be aimed so a target is defined towards which the light will radiate.
    4. **Spot Light:** It's like a normal spot light which radiates light in a cone fashion, it's similar to directional light but less strong and consistent.
    5. **Hemisphere Light:** It's like an ambient light but in ambient light there is no actual position but applies to the whole scene, here it takes two colors, one for light falling from the top and another for reflection at the bottom. This can sometimes provide more realistic results than the consistent ambient light.

- This assignment also made me familiar with a vital function of three.js, the CameraHelper and LightHelper which is implemented for the debugging of camera views and light sources respectively.

- This assignment helped me in gaining knowledge on how we can modify our web page with different camera and light views.

- This assignment will be further developed so that different projections of objects can be developed.