**Final Project Design and Reflection**

**Justify Development Choices for Your 3D Scene**

For my 3D scene, I chose food related objects like a tomato, bread, a chicken leg, and a sandwich because they are interesting and allowed me to use different shapes and textures. These object uses basic 3D shapes like spheres, cone, box, tapered cylinder and cylinders which made it easy to build. These objects also allowed me to play with materials and textures to make them look more real like giving the bread a rough texture and the tomato a smoother one. I also set up lights in a way that highlights the objects and gives the scene depth without making the shadows too harsh.

**Explain How a User Can Navigate Your 3D Scene**

The user can move around the 3D scene by using both the keyboard and mouse. The W, A, S, and D keys let you move the camera left, right, forward, or backward, just like in a video game. It also uses Q and E keys which let you move up and down. Furthermore, it uses P and O keys which set Perspective or Orthographic views. You can also use the mouse to look around by clicking and dragging. If you want to slow down the movement, you can use the scroll mouse wheel for preciseness. This setup was designed to makes it easy and smooth for users to explore the scene and see the objects from different angles and distances.

**Explain the Custom Functions in Your Program That You Are Using to Make Your Code More Modular and Organized**

I created several custom functions to keep my code organized and easy to update. The SetTransformations() function helps apply scale, rotation, and position changes to any object, so I can reuse it for different objects without repeating code. The SetShaderTexture() function handles applying textures to objects by using simple tags which makes it easier to manage textures. The SetupSceneLights() function takes care of setting up all the lights in the scene, so I can control the lighting from one place without complicating the rest of the code. Lastly, LoadSceneTextures() loads all the textures into memory which keeps everything organized and makes it easier to add or change textures of each shape.