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CS-330 Project Review

I’ve chosen the following image for my review for this project.



* **Explain which 3D shapes could be used to re-create the selected 2D image**.

This image is a great example of the different types of shapes used to render a 3D scene. Each of the following shapes could be used in rendering this scene:

* + Cube
    - The Keyboard, Monitor, books and Cup Holder could be displayed as modified, stretched cubes. The mouse could also be rendered as a cube with rounded edges.
  + Cylinder
    - The cup, as well as each of the pencils in the holder, could be rendered as a cylinder.
  + Plane
    - The Desk could be displayed as a plane.
  + Pyramid
    - Depending on how you wanted to render the scene, the cup could be rendered as an inverted pyramid with its tip removed.
  + Torus
    - The cup’s handle could be rendered as a torus.
* **Identify at least one object that would need multiple shapes to re-create it**. Consider the spoon in the example involving kitchen items and how two shapes were used to portray the object (a sphere and a cube). When observing the image you are working with, where might that strategy be necessary to form a more accurate re-creation?
  + The cup in this scene is a great candidate for a multi-shape object. The cup itself is a cylinder or inverted pyramid as mentioned above, and its handle is a torus.
  + Another example of a multi-shape object is the pencil holder. The holder itself is a cube with rounded edges, and the pencils are long cylinders with pyramids at the end for the pencil tip.
* **Discuss areas where the image could be simplified in a 3D re-creation**. For example, what objects would you omit? Are there objects you would combine using a single shape?
  + The mouse in this image poses an interesting problem. Due to its unique shape, it may need to be simplified to a rounded cube, or combination of shapes.
  + The Keyboard and Desk may be combinable into a single plane, although I would likely create the keyboard as a flat cube.