Mechanical Subsystem Task 2

Task 2 involves making strakes on a boat hull. Strakes are ridges on the hull of a boat, which help with stability, lift, and handling. They are typically added as extrusions along the hull surface.

To get started on the task, we could load a boat hull model from GrabCAD or something similar or create it. Then, we need to decide on the location of the strakes which usually run parallel to the hull bottom.

Then we can start sketching the strake by first selecting the plane or surface where we want the strakes. Following this, we would use the Sketch tool to draw a profile of the strake (usually a small triangular or trapezoidal shape).

Then use the Extrude Boss/Base tool to give the strake its shape. If the hull is a solid body, extrude outward from the sketch.

Then we use the Move/Copy or Pattern tool to replicate the strakes along the hull at even intervals. If needed, use Mate or Constraints to align them properly. Mirroring can help if you want symmetrical strakes on both sides of the hull.  
To smooth out transitions, apply a Fillet to the edges.

We can consider using a Loft or Sweep instead of an extrude if the strakes need to follow the curvature of the hull.