

Object Oriented Design

Ms. Lam is teaching her son about the different shapes. She will start with circle, square, rectangle, and triangle. She will create these shapes in different sizes and then tell her son the area and perimeter of each. Furthermore, she wants to show her son which ones are has the largest and smallest perimeter and area among their own shape and among all shapes.

Design a Java application that helps Ms. Lam to keep track of all the shapes, calculate their perimeter and area, and find out the maximum and minimum size.

Draw the UML diagram that represents your design. List some possible extensions for this problem, what changes is needed in your design to accommodate the extension.