Section and Exercise numbers labeled “Nguyen” refer to the pre-publication manuscript, *Design Patterns for Data Structures*, Dung X. Nguyen and J. Stanley Warford, available with the materials for downloading.

Program submissions that do not compile are marked automatically as half credit.

1. Study Nguyen, Chapter 1.

2. Do Nguyen, Exercises 1–1, 1–2, and 1–3. Modifications are required for the following files:

   - ShapeMain.cpp
   - Circle.cpp
   - Line.cpp
   - MysteryShape.hpp
   - MysteryShape.cpp
   - NullShape.cpp
   - Rectangle.cpp
   - RightTriangle.cpp

   The display method of the mystery shape must describe thoroughly what the shape is as well as its dimensions. Do not display just “mystery shape” for its description. Don’t forget to document your programs with your name, the date, etc.

   Hand in the eight files electronically per the instructions for your course.