Exercise 7

1. Suggest one or more levels of abstract base classes for the shape hierarchy discussed during the lecture. The first level is Shape and the second level consists of the classes TwoDimensionalShape and ThreeDimensionalShape. Implement suggested by you hierarchy, do not implement member function, defined classes only.
2. Develop a basic semi-graphic package. Use Shape class inheritance hierarchy defined in point 1. Limit yourself to two-dimensional shapes such as squares, rectangles, triangles and circles. Interact with the user. Let user specify the position, size and shape. Use virtual functions. Demonstrate how defined by you classes can be used.