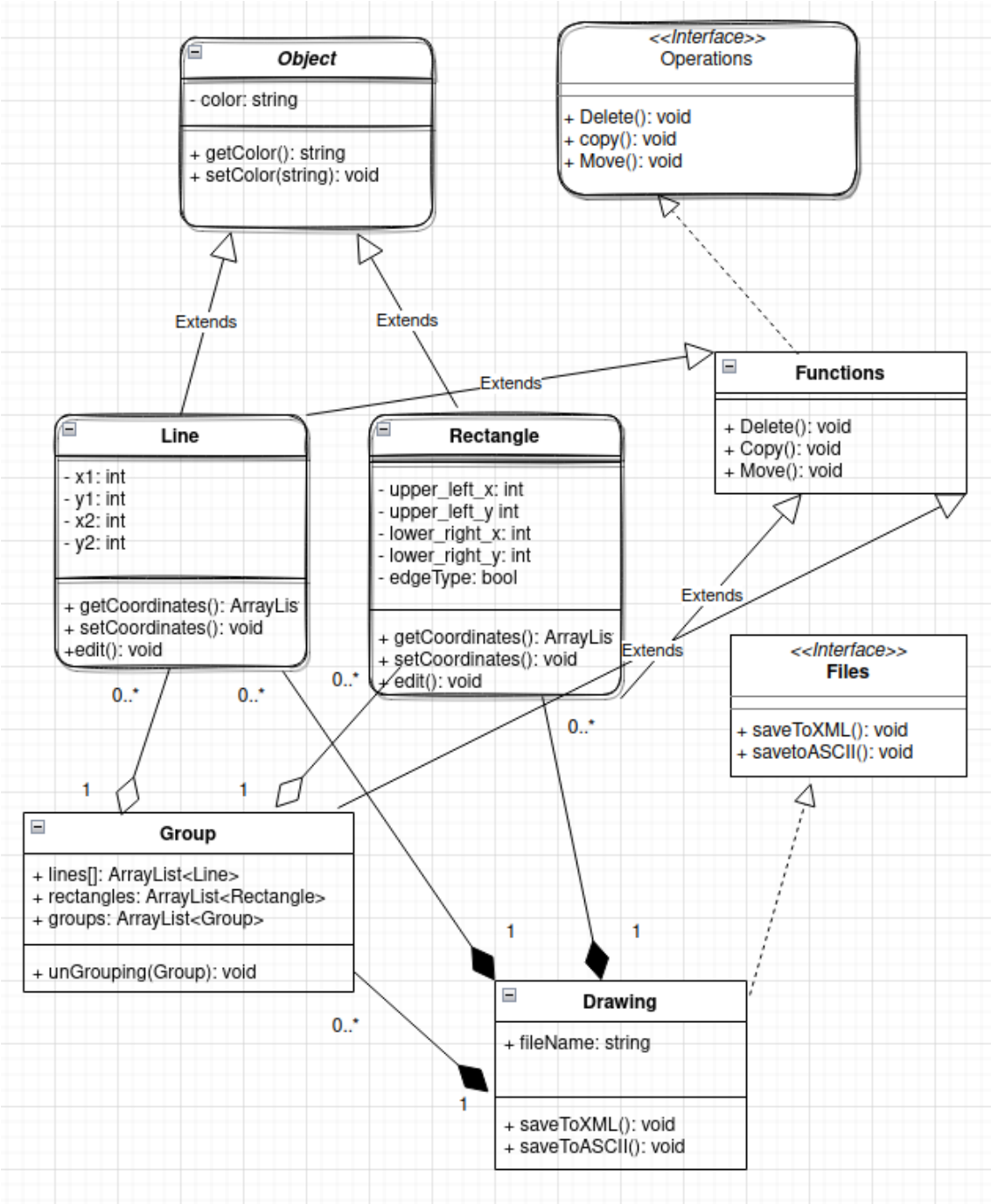
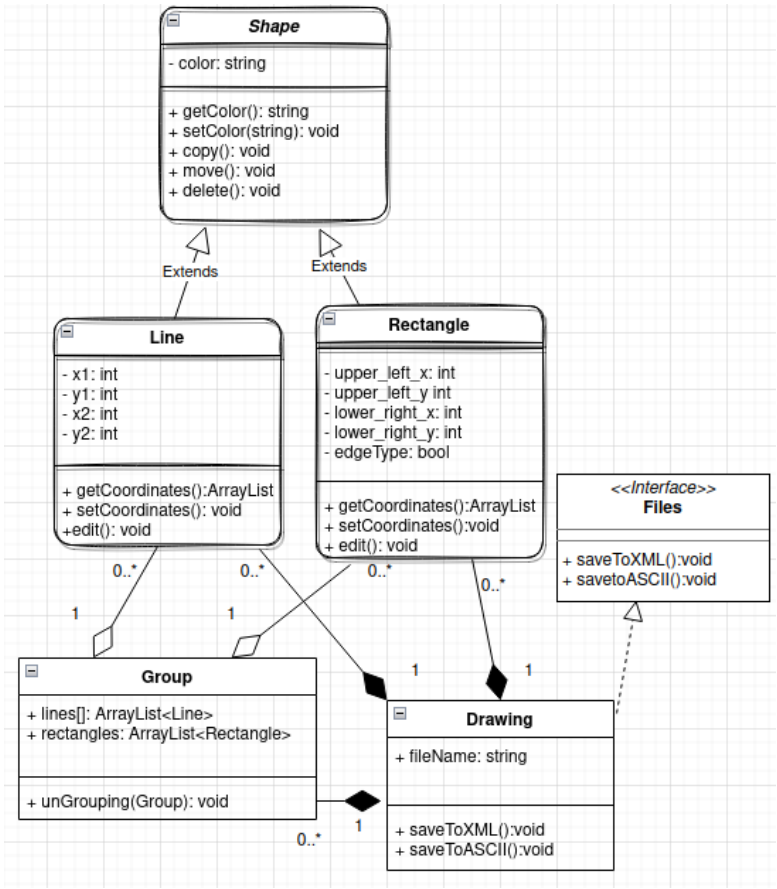
Design Activity - Drawing Editor

Name: Husen Kagdi
RollNo: 2021201077
Batch: PG1-CSE



Draft 1

This is draft2 and is an improvisation of the above class diagram.



Description of Classes and Interfaces:

1) **Shape**: It is an abstract class. It contains the common property of all classes namely color. In the improvisation, we can add methods, copy, move, delete in this class.
2) **Line:** It inherits shape and Functions classes. It contains endpoints of the line segment as attributes and implements an edit method of its own. Other than that it has getter and setter methods.
3) **Rectangle:** It inherits shape and Functions classes. It contains endpoints of the line segment and edgeType as attributes and implements an edit method of its own. Other than that it has getter and setter methods.
4) **Group:** It is having a has-a relationship with the Line, Rectangle, and inherits Function class. The group can be composed of zero or more rectangles.
5) **Drawing:** It is composed of Line, Rectangle, and Group classes. It has two methods namely, saveToXML() which saves the file to XML, and saveToASCII() which saves the file to text. A drawing has one or more lines, rectangles and groups.
6) **Function:** It implements the operations interface. It implements delete(), copy() and move() methods.
1) **Operations:** It has the definition of the methods namely delete, copy and move.
2) **Files:** It has the definition of the methods namely saveToASCII() and saves to XML() methods. Both of them provide an abstraction layer.