Course: Principals of Software Development – ENSF 409
Lab 4
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Exercise A

Colour

+ colour : String

Point

- colour : Colour
- xCoordinate : Double
- yCoordinate : Double

+ distance(other : Point) : Double
~$ distance(that : Point, other : Point) : Double

0..*

1   + has_a   1

1   + has_a

1

1

1

Shape

origin : Point
name : Text

 # area() : Double
 # perimeter() : Double
 # volume() : Double
distance(other : Shape) : Double
distance(a : Shape, b : Shape) : Double
move(dx : Double, dy : Double)

Text

- text : String

1   1

+ has_a

extends

Circle

- radius : Double

+ area() : Double
+ perimeter() : Double
+ volume() : Double

0..*

Rectangle

width : Double
length : Double

area() : Double
perimeter() : Double
volume() : Double

extends

Prism

- height : Double

+ area() : Double
+ perimeter() : Double
+ volume() : Double

0..*   uses

Geometry

- shapes : TreeSet <Shape>

uses

0..*   uses

1

1

1

1

1

0..*

uses

uses

1