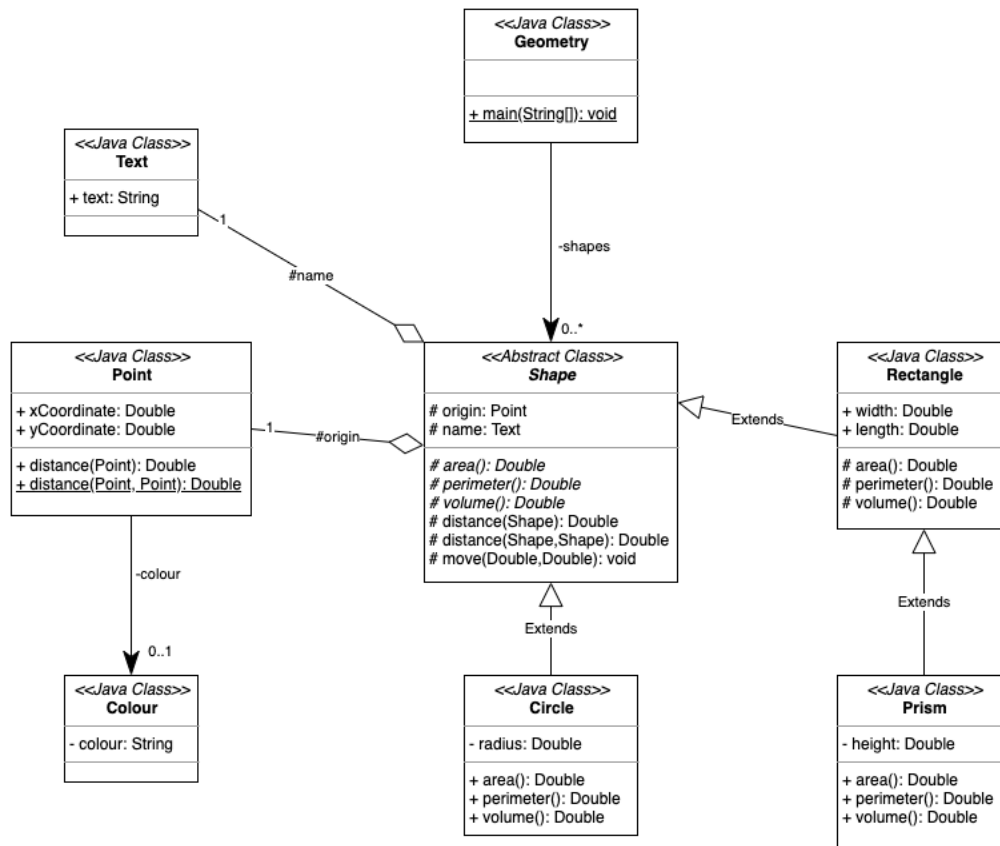**Course:** ENSF 607 – Fall 2020

Lab#: 04

Student Name: Nathan Jack

Due Date: October 22nd, 2020

Exercise 1:

<<Java Class>>
Geometry

+ main(String[]): void

<<Java Class>>
Text

+ text: String

-shapes

#name

0..*

<<Java Class>>
Point

+ xCoordinate: Double
+ yCoordinate: Double

+ distance(Point): Double
+ distance(Point, Point): Double

1   #origin

<<Abstract Class>>
Shape

origin: Point
name: Text

area(): Double
perimeter(): Double
volume(): Double
distance(Shape): Double
distance(Shape,Shape): Double
move(Double,Double): void

<<Java Class>>
Rectangle

+ width: Double
+ length: Double

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

Extends

-colour

0..1

<<Java Class>>
Colour

- colour: String

Extends

<<Java Class>>
Circle

- radius: Double

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

Extends

<<Java Class>>
Prism

- height: Double

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

Exercise 2:
See Java Files.

Exercise 3:
See Java Files.