

Rectangle2D

- double x //x-coordinate of center of rectangle
- double y //y-coordinate of center of rectangle
- double width //width of rectangle
- double length //length of rectangle

- +double getX //gets x-coordinate
- +double getY //gets y-coordinate
- +void setX //sets x-coordinate
- +void setY //sets y-coordinate
- +double getWidth //gets width
- +double getLength //gets length
- +void setWidth //sets width
- +void setLength //sets length
- +rectangle() //creates a default rectangle
- +rectangle(double X, double Y, double w, double l) //creates a custom rectangle
- +double getArea() const //gets area of rectangle
- +double getPerimeter() const //gets perimeter of rectangle
- +bool contains(double x, double y) const //returns if a point is in a rectangle
- +bool contains(const Rectangle2D &r) const //returns if a rectangle is within another rectangle
- +bool overlaps(const Rectangle2D &r) const //returns if a rectangle overlaps with another rectangle