**C10E13Rectangle2D ----- UML Class Diagram**

|  |
| --- |
| **C10E13Rectangle2D** |
| -x: double  -y: double  -width: double  -height: double  -errorMessage: String  -containMessage: String  -overMessage: String |
| +C10E13Rectangle2D()  +C10E13Rectangle2D (\_x: double, \_y: double, \_width: double, \_height: double)  +getX(): double  +getY(): double  +getWidth(): double  +getHeight(): double  +getErrorMessage(): String  +getContainMessage(): String  +getOverMessage(): String  +setX(\_x: double): double  +setY(\_y: double): double  +setWidth(\_width: double)  +setHeight(\_height: double)  +isValidWidth(\_width: double): boolean  +isValidHeight(\_height: double): boolean  +toString(): String  +equals(c: Object o): boolean  +print()  +getArea(): double  +getPerimeter(): double  +contains(x1: double, y1: double): boolean  +contains(r: C10E13Rectangle2D): boolean  +overlaps(r: C10E13Rectangle2D): boolean |

|  |
| --- |
| **C11E1C12E5Geometric** |
| -color: String  -filled: Boolean  -dateCreated: Date |
| +C11E1C12E5Geometric()  +C11E1C12E5Geometric(\_color: String, \_filled: boolean)  +getColor(): String  +getFilled(): boolean  +getDate(): Date  +setColor(\_color: String)  +setFilled(\_filled: boolean)  +toString(): String |

**C11E1C12E5Triangle & C11E1C12E5Geometric ----- UML Class Diagram**

|  |
| --- |
| **C11E1C12E5Triangle** |
| -side1: double  -side2: double  -side3: double  -errorMessage: String |
| +C11E1C12E5Triangle()  +C11E1C12E5Triangle (\_side1: double, \_side2: double, \_side3: double)  +getSide1(): double  +getSide2(): double  +getSide3(): double  +getErrorMessage(): String  +setSide1(\_side1: double)  +setSide2(\_side2: double)  +setSide3(\_side3: double)  +isValidSide(\_side: double): boolean  +getArea(): double  +getPerimeter(): double  +toString(): String  +print()  +equals(o: Object): boolean |