



Note..
Run either
as an Application
or as an Applet

Note..
Students, you
implement the
gray classes.
The yellow
ones are
Swing classes.

Key..

- is-a, extends $\longrightarrow \blacktriangleright$
- is-a, implements $\longrightarrow \text{---} \blacktriangleright$
- has-a (association) $\longrightarrow \blacktriangleright$
- annotation indicates construction and/or multiplicity
- uses (dependency) $\longrightarrow \text{---} \blacktriangleright$

Face

double centerX
double centerY
double radius
double angle
Color faceColor
Color outlineColor
Color eyeColor
Color mouthColor

Face()
Face(all fields)

drawOn(Graphics2D)
translate(double x, double y)
rotate(double degrees)

-- drawCircle is an optional helper method which draws or fills a circle centered at the given position, with the given radius and color, filled if isFill is true (and drawn otherwise), onto the given Graphics2D object.

1..*

private void drawCircle(
double centerX,
double centerY,
double radius,
Color color,
boolean isFill,
Graphics2D graphics)