

CMSC 113: Computer Science I
ArrayLists in Graphics Programs

Write a compound object `DarkeningCircle` that contains a white filled-in circle centered at the compound object's hotspot. (You can choose the size.) Include a method `darken()` that makes the circle become a shade darker. It should take 255 calls to `darken()` to fully make the circle black. (Further calls to `darken()` should *not* cause a crash.)

Then, write a program. Every click should create a new `DarkeningCircle`. Each circle should darken every 5 milliseconds. Note that each circle has its own shade of gray.

Once you've gotten that working, make it so that every time you click on an existing `DarkeningCircle`, it resets to white again. (Don't just make a new `DarkeningCircle` on top of the old one.) This will require adding a new method to your compound object.