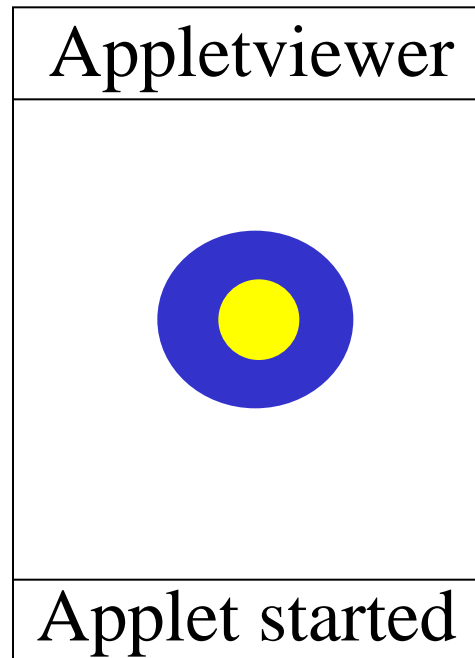# Step Into Java: Make a Class...
Mr. Neat
Java

# What if we wanted to make a target?

This is what you would do today…..

```java
import objectdraw.*;
import java.awt.*;
public class MoveTarget extends WindowController
{
        private FilledOval inner;
        private FilledOval outer;

        public void begin()
        {
                outer = new FilledOval(100,50,30,30,canvas);
                outer.setColor(Color.blue);
                inner = new FilledOval(100+15-7,50-15-7,15,15,canvas);
                inner.setColor(Color.yellow);
        }
}
```

What if you wanted 2 or ...100 Targets?

Appletviewer

Applet started
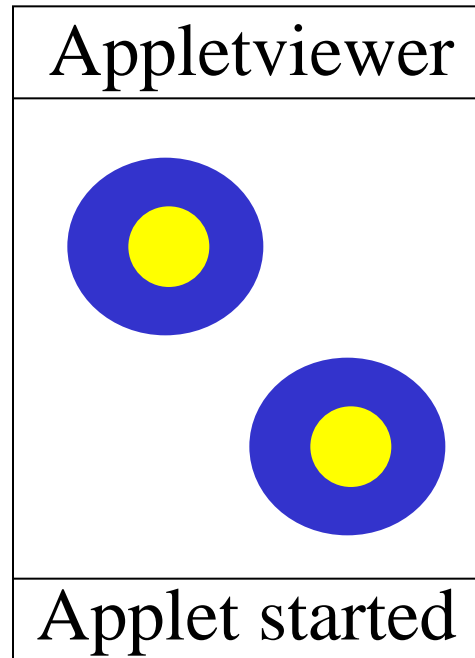
Wouldn't it be nice if?….

Target bullseye;

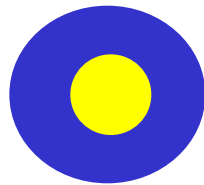bullseye = new Target(x,y,canvas);

We need to make the class Target!

Class Definition;

Three main parts,

What are they?

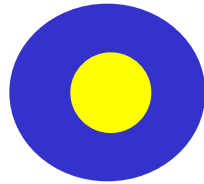Want this class to create a target that looks like this at the desired coordinates.

Class Creation

√ - fields (instance variables)

- constructors

- methods

Class Creation

- fields (instances)
- can be "seen by all class methods"

What are the fields?

What are the fields?

-outer FilledOval object
-inner FilledOval object

instance variable declarations:

private FilledOval inner;
private FilledOval outer;

Class Creation

- fields (instance variables)

√ - constructors

- methods

Constructors…...

Inside the
class TargetShow extends WindowController

want to be able to do this:

private Target joe;
joe = new Target(50,50,canvas);

How?

Constructors…...

joe = new Target(50.,50.,canvas);

---

no void   same name as class

public Target(double x, double y, DrawingCanvas nc)
{

}

"formal parameters"

Constructors…...

joe = new Target(50,50,canvas);

```
public Target(double x, double y, DrawingCanvas nc)
{
        outer = new FilledOval(x,y,50,50,nc);
        outer.setColor(Color.blue);
        inner = new FilledOval(x+15 - 7,…..);
        inner.setColor(Color.yellow);
}
```

Now in another class, you can construct a Target,…or a bunch of Targets!

new Target(50,5,canvas);

new Target(50,55,canvas);

new Target(50,110,canvas);

new Target(50,165,canvas);

new Target(50,220,canvas);

new Target(50,270,canvas);

Class Creation

- fields (instance variables)

- constructors

√ - methods

Next!

Next Lab - Make the _____

- Make a class that creates _____objects.
- Determine the fields and make a constructor.
- Constructor should take the parameters:
x, y and canvas.
- Use your class to put a _____ object
in the window when the mouse is clicked.
- Write another constructor that takes a
Location object and a canvas object