

### Class Interfaces

```
@interface Shape : NSObject
@property (assign) NSPoint center;
@property (strong) NSColor* color;
@end
```

```
@interface Rectangle : Shape
@property (assign) NSSize size;
@end
```

```
@interface Circle : Shape
@property (assign) CGFloat radius;
@end
```

### Class Implementation

```
@implementation Shape
@synthesize centre;
@synthesize color;
- (void)draw {
[color set];
}
@end
```

```
@implementation Rectangle
@synthesize size;
- (void)draw {
[super draw];
[NSBezierPath
fillRect:NSMakeRect(self.centre.x - size.width /
2, self.centre.y - size.height / 2, size.width,
size.height)];
}
@end
```

```
@implementation Circle
@synthesize radius;
- (void)draw {
[super draw];
[[NSBezierPath
bezierPathWithOvalInRect:NSMakeRect(self.centre.x - radius, self.centre.y - radius, radius2,
radius2)] fill];
}
```

### Class Implementation (cont)

```
}
@end
```

### Class Use

```
- (void)drawRect:(NSRect)rect {
rect = [self bounds];
[[NSColor cyanColor] set];
[NSBezierPath fillRect:rect];

Rectangle* rectangle = [[Rectangle alloc] init];
rectangle.size = NSMakeSize(300, 200);
rectangle.centre =
NSMakePoint(NSMidX(rect), NSMidY(rect));
rectangle.color = [NSColor whiteColor];
[rectangle draw];

Circle* circle = [[Circle alloc] init];
circle.radius = 60;
circle.centre = rectangle.centre;
circle.color = [NSColor redColor];
[circle draw];
}
```

### Result

```
http://chocolatapp.com/snaps/japanflag.png
```

