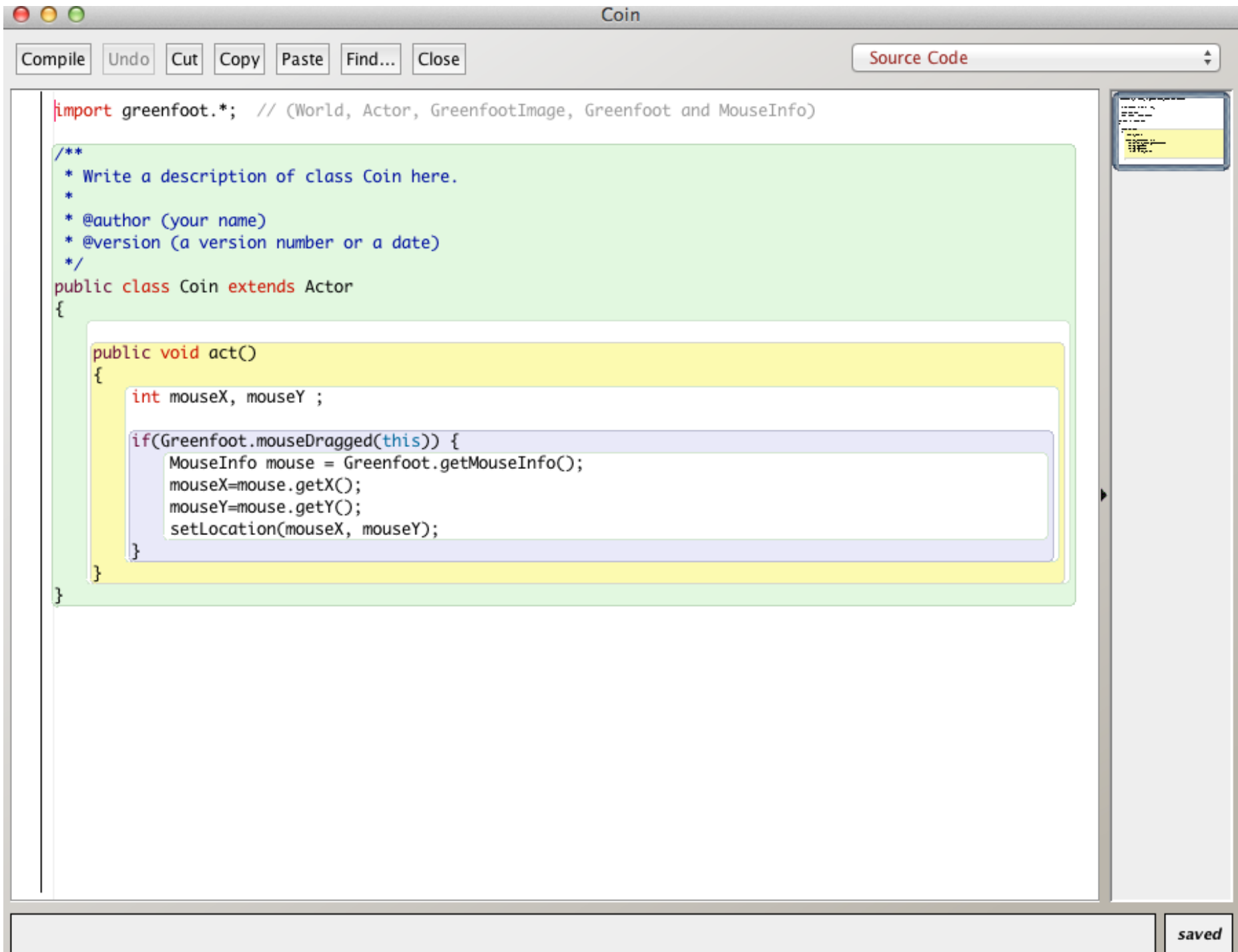


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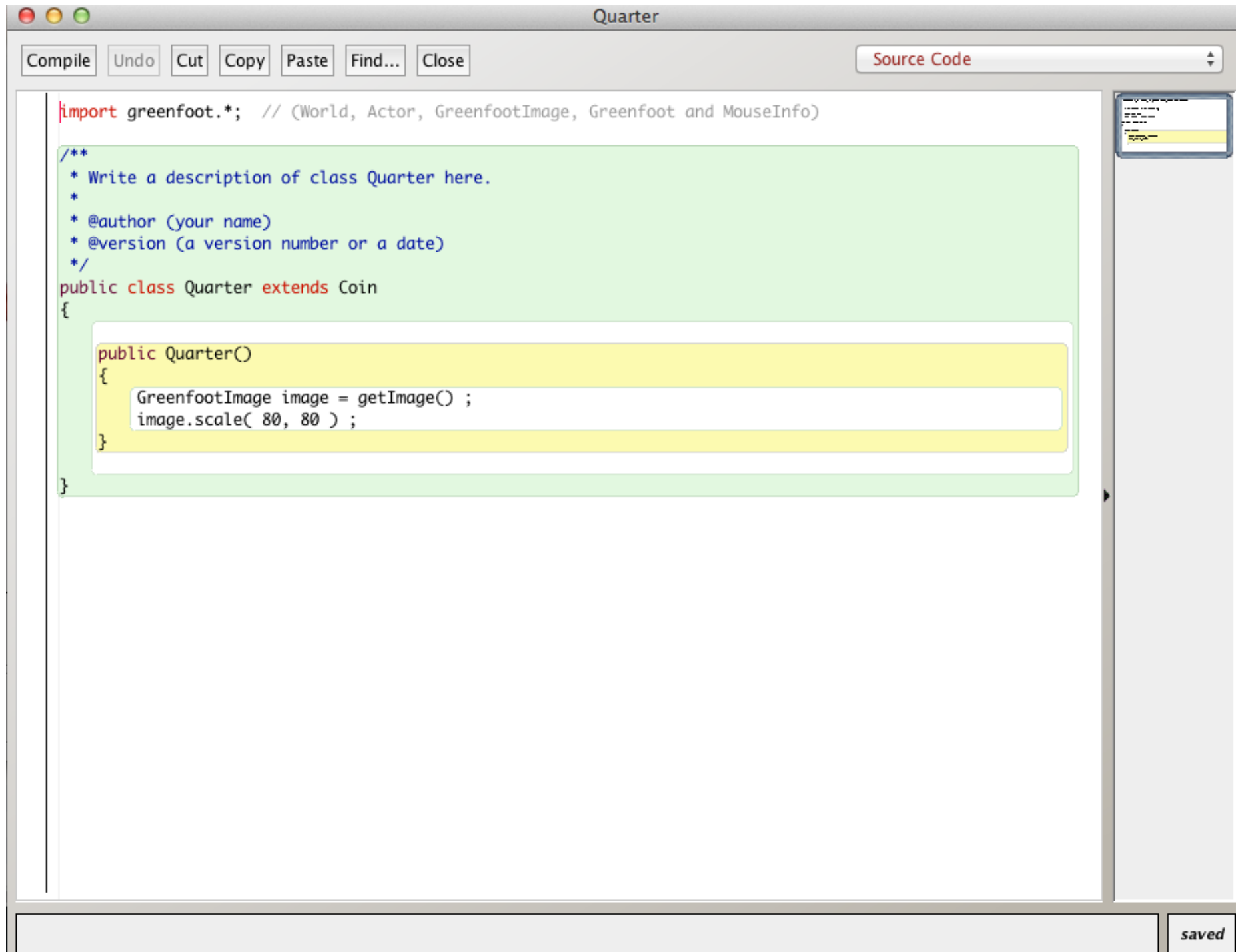
Lab Hints

Gumball Machines

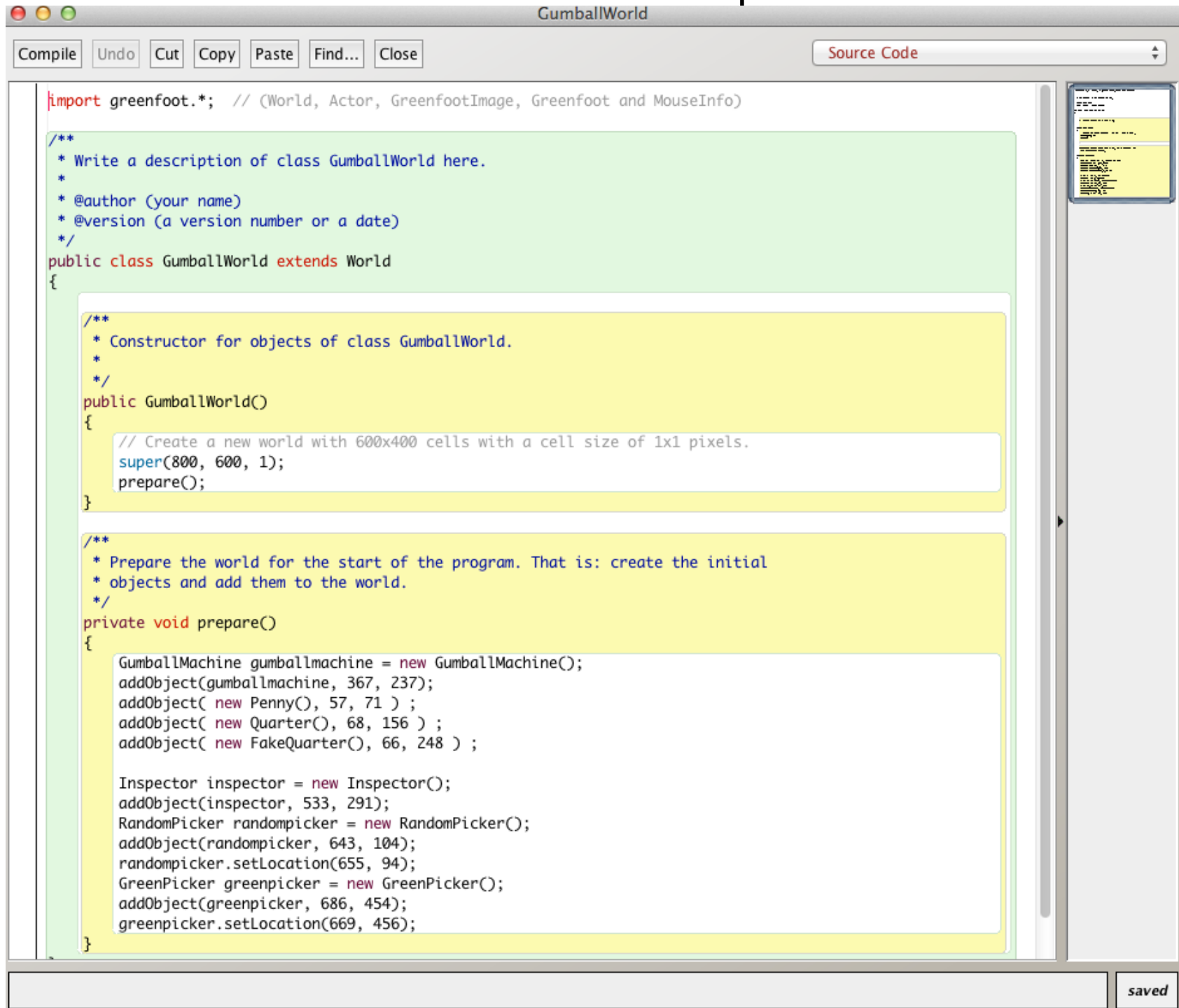
Moving Objects



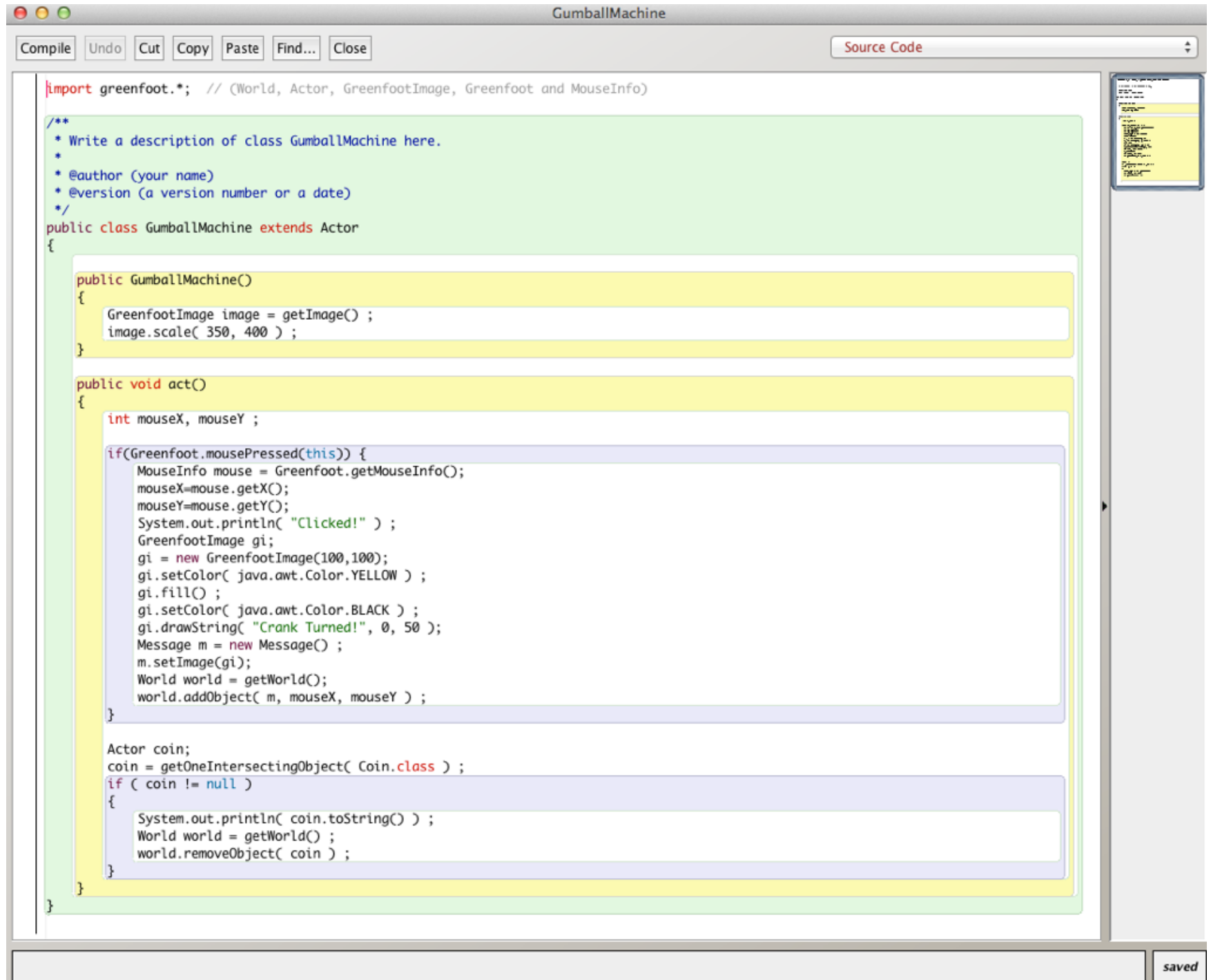
Sizing Image for Objects



World Setup



Displaying Text & Removing Objects



```
import greenfoot.*; // (World, Actor, GreenfootImage, Greenfoot and MouseInfo)

/**
 * Write a description of class GumballMachine here.
 *
 * @author (your name)
 * @version (a version number or a date)
 */
public class GumballMachine extends Actor
{
    public GumballMachine()
    {
        GreenfootImage image = getImage();
        image.scale( 350, 400 );
    }

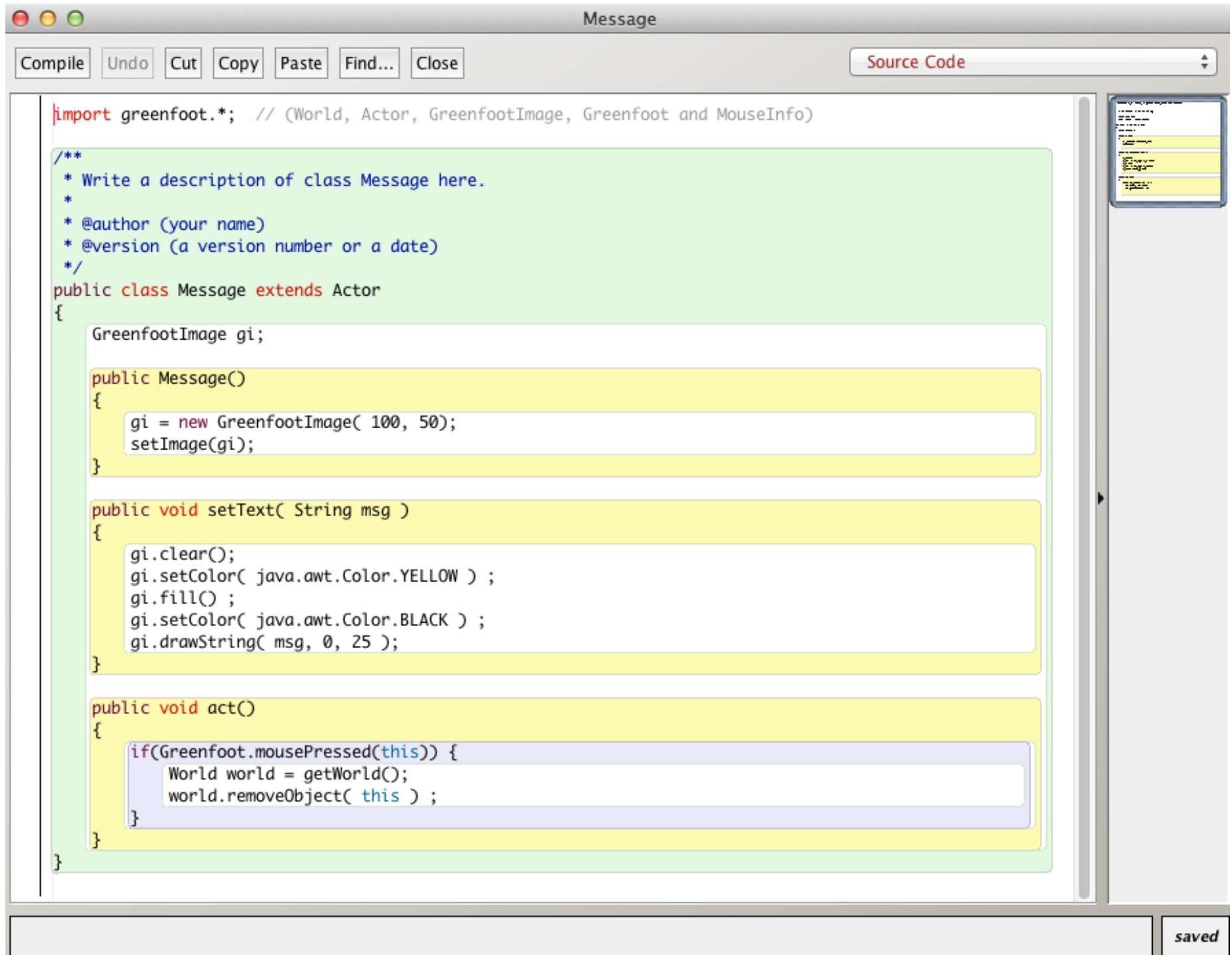
    public void act()
    {
        int mouseX, mouseY;

        if(Greenfoot.mousePressed(this)) {
            MouseInfo mouse = Greenfoot.getMouseInfo();
            mouseX=mouse.getX();
            mouseY=mouse.getY();
            System.out.println( "Clicked!" );
            GreenfootImage gi;
            gi = new GreenfootImage(100,100);
            gi.setColor( java.awt.Color.YELLOW );
            gi.fill();
            gi.setColor( java.awt.Color.BLACK );
            gi.drawString( "Crank Turned!", 0, 50 );
            Message m = new Message();
            m.setImage(gi);
            World world = getWorld();
            world.addObject( m, mouseX, mouseY );
        }

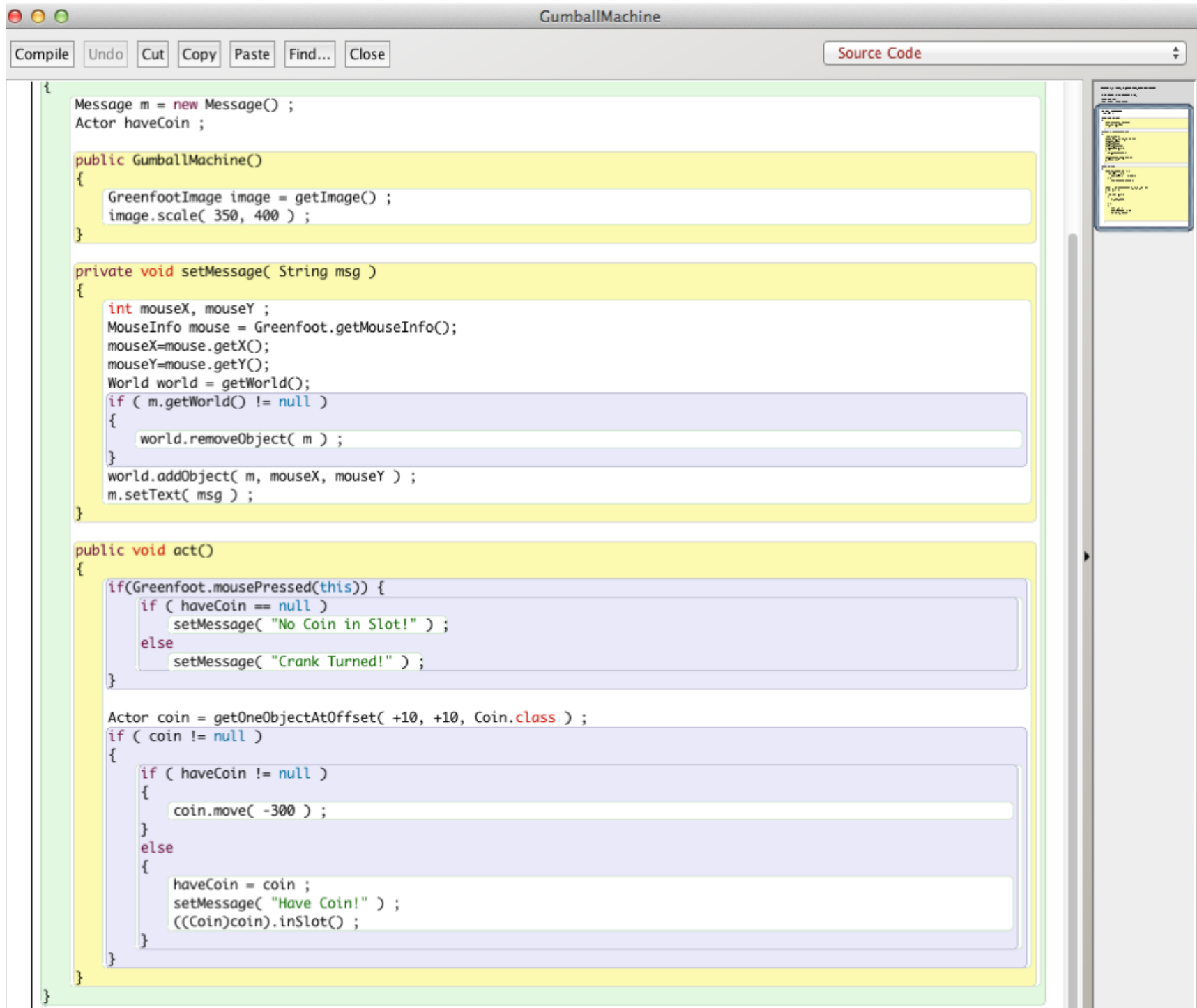
        Actor coin;
        coin = getOneIntersectingObject( Coin.class );
        if ( coin != null )
        {
            System.out.println( coin.toString() );
            World world = getWorld();
            world.removeObject( coin );
        }
    }
}
```

saved

Message Object



Reusable Message Object



The screenshot shows a Java IDE window titled "GumballMachine". The code is written in Java and is organized into several blocks highlighted with yellow and light blue backgrounds. The code defines a GumballMachine class with a Message object, a haveCoin actor, and methods for setting the message and acting.

```
{
    Message m = new Message() ;
    Actor haveCoin ;

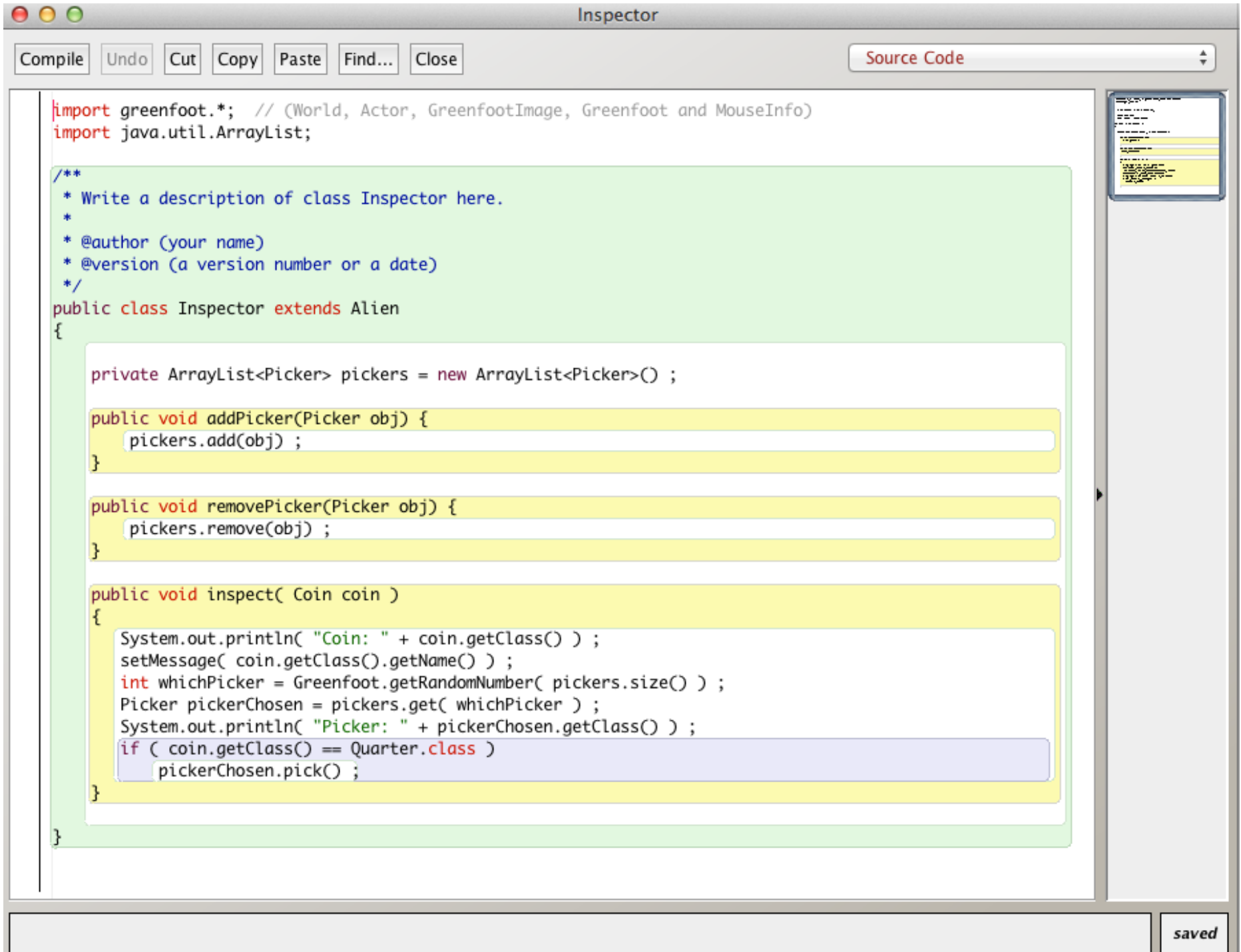
    public GumballMachine()
    {
        GreenfootImage image = getImage() ;
        image.scale( 350, 400 ) ;
    }

    private void setMessage( String msg )
    {
        int mouseX, mouseY ;
        MouseInfo mouse = Greenfoot.getMouseInfo();
        mouseX=mouse.getX();
        mouseY=mouse.getY();
        World world = getWorld();
        if ( m.getWorld() != null )
        {
            world.removeObject( m ) ;
        }
        world.addObject( m, mouseX, mouseY ) ;
        m.setText( msg ) ;
    }

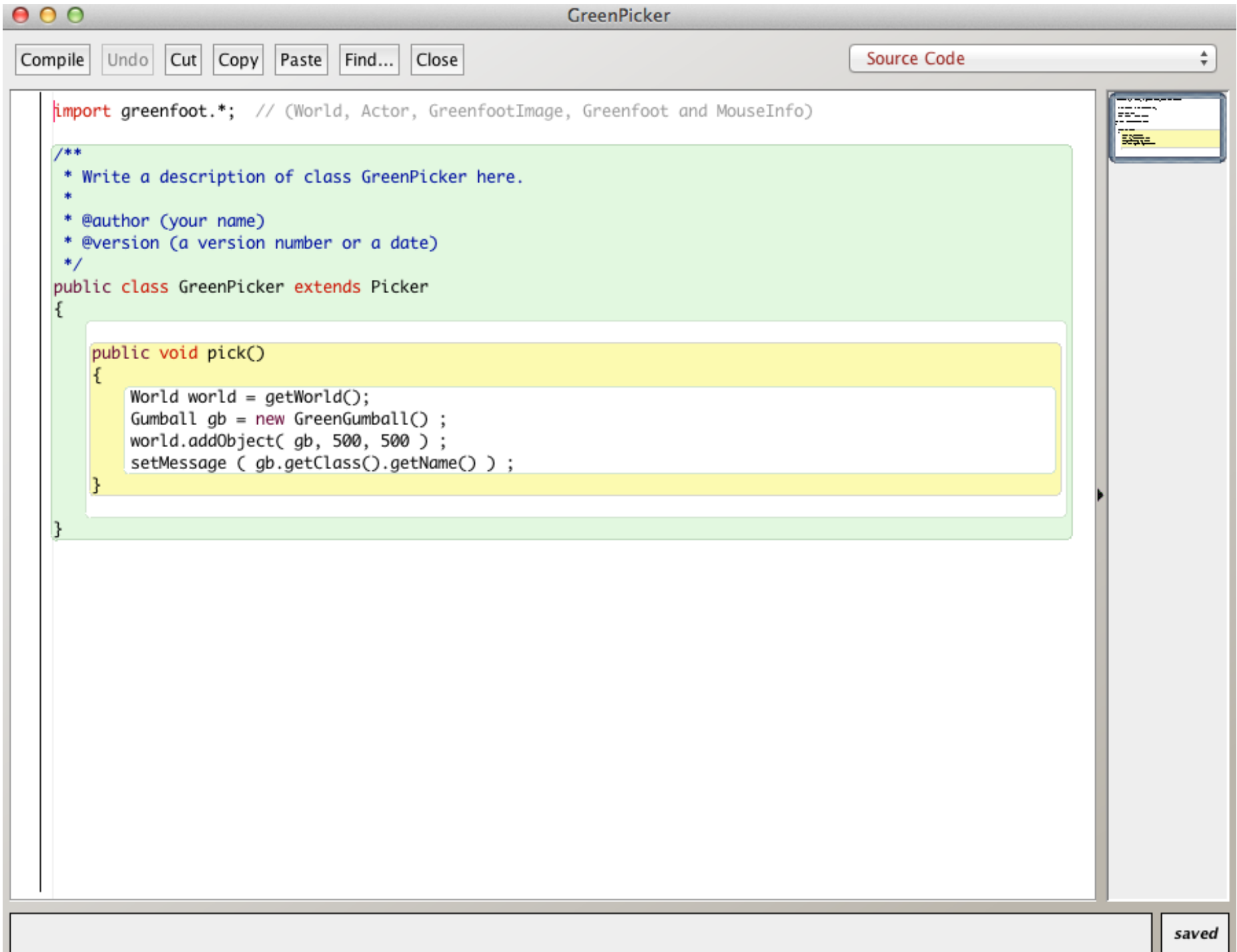
    public void act()
    {
        if(Greenfoot.mousePressed(this)) {
            if ( haveCoin == null )
                setMessage( "No Coin in Slot!" ) ;
            else
                setMessage( "Crank Turned!" ) ;
        }

        Actor coin = getOneObjectAtOffset( +10, +10, Coin.class ) ;
        if ( coin != null )
        {
            if ( haveCoin != null )
            {
                coin.move( -300 ) ;
            }
            else
            {
                haveCoin = coin ;
                setMessage( "Have Coin!" ) ;
                ((Coin)coin).inSlot() ;
            }
        }
    }
}
```

Inspector



Green Picker



Random Picker

