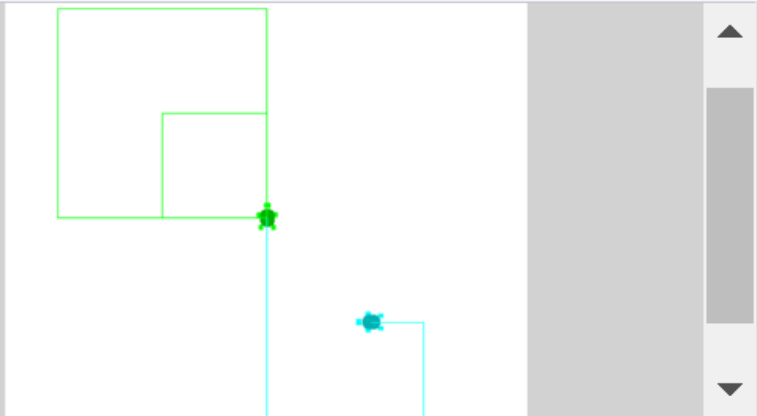Create a Turtle object and have it draw a shape, for example a small square and then a larger square (by calling the forward method multiple times).

```java
1 //Code by Akshat Garg
2 import java.awt.*;
3 import java.util.*;
4
5 public class TurtleTest
6 {
7     public static void main(String[] args)
8     {
9         World habitat = new World(500, 500);
10        // 1. Create a Turtle object in the habitat
11        Turtle squirtle = new Turtle(habitat);
12        // 2. Have the turtle draw a small square
13        squirtle.forward(100);
14        squirtle.turnLeft();
15        squirtle.forward(100);
16        squirtle.turnLeft();
17        squirtle.forward(100);
18        squirtle.turnLeft();
19        squirtle.forward(100);
20        squirtle.turnLeft();
21        // 3. Have the turtle draw a large square
22        squirtle.forward(200);
23        squirtle.turnLeft();
24        squirtle.forward(200);
25        squirtle.turnLeft();
26        squirtle.forward(200);
27        squirtle.turnLeft();
28        squirtle.forward(200);
29        squirtle.turnLeft();
30        // 4. Play around!
31        Turtle myrtle = new Turtle(habitat);
32        myrtle.backward(200);
33        myrtle.turnRight();
34        myrtle.forward(150);
35        myrtle.turnLeft();
36        myrtle.forward(100);
37        myrtle.turnLeft();
38        myrtle.forward(50);
39        habitat.show(true);
40    }
41 }
42
```


Result	Expected	Actual	Notes
Pass	1+ Turtle(s)	2 Turtle(s)	At least 1 Turtle in habitat
Pass	6+ turns	11 turns(s)	two squares (8+ right or left turns total)
Pass	8+ moves	12 move(s)	two squares (8 moves total)
Pass	38+ line(s)	40 lines(s)	More than 38 lines of code

You got 4 out of 4 correct. 100.00%

Activity: 2.1.4.1 ActiveCode (challenge2-1-TurtleDraw)

Debug the following code.

Save & Run   Download   Show CodeLens   Reformat   Pair?

```java
1  //Code by Akshat Garg
2  import java.awt.*;
3  import java.util.*;
4
5  public class TurtleConstructorDebug
6  {
7      public static void main(String[] args)
8      {
9          World w = new World(300,0);
10         Turtle t0 = new Turtle(w);
11         Turtle t1 = new Turtle(w);
12         Turtle t2 = new Turtle(100, 50, w);
13         t0.forward();
14         t1.turnRight();
15         t2.turnLeft();
16         w.show(true);
17     }
18 }
19
```

```
java.lang.IllegalArgumentException: Width (300) and height (0) cannot be <= 0
        at java.desktop/java.awt.image.DirectColorModel.createCompatibleWritableRaster(DirectColorMod
        at java.desktop/java.awt.image.BufferedImage.(BufferedImage.java:324)
        at SimplePicture.(SimplePicture.java:91)
        at Picture.(Picture.java:51)
        at World.initWorld(World.java:104)
        at World.(World.java:91)
        at TurtleConstructorDebug.main(TurtleConstructorDebug.java:8)
```

Result	Expected	Actual	Notes
Pass	true	true	Checking that code has been changed

You got 1 out of 1 correct. 100.00%

Activity: 2.2.7.1 ActiveCode (challenge2-2-TurtleConstructorDebug)

Save & Run | 7/9/2024, 8:37:26 PM - 11 of 11 | Download | Show CodeLens | Reformat ☐
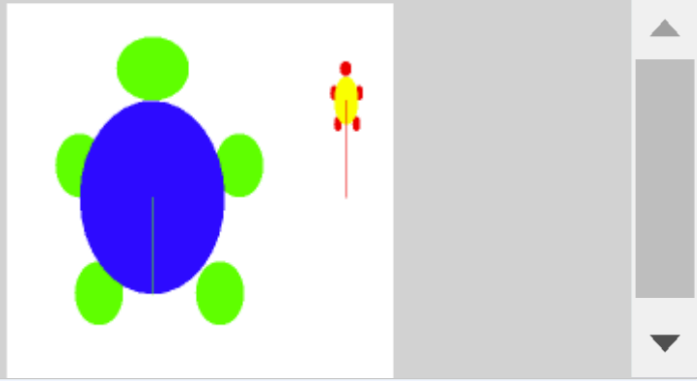
Pair?

```java
1  //Code by Akshat Garg
2  import java.awt.*;
3  import java.util.*;
4
5  public class CustomTurtleRunner
6  {
7      public static void main(String[] args)
8      {
9          World world1 = new World(400, 400);
10
11         // 1. Change the constructor call below to create a large
12         // 150x200 CustomTurtle with a green body (Color.green)
13         // and a blue shell (Color.blue) at position (150,300).
14         // Move it forward to see it.
15         CustomTurtle turtle1 = new CustomTurtle(150,300,world1,Color.green,Color.
16         turtle1.forward();
17
18         // 2. Create a small 25x50 CustomTurtle with a red body
19         // and a yellow shell at position (350,200)
20         // Move it forward to see it.
21         CustomTurtle turtle2 = new CustomTurtle(350,200,world1,Color.red,Color.ye
22         turtle2.forward();
23         // 3. Create a CustomTurtle of your own design
24         CustomTurtle turtle3 = new CustomTurtle(350,350,world1,Color.blue,Color.b
25         world1.show(true);
26     }
27  }
28
29  class CustomTurtle extends Turtle
30  {
31      private int x;
32      private int y;
33      private World w;
34      private Color bodycolor;
35      private Color shellcolor;
36      private int width;
37      private int height;
38
39      /**
40
41
```

Result	Expected	Actual	Notes
Pass	true	true	Checking that code contains constructor for a large 150x200 CustomTurtle with a green body and a blue shell at position (150,300) in world1
Pass	true	true	Checking that code contains constructor for a small 25x50 CustomTurtle with a red body and a yellow shell at position (350,200) in world1

You got 2 out of 2 correct. 100.00%

Mixed up the input parameters and some of the commands, but good Objects practice in general.