

Stage2 - Part2 Report of Coding Exercise

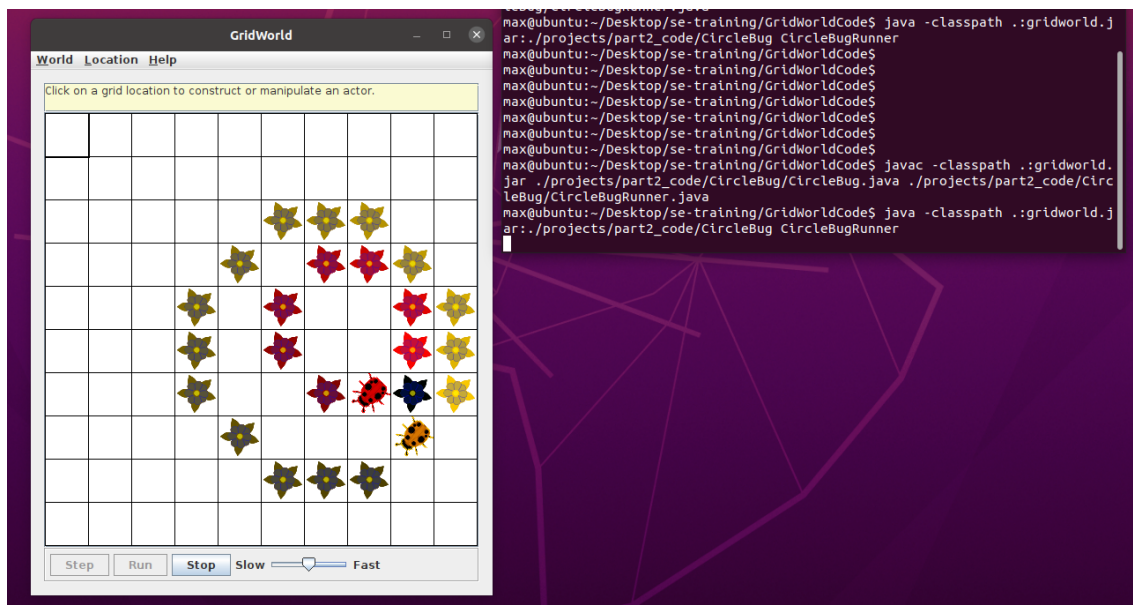
郑有为 19335286

1. CircleBug

- 命令行编译运行命令：（在GridWorldCode下执行，代码位于 /project/part2_code）

```
1 javac -classpath .:gridworld.jar
  ./projects/part2_code/CircleBug/CircleBug.java
  ./projects/part2_code/CircleBug/CircleBugRunner.java
2 java -classpath .:gridworld.jar:./projects/part2_code/CircleBug
  CircleBugRunner
```

- 运行截图：可以看到 Alice（外圈）和Bob（内圈）都绕成一个圈（准确来说是正八边形）



2. SpiralBug

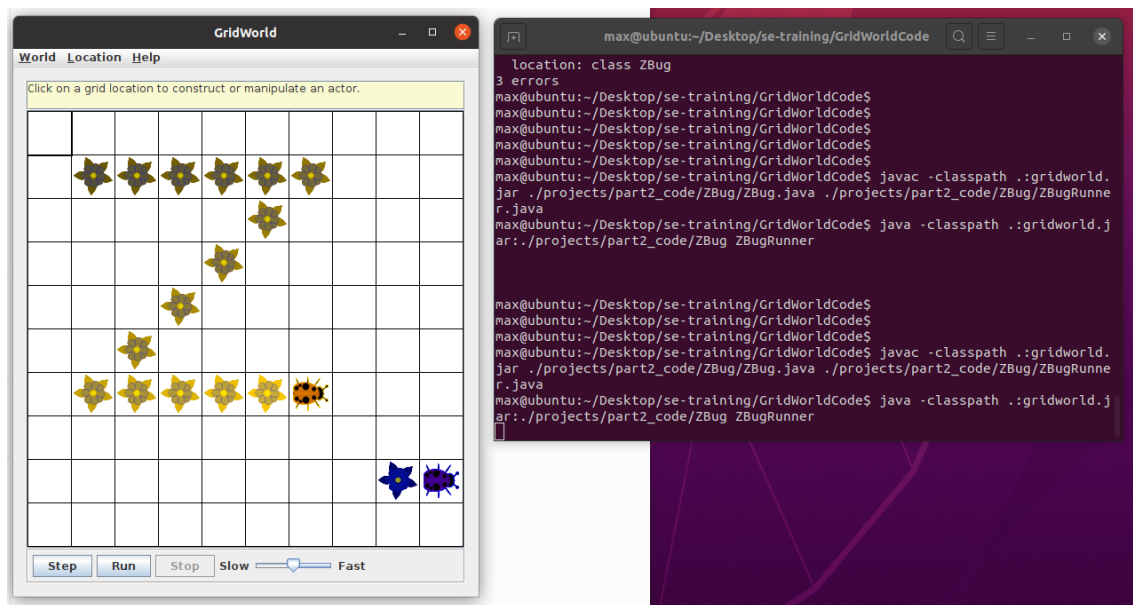
- 命令行编译运行命令：（在GridWorldCode下执行，代码位于 /project/part2_code）

```
1 javac -classpath .:gridworld.jar
  ./projects/part2_code/SpiralBug/SpiralBug.java
  ./projects/part2_code/SpiralBug/SpiralBugRunner.java
2 java -classpath .:gridworld.jar:./projects/part2_code/SpiralBug
  SpiralBugRunner
```

- 代码说明：通过以下代码生成一个没有边界的网格

```
1 // @file: SpiralBug/SpiralBugRunner.java
2 // @line: 14-15
3 Grid<Actor> grid = new UnboundedGrid<Actor>();
4 ActorWorld world = new ActorWorld(grid);
```

- 运行截图：可以看到 Alice 越绕越大。



4. DancingBug

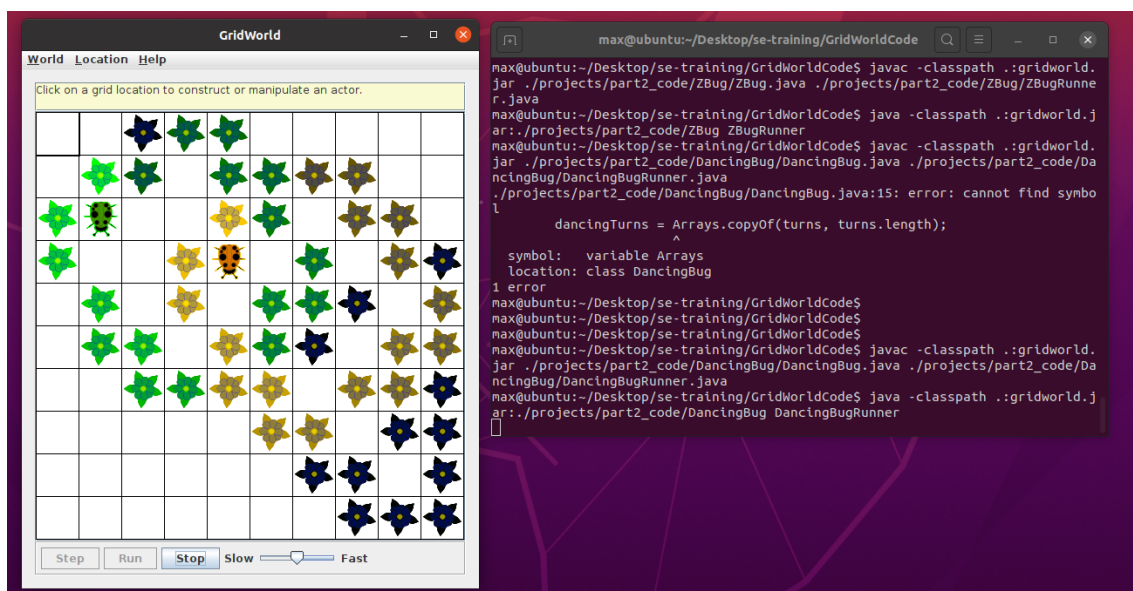
- 命令行编译运行命令：（在GridWorldCode下执行，代码位于 /project/part2_code）

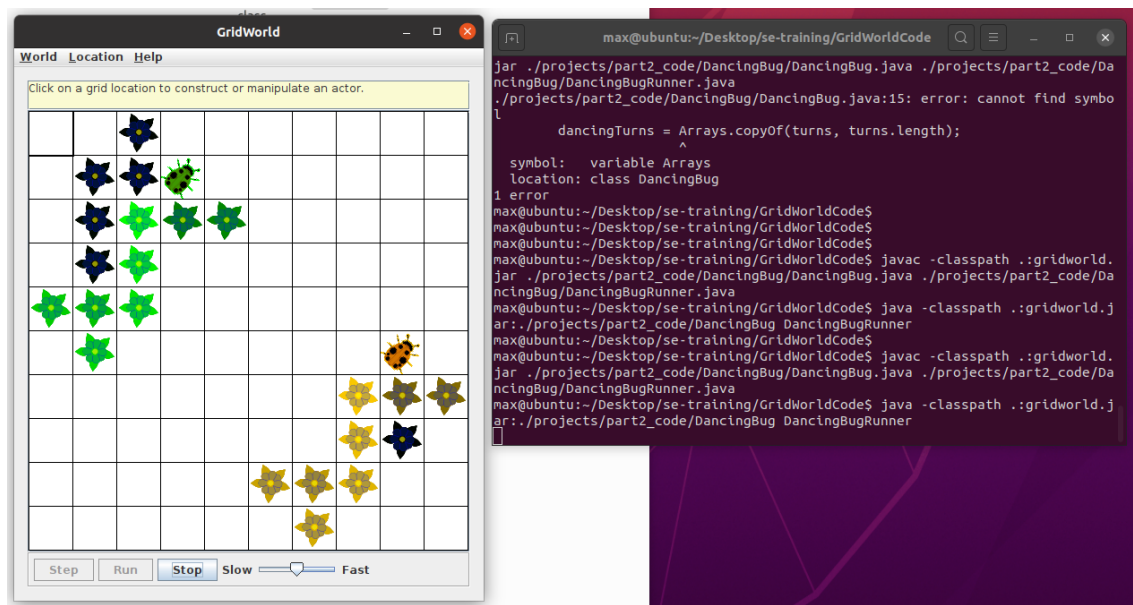
```

1 javac -classpath .:gridworld.jar
  ./projects/part2_code/DancingBug/DancingBug.java
  ./projects/part2_code/DancingBug/DancingBugRunner.java
2 java -classpath .:gridworld.jar:./projects/part2_code/DancingBug
  DancingBugRunner

```

- 运行截图：两个实例的数组分别是：{9,3,5,8,9} 和 {1,2,3,4,5,6,7,8}，产生了不同的‘舞步’。





- 上述四分代码使用 Sonar 测试结果：

<div> <div>☆ CircleBug</div> <div>Passed</div> <div>Last analysis: 16 minutes ago</div> </div>						
<div> <div>🐛 Bugs</div> <div>0</div> <div>A</div> </div>	<div> <div>🔒 Vulnerabilities</div> <div>0</div> <div>A</div> </div>	<div> <div>🔥 Hotspots Reviewed</div> <div>—</div> <div>A</div> </div>	<div> <div>💩 Code Smells</div> <div>2</div> <div>A</div> </div>	<div> <div>Coverage</div> <div>0.0%</div> <div></div> </div>	<div> <div>Duplications</div> <div>0.0%</div> <div></div> </div>	<div> <div>Lines</div> <div>40</div> <div>XS</div> <div>Java</div> </div>
<div> <div>☆ DancingBug</div> <div>Passed</div> <div>Last analysis: 14 minutes ago</div> </div>						
<div> <div>🐛 Bugs</div> <div>0</div> <div>A</div> </div>	<div> <div>🔒 Vulnerabilities</div> <div>0</div> <div>A</div> </div>	<div> <div>🔥 Hotspots Reviewed</div> <div>—</div> <div>A</div> </div>	<div> <div>💩 Code Smells</div> <div>3</div> <div>A</div> </div>	<div> <div>Coverage</div> <div>0.0%</div> <div></div> </div>	<div> <div>Duplications</div> <div>0.0%</div> <div></div> </div>	<div> <div>Lines</div> <div>44</div> <div>XS</div> <div>Java</div> </div>
<div> <div>☆ SpiralBug</div> <div>Passed</div> <div>Last analysis: 1 minute ago</div> </div>						
<div> <div>🐛 Bugs</div> <div>0</div> <div>A</div> </div>	<div> <div>🔒 Vulnerabilities</div> <div>0</div> <div>A</div> </div>	<div> <div>🔥 Hotspots Reviewed</div> <div>—</div> <div>A</div> </div>	<div> <div>💩 Code Smells</div> <div>3</div> <div>A</div> </div>	<div> <div>Coverage</div> <div>0.0%</div> <div></div> </div>	<div> <div>Duplications</div> <div>0.0%</div> <div></div> </div>	<div> <div>Lines</div> <div>41</div> <div>XS</div> <div>Java</div> </div>
<div> <div>☆ ZBug</div> <div>Passed</div> <div>Last analysis: 3 minutes ago</div> </div>						
<div> <div>🐛 Bugs</div> <div>0</div> <div>A</div> </div>	<div> <div>🔒 Vulnerabilities</div> <div>0</div> <div>A</div> </div>	<div> <div>🔥 Hotspots Reviewed</div> <div>—</div> <div>A</div> </div>	<div> <div>💩 Code Smells</div> <div>3</div> <div>A</div> </div>	<div> <div>Coverage</div> <div>0.0%</div> <div></div> </div>	<div> <div>Duplications</div> <div>0.0%</div> <div></div> </div>	<div> <div>Lines</div> <div>54</div> <div>XS</div> <div>Java</div> </div>

5. Summar

向网格中添加一个 `BoxBug` 的三步骤：

1. 创建 `BoxBug` 对象：`BoxBug bug = new BoxBug(num)`
2. 为 `Bug` 对象设置属性，例如颜色：`bug.setColor(Color.xxx)`
3. 创建一个 `Location` 实例，将 `Bug` 对象添加到 `ActorWorld` 实例中：`world.add(new Location(num1, num2), bug);`

