Java Fundamentals
3-8: World Animation and Game End Project

Objective – Use images and animation

- Add a new property/field
- Modify a method
- Detect a collision

Open your project from lesson 7 (JF_V02_S03_L07)

Complete the following tasks:

1. Save your scenario as JF_V02_S03_L08PrjStudent
2. In the robot class add two fields
    a. private GreenfootImage robotimage1;
    b. private GreenfootImage robotimage2;
3. Create a constructor method for the Robot class that assigns the two robot images as follows:
    a. robotimage1= new GreenfootImage("man01.png");
    b. robotimage2= new GreenfootImage("man02.png");
4. In Robot create a new method called public void animate().
5. In animate() create code that represents the following pseudo code:

```
If current image displayed equals robot1 image then
        set image as robot2
Else
        set image as robot1
```

6. Add calls to animate within robotMovement so that the robot will move and then call animate. The robot should only animate when moving.
7. Create a property in Robot to store the number of lives. Set the lives to 3 in the constructor.
8. Create a property in Robot called pizzaEaten to store the number of Pizza eaten. Set pizzaEaten to 0 in the constructor.
9. Create a property in Robot called pizzaEaten to store the number of Pizza eaten.
10. Modify eatPizza method in Robot so that the number of pizzaEaten is incremented by 1 for every pizza eaten.
11. Modify detectHome so that we only end the game if all the Pizza instances have been eaten. Also reset the pizza counter to 0.

12. Create a method called in Robot called removeLife(). Code this so that we decrease the number of lives by one.
13. Add the method removeLife to detectBlockCollision and detectWallCollision so that if they do collide a life is removed.
14. Add a method called testEndGame() to Robot. Code this so that if the number of lives is less than 0 then the game ends. Add this method to removeLife.
15. Add another property to Robot that stores an image called gameover.png
16. Modify testEndGame() so that before the game ends we change the image of the robot to gameoverimage
17. Create a method called increaseScore that increase the score every time we reach home. Add this method to detect Home.
18. Create a method called showStatus that will display the number of lives and score to the scorepanel.
19. Modify the removeLife and increaseScore to call showStatus.
20. Compile your scenario.
21. Save your scenario as JF_V02_S03_L08PrjStudent