

Java Fundamentals

3-1: Getting Started with Greenfoot Project

Objective – Open a scenario and create subclasses

- Open a scenario
- Create world subclass
- Create actor
- Add instance to a scenario
- Set image

Note: This project requires that at least version 2.4 of Greenfoot to be installed.

Specification:

Create a game where you are in control of a robot.

- The robot can move up, down, left and right and will have a certain amount of time to reach its home.
- The robot also has to eat all the pizza on the screen before reaching home.
- Eating pizza will give the robot more time to reach its goal.
- If the robot collides with anything else in the world then it loses a life and restarts its task again.
- The main obstacles will be a Brick wall which will not move, and Blocks that turn at different speeds and directions.

A simple design of the game could look like the following:



Open the project called JF_3_1_Prj_Start. This project is empty except it has a number of images and sounds that will be used throughout these tasks.

Complete the following tasks:

1. Save your project as JF_V02_S03_L01PrjStudent
2. Rename the subclass MyWorld to RobotWorld and set the image called rivets as the background.
3. Identify all the actors that are required for this game.
4. Create a subclass of World called RobotWorld using the image called rivets.
5. Create a subclass of actor called Robot. Use the image man01 to represent the Robot.
6. Create a subclass of actor called Wall. Use the image brick to represent the wall.
7. Create a subclass of actor called Block. Use the image Block to represent the Block.
8. Create a subclass of actor called Scorepanel. Use the image ScorePanel.
9. Create a subclass of actor called Pizza. Use the image Pizza.
10. Create a subclass of actor called Home. Use the image house-03.
11. Compile your project.
12. Add an instance of Robot to the main window
13. Save your project as JF_V02_S03_L01PrjStudent