You already know about the Snake Game from CS101. You saw the implementation with the ACM library. In this lab, you will see a new implementation with pure Java and using Object Oriented Design. You are required to study the code that you downloaded, understand it, and then implement the following missing features.

1) Add a poison item. When the snake eats the poison, it shrinks by one body part.

2) Add walls. When the snake hits the wall, game ends. You can show a message dialog and end the game using the following statements:
   ```java
   JOptionPane.showMessageDialog(null, "YOU ARE A LOSER!");
   System.exit(0);
   ```

3) Add a check for the snake eating itself. When the snake hits its own body, the game should end.

**NOTE:** Occasionally, as you play the game, body parts of the snake may get separated from each, showing weird/funny behavior. This is a concurrency bug that is related to an advanced topic. If and when such a bug occurs, simply restart the application.