#	Code Smells	Relevant Code and Commits	Reasoning
1	Code duplication	76c1756 df8e802 MazePathFinder.getNextMove() Game	Initially, the code called Breadth-first search twice, once to get the next move for X position and the other to get the next move for Y. The two methods were merged to reduce the number of searches performed.
2	Large Class	0c94006 78f6f75 Controller Game	The Game class initially handled both the game logic and user input. This process was extracted into the Controller class.
3	Poorly structured code	f79e8e6 TileMap LoadLevel	Originally, the 2d arrays for TileMap were all placed in the TileMap file, the structure was improved by adding them to a json, then using LoadLevel to read them.
4	Shotgun Surgery/Primitive Obsession	2eb2827 1431115 Constants Entity Game LoadLevel TileMap	Changing the entity or map sizes would require making multiple small changes in different classes. By creating a configuration file, we reduce the need to search and update every occurrence of the values.
5	Large Method	48873f7 TileMap.loadImages()	By extracting the loadImages() method, the constructor becomes shorter and easier to understand. The constructor now focuses on initializing the TileMap object and delegates specific tasks to helper methods.
6	Large Method	38a6b07 efaf8e2 MazePathFinder.validateTile() MazePathFinder.isPassageWay() MazePathFinder.isWithinBounds() MazePathFinder.isNotVisited()	Initially, validateTile checked for a variety of conditions. Each condition was extracted using a helper method, making the validation rules more straightforward.
7	Switch statements	72f7547 9f6ffdf 9176e04 43860f2 80fd921 GameData.add() GameData.clear()	The ArrayLists were put into a Map object. Then, the methods were converted to generic methods to utilize polymorphism, resulting in less duplication.
8	long list of method parameters	ae463cd 89784e9 TileMap Spring MazeGenerator	The Spring.amount and Spring.time were always set to zero, so they weren't needed. Removing those parameters improved code readability.

9	Code duplication	C30a629 Everything.java StartLevel.java	The code for pressing the 'Play' and 'Tutorial' button were the same except for the level they started, so it was extracted into a 'StartLevel' class.
10	Poorly structured code (Dead code)	89784e9 TileTypes.java	The TileTypes enum was never used in the TileMap switch case, so it was removed.