Code Review
By Karina Kramer & Ethan Phan

Smell 1: Bad/Confusing Variable Names

Game:
- 'Picture' was too generic of a name for our variable so we changed it to 'background' to better represent the image assigned to it.
- Commit on developEthan: df8bf1f34433aced55c942af870c07a812afd3e1

Menu:
- The draw method was previously used to draw the menu buttons so to better reflect its functionality, we named it to drawMenu instead.
- Commit on developEthan: 13d9825dfa3cf50389bf0dec102ec6b57b9fbaeb

Smell 2: Poorly Structured Code

Game:
- Remove drawBackground method. The function now resides in the draw function as it only took one line in the end.
- Commit on developEthan: df8bf1f34433aced55c942af870c07a812afd3e1

Smell 3: Dead Code

Menu:
- At the start of the project, we wanted to implement button highlighting to show the detection of the mouse every time it hovered over a menu button. We removed the code since it wasn't working properly and we didn't have time to fix it.
- Commit on developEthan: 13d9825dfa3cf50389bf0dec102ec6b57b9fbaeb

Position:
- We initially implemented toString() to be able to print the position of an entity for testing purposes. Since all entities now perform as expected, we removed the toString() method as it wasn't being used anymore and wasn't present anywhere else in the code.
- Commit on developKarina: 7b47c285c92abbcedc1807501f2e145aced9fc2a

Smell 4: Code Duplication

Cat:
- One important realization that came out of Phase 3 of our project was we needed to check if a cat and the mouse shared the same cell before and after a cat moved. This resulted in a duplicated block of code at the beginning and end of the catchMouse method that could easily be moved into its own function instead. Our refactor did exactly this and the previously repeated code block is located in checkMouseCollision. checkMouseCollision is then called in the same spots in catchMouse.
- Commit on developKarina: 7b47c285c92abbcedc1807501f2e145aced9fc2a
- We had checkValidMove repeated in the Cat class from MovingEntity with an extra condition used to check if another cat was located in an adjacent block. Our solution to avoid this repetition was to move the extra check into the getMovesFromPos method and use the old checkValidMove as it was.
- Commit on developKarina: 7b47c285c92abbcedc1807501f2e145aced9fc2a

Smell 5: Unused/Useless Variables

Game:
- Remove extra variables. Unused variables that were not needed anymore from earlier parts of the code that were used for testing.
- Commit on developEthan: df8bf1f34433aced55c942af870c07a812afd3e1

Smell 6: Feature Envy

Entity:
- Another quick fix we developed in previous stages of the project was to directly set a new position when both x and y coordinates changed instead of calling setX() and setY() methods separately. This method, setPos(), was located in the Entity class but since it only dealt with position variables, we moved it to the Position class.
- Commit on developKarina: 7b47c285c92abbcedc1807501f2e145aced9fc2a