

Assignment 3: Code Review

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For this assignment, we have decided to work on the following areas as we both implemented a significant portion of the logic and clearly understand each areas potential issues:

- The **Entity** package including
 - **Entity.java**
 - **Monster.java**
 - **Player.java**
- The **Game** package including
- **GameConsole.java**
- **CollisionChecker.java**
- **AssetSetter.java**

We performed an iterative approach to the code review by reviewing each line file by file. We discovered several “smells” for areas that required a refactor:

Smell 1: Dead imports in Assetsetter class and Player class

Solution: Removed the following lines of code: AssetSetter: line 7 Player: line 8

Commit: refactor player and entity classes -

419171eb3f5a63c52bd3d767a7cd52f9d43f3d79

Smell 2: Dead code in the draw() and dealDamage() methods in Player class

Solution: Removed the following lines of code in Player.java: 295 - 354, 197-201

Commit: refactor player and entity classes -

419171eb3f5a63c52bd3d767a7cd52f9d43f3d79

Smell 3: Dead variable for player health in player class

Solution: Removed the following lines of code in Player.java: 41, 193

Commit: refactor player and entity classes -

419171eb3f5a63c52bd3d767a7cd52f9d43f3d79

Smell 4: Unnecessary variable initialization of images in Entity class

Solution: Removed Buffered Image variable initializations in line 34 and created the variables in the Monster and Player class in lines 32 and 33 respectively. Also created separate draw methods in the player and entity class to remove the sprite redundancy in the monster class and had an overall calculation method for where to draw the entities in the entity class.

Commit: Separated draw methods for player and monster -

dd63ec74b764d422d4230457f4ccb1fa09f87aab and updated javadoc comments -
5b0dab255792fc09f8b0778a0f8474da90b2abd4

Smell 6: Incorrect syntax for javadoc comments in Player class

Solution: Fixed line 207 with removal of the incorrect method link

Commit: a542a991d9c1809d399e11f3921090a599c3277c

Smell 7: Redundant code in collision checker between object and entity class

Solution: Created a wrapper class to extract the necessary data for performing the collision calculations so that a single object type could be passed to a single method.

Commit: 169aee4fcdb1ac041ad510154915f7586237ba6d and
f86c0c7269c0fc1ed14a5042ff4c852a8b4b599a

Smell 8: High coupling in object class with screen settings and the GameConsole class

Solution: Created new class to handle the settings and refactored the code that relied on it to use the methods from the GameSettings class. Also created a new class to handle creation of elements that no longer required the gameConsole for creation.

Commit: 1717f1890fd5d1ab6e8ce17d0ccd3bbbe6c275ac,
53cf10273878fd78c3853991899a8896000695c6,
165ed7b865a1282c56d9a5268e1215434e7e7b3e,
3f541778413b983daa99023d417a567daaad5bb5,
eba36576eee4b5e5b77092d5d1b4e8db31a493a8,
4cdece3533990ac5bf25387ae341f403cee9c190,
b4c435734c9af928397c1fa71c252e9cb9b6bb53