

Assignment 3: Code Review

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Modified Packages and Classes:

- Game Package
 - GameConsole
 - KeyHandler
 - UI
 - Main
 - Utility
- Tile Package
 - TileManager
 - Tile
- Object Package
 - SuperObject
- Entity Package
 - Entity
 - Player

Smells:

1. Removed empty if() in GameConsole.update
 - Commit: **b3ff1233**
 - Smell: Dead code.
 - Solution: Removal of dead code.
2. Refactored GameConsole.gameState
 - Commit: **80d050c4**
 - Smell: Bad/confusing variable names, poorly structured code.
 - Solution: Take each constant variable and create an enum that represents the states the UI may take. Then propagate changes accordingly into KeyHandler, UI, Player.
3. Changed documentation for TileManager.readMap
 - Commit: **8a2f1039**
 - Smell: Lack of documentation.
 - Solution: Change the documentation. Removed the @linkplain annotation from the parameters and changed the map size from 128x128 to 32x32.
4. Created a drawMenu method in the UI class
 - Commit: **c1e3aa41**
 - Smell: Duplicated/similar code
 - Solution: Replaced duplicated menu drawing code, on different gameStart screens with a function that takes an Array of menu options and draws them on the screen, as well as

making the selected one red. This in turn accommodates future additions of more menu options.

5. Removed unneeded imports

- Commit: **fc54042b**
- Smell: Poorly structured code, confusing class hierarchy.
- Solution: Removed unnecessary `java.awt.*` imports considering most classes only needed `java.awt.Rectangle`, `java.awt.Graphics2D`, etc instead of the whole package space. Classes changed here include `Entity`, `GameConsole`, `Main`, `UI`, `Utility`, `SuperObject`, `Tile`.

6. Added additional error handling/checking in `TileManager.readMap`

- Commit: **05ac14e6**
- Smell: Poorly structured code
- Solution: Added an additional if statement to verify that the index in the types array is actually valid. Note that this does not dynamically update when adding more types of Tiles