Assignment 3

Report

Draw Screen
- Use better variables (bad/confusing variable names)
  - There were variables that were in the parent class that are better suited to be used over xNum, yNum, and tileSize.
  - Fixed in commit: Clarified Variable names. Changed the variable names to better reflect what the variable is holding and what it may be used for.
- Clearer documentation (lack of documentation)
  - Documentations is a bit misleading
  - Fixed in commit: Updated many functions in DrawScreen and BoardUI. Changed the java doc description of some variables to better describe what the variable actually is.
- Lots of duplicated code, could of written a helper function (code duplication)
  - Lots of function calls to draw a coloured rectangle as the background of the screen
  - Fixed in commit: Updated many functions in DrawScreen and BoardUI. Created a helper function to reduce duplicated code and possible human error.
- Alignment numbers are not grouped up well (poorly structured code)
  - Could of grouped up the alignment numbers so that there is only 1 alignment number
  - Fixed in commit: Updated many functions in DrawScreen and BoardUI. In the helper function that was created, there was no need for alignment numbers anymore, so in a way they were grouped into one place.
- Passing in too many parameters into function calls (long list of method parameters)
  - Kept passing in 3 parameters: tileSize, xNum, yNum. I could have used 2 parameters instead
  - Fixed in commit: Updated many functions in DrawScreen and BoardUI. tileSize was called by using BoardUI.tileSize, so the parameter tileSize was unneeded and made the parameters needed in the function call smaller.\

Board UI:
- Else statement in paintComponent not needed (dead code)
  - Never need to run for the game to run properly
  - Fixed in commit: Updated many functions in DrawScreen and BoardUI. The code was removed as it was unneeded at all for the game to run.

TIleHandler
- BoardUI instance in InanimateResourceLoaderUtil (dead code)
  - InanimateResourceLoaderUtil had an nonrequired BoardUI object
  - FIX: Removed BoardUI member variable from that class.
  - Fixed in commit: Removed unneeded BoardUI member variable in InanimateResourceLoaderUtil

DrawBoard
- Tilehandler instantiation takes in redundant ui object (unneeded parameters)
  - The DrawBoard constructor passed in a nonrequired BoardUI object when creating a InanimateResourceLoaderUtil object
  - FIX: Instantiate InanimateResourceLoaderUtil object without passing in a ui object
  - Fixed in commit: Removed BoardUI parameter requirement in instantiating TileHandler object
- Nonrequired local variable for storing BoardUI member variable (unneeded variable)
  - Methods in DrawBoard used a local variable to store the tileSize member variable of BoardUI class
  - FIX: Updated that to use BoardUI.tilesize whenever required
  - Fixed in commit: Removed redundant variable for storing tile size in drawTile method
- Using static variables via objects rather than a class reference
  - DrawBoard members used a BoardUI object to access static member variables
  - FIX: Access BoardUI member variables using a class reference.
  - Fixed in commit: Changed access of static member variables inside DrawBoard. Now uses BoardUI class reference instead of BoardUI object