REPORT

Shortened function by creating a separate function

We noticed some code that was being repeated within the guard's `update()` function which increased the size of the update function tremendously. In order to reduce the function size, we opted to extract the duplicate code separately to another function that can be called conveniently when required. This new function was named as the `spritePixelUpdate()` function. In addition to this, we rearranged duplicate code from the various else cases of `update()` to the top of the function to further reduce the function's size. The duplicate code rearranged was associated with the collision behaviour of the guard entity. Furthermore, we deleted the currentDirection variable which stored the current direction that the guard is facing since it was unnecessary. Refer to commit SHA `d63d4e91`.

Similarly, we do something similar for loadData() in the LoadGame class. We no longer load all the dates in the same method, but separate the various types of load functions. Specifically, we added three methods: loadInmate(), loadEntity() and loadGuard(). In this way, we can greatly reduce the length of this loadDate() method, and we can clearly know what it does. Refer to commit SHA `a627dedc`.

Comments/Documentation added to new functions and previous functions without comments

Javadoc comments added to functions listed below:

1) `spritePixelUpdate()` in Guard.java. Refer to commit SHA `d63d4e91`.
2) `GuardAlerted()` in Guard.java. Refer to commit SHA `d63d4e91`.
3) `updateDirection()` in Inmate.java. Refer to commit SHA `d63d4e91`.
4) `resetKeys()` in Inmate.java. Refer to commit SHA `d63d4e91`.
5) `resetScore()` in Inmate.java. Refer to commit SHA `d63d4e91`.
6) `setSpeed(int speed)` in MovingActor.java. Refer to commit SHA `d63d4e91`.
7) `setDirection(String direction)` in MovingActor.java. Refer to commit SHA `d63d4e91`.
8) `setSpriteNum(int spriteNum)` in MovingActor.java. Refer to commit SHA `d63d4e91`.
9) `getX()` in Entity.java. Refer to commit SHA `bb842566`.
10) `getY()` in Entity.java. Refer to commit SHA `bb842566`.
11) `setX(int x)` in Entity.java. Refer to commit SHA `bb842566`.
12) `setY(int y)` in Entity.java. Refer to commit SHA `bb842566`.
13) `setCollision(boolean collision)` in Entity.java. Refer to commit SHA `bb842566`.

Moved up the collision setter to the entity class

The `setCollision(boolean collision)` setter was moved from the MovingActor.java class to the Entity.java class as it would instigate confusion if left as is. This is because although the boolean variable was initialised under Entity.java, the setter was defined under MovingActor.java. To maintain homogeneity and consistency, we adjusted it by moving it to the rightful Entity.java class. Refer to commit SHA `bb842566`.

SoundManager

The setup in the SoundManager class is direct and raw. This results in lengthy code. So we put all the sound's names in a file called soundSetUp. When we initialize the SoundManager class, it no longer requires us to write paths to read specific sounds one by one. Instead, we get paths to all sounds by reading soundSetUp line by line.

Although this refactor did not significantly reduce the total length of the code (because we didn't use much sound), it greatly reduced the repeated code. And it will help a lot for future maintenance and modifications.

Refer to commit SHA for `28d1a223`

Delete Unused method/variables

Some methods and variables are no longer needed.

In SaveGame.java

1) `justForTest()`
   This method is just for test.
2) `save()` in SaveGame.java
   This method is older version of save the date of game

In LoadGame.java

1) `loadLevel()`
2) `loadPlayerX()`
3) `loadPlayerY()`
4) `loadTimer()`
5) `loadScore()`
6) `loadNumKeys()`
7) `loadEnemyX()`
8) `loadEnemyY()`
   These methods are all older version of load the date of game

In GameDisplay.java

1) `getArial_40()`
2) `getKeyImage()`
3) `getMessage()`
4) `getdFormat()`
   These methods are some get and set methods written when we convert public variables into private variables. But we never use them

All delete refer to commit SHA for `6d57e48a`