TankGame

The main class that creates the world, window, key listener, clock and starts it as well.

GameWorld

Creates and accounts for all objects within the world, while checking for any collisions made between objects after the clock’s time increments.

Window

An extension of JFrame that creates the window of the game and repaints the screen after being updated by the observable GameClock’s ticks. When a winner is determined, the appropriate win screen is displayed.

GamePanel

An extension of JPanel that oversees painting the contents of the Window and repaints all the relevant objects within the game.

GameClock

Keeps track of the time that has passed by and notifies GameWorld.

**GameObject**

**An observable object that may be updated accordingly as the game goes on.**

**CollidableObject**

**An abstract subclass of GameObject where it creates a hitbox via RotatablePolygon and constantly refreshes the coordinates of its hitbox, returning whether another CollidableObject intersects its area in game.**

**NonCollidableObject**

**An abstract subclass of GameObject that is only created when objects that don’t interfere with the game’s physics are needed, such as objects without collision boxes.**

DestructibleWall

A subclass of CollidableObject that is created as unmovable terrain, but can be destroyed after a certain amount of collisions made by one of the tank’s projectiles.

IndestructibleWall

A subclass of CollidableObject that is created as unmovable and unbreakable terrain.

**Sprite**

**A class that holds an object’s sprite sheet contents and returns the display of the needed image. The sheets are divided up into 60 different images and are returned depending on what direction the object is facing, turning, or how much time has passed.**

**RotatablePolygon**

**A subclass of Polygon that can be rotated about a point. Tank objects**

Tank

A CollidableObject subclass that the players control. It feeds off the inputs given by the TankListener. The tanks may create Shot objects, be moved, and collide with either wall objects.

TankListener

Uses the keyListener interface to notify the game of each tank’s current state of movement or firing.

**Shot**

**A CollidableObject subclass created when the player presses the fire key, which travels in the direction that the player’s tank is facing and is destroyed upon collision.**

**Explosion**

**A NonCollidableObject subclass created when the Shot object collides with another CollidableObject and displays an explosion animation afterwards.**