Tank

Responsibilities	Collaborators
knows the board boundries knows where it is knows the bullets its fired knows its direction knows when it last fired knows starLevel knows lives knows if it has a shield knows its image changes lives and health moves fires bullets responds to keyboard	Bullet PowerUp Board & utilities

TankAI

Responsibilities	Collaborators
knows the board boundries knows where it is knows the bullets its fired knows its direction knows when it last fired knows difficulty knows type knows if it has powerUp knows each type's image changes lives and health moves fires bullets has action correspond to difficulty	Bullet Board & Utilities

CollisionUtility

Responsibilities	Collaborators
handle different type of collision bullet - tank collision tank - AI collision tank - block collisioin bullet - AI collision bullet - block collision	Board BoardUtility Tank TankAI Bullets Blocks Animations

Sprite

Responsibilities	Collaborators
knows location can draw itself as a rectangle Can be visible or not loads an image	All objects in the game use Sprite

Block

Responsibilities	Collaborators
Destroyed by bullets Knows health Sets health Knows Type can be brick/steel/river/trees/edge/Base	Board Tank Bullets TankAI

Board

Responsibilities	Collaborators
Keep track of blocks, bullets, and tanks Moves to next stage Checks for game over Takes inputs and updates the game according to game rules	Blocks Bullets Tank TankAI CollisionUtility BoardUtility PowerUp Animation

PowerUp

Responsibilities	Collaborators
Know what powerup is holds hold a sprite disappear when picked up Capable of various types of powerUps(shield = tank is invulenrable, star = upgrade tank, tank = improve health, clock = freeze enemy tanks, bomb = blow up enemy tanks)	Board CollisionUtility Tank TankAI

Bullet

Responsibilities	Collaborators
knows where it is knows its image knows if its upgraded move	Tank TankAI Board + Utilities

Animation

Responsibilities	Collaborators
Animation when a tank spawn Explosion when bullet hit a tank or block	Board + Utilities

BoardUtility

Responsibilities	Collaborators
Spawn and update TankAI Spawn and update PowerUp Update animation Update blocks Update bullets in the board Update Tank	Board + Utilities Tank TankAI PowerUp Animation

SoundUtility

Responsibility	Collaborators
Create sound effect for many different events	Board + Utilities Tank

ImageUtility

Responsibility	Collaborator
Mainly handling the Image for Menu and ScoreBoard	Board Menu ScoreBoard

ScoreBoard

Responsibilities	Collaborator
Showing player final score when game over Knows how many of each tank were killed	Board

GameMain

Responsibilities	Collaborators
Runs the game	Menu

Menu

Responsibilities	Collaborators
Shows the menu Stars the game with enter	Board ImageUitlity