UML2 - Design Diagram

MainActivity
- -currentScene
- -gameController
- -mainMenuController
- -spriteFactory
- +controllerListenerUpdate()
- +onCreateEngineOptions()
- #onCreateResources()
- #onCreateScene()

HighScoreController
- +onSceneTouchEvent(Scene, TouchEvent)

MainMenuController
- +OnMenuItemClicked(MenuScene, IMenuItem, float, float)

GameController
- +onSceneTouchEvent(Scene, TouchEvent)

IControllerListener

AbstractController
- +addListener(IControllerListener)

GameLoop

IModel
- +getBullets()
- +getPlayers()

GameOverScene

MainMenuScene

GameScene

HighScore

HighscoreScene

HighScoreText

ScoreText

LivesText

GameObjectSprite

ItembarPanel

Sprite

SpriteFactory (Singleton)
- -Map<ObjectName, Sprite> spriteMap
- +getNewGameObjectSprite(ObjectName)
- +initialize

WeaponFactory (Singleton)
- -Map<ObjectName, AbstractWeapon> weaponMap
- +getNewWeapon(ObjectName)
- +initialize(BulletManager)

GameModel
- -players
- -bulletManager
- +update(ModelInput input, float timeElapsed)

ModelInput
- -dX
- -dY
- -fireWeapons
- -dropBomb

Player
- -playerId
- -itemBar
- -playerShip
- -score
- +update(ModelInput input, float delta)
- +getShip()
- +getPlayerId()

PlayerId

Itembar
- -items
- -playerId
- +fireWeapons()

EnemyManager
- -enemies
- +addEnemy(...)
- +getEnemies()

Difficulty

AbstractWeapon
- -bulletManager
- -playerId
- +fireShot()

SpreadWeapon

HomingWeapon

BasicWeapon

SpinningWeapon

BulletManager
- -isBombDropped
- -bullets
- +addBullet(Bullet b)
- +clear()
- +getBullets()
- +isBombDropped()
- +dropBomb()

AbstractEnemy
- +update()

ObjectName

HitAndRunEnemy

BasicEnemy

ParabolaEnemy

WaveList
- +getCurrentWave()
- +getCurrentSpawningTime()
- +next()
- +hasNext()

Wave
- +update(...)
- +addListener(...)
- +removeListener(...)

EnemySpawner
- -waveLists
- -activeWaves
- +update(...)
- +addListener(...)

Rotation

Entity
- -position
- -hitbox
- -itemId
- +collideWith(Entity e)
- +move(double x, double y)
- +getHitbox()
- +getItemId()

Position
- -coordinates
- +setX()
- +setY()
- +getX()
- +getY()

DestroyableEntity
- -health
- +isDestroyed()
- +takeDamage(int dmg)
- +getHealth()

PlayerShip

EnemyShip

AbstractBullet
- -playerId

WeaponPickup

AbstractHomingBullet

BasicBullet

BombPickup

BasicHomingBullet

PickupManager
- -pickups
- +addPickup(Pickup b)
- +clear()
- +getPickups()

Constants

Dimension