EntityManager Class Composition Relations

com.mygdx.game.engine.entity

C EntityManager

- ☐ ArrayList<CollidableEntity<Player>> players
- ☐ ArrayList<CollidableEntity<Asteroid>> asteroids
- ☐ ArrayList<CollidableEntity<UFO>> UFOs
- ☐ ArrayList<CollidableEntity<Planet>> planets
- ☐ String[] availablePlanets
- ☐ Main game

- ● ArrayList<CollidableEntity<Planet>> getPlanets()
- ● void setPlanets(ArrayList<CollidableEntity<Planet>>)
- ● String[] getAvailablePlanets()
- ● void setAvailablePlanets(String[])
- ● ArrayList<CollidableEntity<Asteroid>> getAsteroids()
- ● void setAsteroids(ArrayList<CollidableEntity<Asteroid>>)
- ● ArrayList<CollidableEntity<Player>> getPlayers()
- ● void setPlayers(int,int)
- ● ArrayList<CollidableEntity<UFO>> getUFOs()
- ● void resetFailingObjects()
- ● ArrayList spawnEnemy(String)
- ● void spawnPlanets()

has many

com.mygdx.game.game.components.game.planets

C Planet

- ☐ String planet
- ☐ Texture texture
- ☐ SpriteBatch batch
- ☐ Sprite sprite
- ☐ float width
- ☐ float height

- ● void moveUFO(CollidableEntity,int,int)
- ● long fireWeapon(CollidableEntity,Main)
- ● void dropAsteroid(CollidableEntity<Asteroid>)
- ● void dropPlanet(CollidableEntity<Planet>)
- ● String getPlanet()
- ● void setPlanet(String)
- ● Texture getTexture()
- ● void setTexture(Texture)
- ● SpriteBatch getBatch()
- ● void setBatch(SpriteBatch)
- ● float getWidth()
- ● void setWidth(float)
- ● float getHeight()
- ● void setHeight(float)
- ● Sprite getSprite()
- ● void setSprite(Sprite)

has many

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C UFO

- ☐ String imgPath
- ☐ String dir
- ☐ float speed
- ☐ Texture texture
- ☐ ArrayList<CollidableEntity<Laser>> lasers
- ☐ Rectangle rectangle
- ☐ int health
- ☐ long lastShotTime
- ☐ long shotDelay

- ● float getSpeed()
- ● void setSpeed(float)
- ● Texture getTexture()
- ● void setTexture(Texture)
- ● int getHealth()
- ● void setHealth(int)
- ● void moveUFO(CollidableEntity,int,int)
- ● void moveLeft(CollidableEntity)
- ● void moveRight(CollidableEntity)
- ● void moveDown(CollidableEntity)
- ● long fireWeapon(CollidableEntity,Main)
- ● void dropAsteroid(CollidableEntity<Asteroid>)
- ● void dropPlanet(CollidableEntity<Planet>)
- ● void moveLasers(CollidableEntity<UFO>)
- ● ArrayList<CollidableEntity<Laser>> getLasers()

C Asteroid

- ☐ Texture image
- ☐ float width
- ☐ float height

- ● Texture getImage()
- ● void setImage(Texture)
- ● float getWidth()
- ● void setWidth(float)
- ● float getHeight()
- ● void setHeight(float)
- ● void moveUFO(CollidableEntity,int,int)
- ● long fireWeapon(CollidableEntity,Main)
- ● void dropAsteroid(CollidableEntity<Asteroid>)
- ● void dropPlanet(CollidableEntity<Planet>)

has many

has many

com.mygdx.game.game.components.game.player

C Player

- ☐ String imgName
- ☐ Sprite sprite
- ☐ float width
- ☐ float height
- ☐ float speed
- ☐ int[] mainKeyboardInputs
- ☐ int[] altKeyboardInputs
- ☐ int score
- ☐ ArrayList<CollidableEntity<Laser>> lasers
- ☐ int maxHealth
- ☐ int currentHealth
- ☐ int aliensKilled
- ☐ Timestamp startTime
- ☐ Afterburner afterburner

- ● Afterburner getAfterburner()
- ● void setAfterburner(Afterburner)
- ● String getImgName()
- ● void setImgName(String)
- ● Sprite getSprite()
- ● void setSprite(Sprite)
- ● float getWidth()
- ● void setWidth(float)
- ● float getHeight()
- ● void setHeight(float)
- ● float getSpeed()
- ● void setSpeed(float)
- ● int[] getMainKeyboardInputs()
- ● void setMainKeyboardInputs(int[])
- ● int[] getAltKeyboardInputs()
- ● void setAltKeyboardInputs(int[])
- ● int getScore()
- ● void setScore(int)
- ● ArrayList<CollidableEntity<Laser>> getLasers()
- ● void setLasers(ArrayList<CollidableEntity<Laser>>)
- ● int getMaxHealth()
- ● void setMaxHealth(int)
- ● int getCurrentHealth()
- ● void setCurrentHealth(int)
- ● Timestamp getStartTime()
- ● void setStartTime(Timestamp)
- ● void limitPlayerMovement(CollidableEntity<Player>,Integer,Integer)
- ● int movePlayer(CollidableEntity<Player>,CustomInputProcessor)
- ● int getAliensKilled()
- ● void setAliensKilled(int)
- ● void moveLasers(CollidableEntity<Player>)
- ● void spawnLasers(CustomInputProcessor,CollidableEntity<Player>,Main)
- ● void savePlayerData(Main)