Fichier de Conception

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1 Modifications on the given API

- ActorGame implements the Interface GameWithlevels so that the finishLine gets to inform Game that the level has been passed through the method nextLevel().Since BikeGame is a simple game made of one level then it says you win, otherwise it goes to the next until it exhausts the list.

- Defining the method cancelGravity in the class Entity, this method was used in the gravitationLessField to cancel the gravity on exactly the entity calling it, by setting the body's Gravity scale to 0.

- Defining the method restoreGravity in the class Entity, this method resotres the gravity scale for the body back to 1.

- Defining SetKinematic() in the class EntityBuilder. It is used in the constructor of the Kinematic class to instantiate the attribute entity to be kinematic through the entityBuilder.

2 Extensions and Components

2.1 package ch.epfl.cs107.play.game.actor.general

- Kinematic: is an hybrid body which is not affected by forces and collisions like a static body but can moved with a linear velocity like a dynamic body.

- Bike: A bicycle.

- Wheel: the wheels of the bike.

- Terrain: represents the road on which the bike moves.

- FrictionlessTerrain: represents a frictionless Terrain, it extends Terrain.

- Finish: A finish line where the level or the game ends.It Extends Triggers.

- Pendulum: Simple Pendulum

- Triggers: Actors that reacts with the bike but don't collide with it

- PickUps: Objects that the biker collects along the road. It extends Triggers

- Rocket: A pickUp that apply an impulse on the biker.

- Trampoline: : A Trampoline.

- Peaks: They are deadly pics that kills the bike if in contact with it.

- Bomb: A Bomb that destroy an entity when it hits it.

- Lever: A trigger that is made of two Entities a crate and lever, once the is in contact with the lever the crate disappears.

- Worm:: Deadly moving worm that kills the player.It extends Kinematics.

- GravitationlessField: A zone in space where the biker floats.

- Wood : A wooden planck

3 Levels and Games

3.1 package ch.epfl.cs107.play.game.actor.bikegame;

- BikeGame
- JumpLevel
- FallingLevel
- PikalaGame