# Software Engineering Methods - TI2206

# Assignment 2

Group 47



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# **Assignment 2**

# Requirement 1: Player animation on walking, shooting and standing

As a player, I want to dragon to be animated, to increase user feedback and aesthetics.

## UML:

■ Animation	
-currentFrame: int -delay: long -frames: BufferedImage[] -playedOnce: boolean -startTime: long	
+hasPlayedOnce(): boolean +update(): void 	

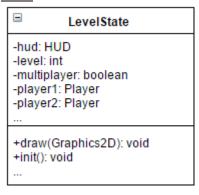
### Description:

The class 'Animation' constructs frames and plays those frames. The class animation belongs to the entity package.

# Requirement 2: Local multiplayer possibility

In the menu the user can select 2 player mode, which allows two people to play at the same time.

#### UML:



#### **Description:**

The multiplayer possibility is built into the level state. When the player selects the multiplayer feature in the main menu, the boolean multiplayer becomes true and a second player is initiated.

# Requirement 3: The game shall play a music theme when in progress.

As a player, while I am playing the game I want to hear the theme music.

#### UML:

□ LevelState	
-hud: HUD -level: int -musicFileName: String -paused: boolean 	
+keyPressed(int): void +keyReleased(int): void 	

MenuState
ic: AudioPlayer Choice: int
essed(int): void eleased(int): void

☐ GameOver State
-bg: String -currenChoice: int -font: Font -image: BufferedImage 
+keyPressed(int): void +keyReleased(int): void 

#### **Description:**

The additions that make the music possible are found in the classes LevelState, MenuState and GameOverState. The audioplayer can be found in the audio package.

# Requirement 4: The game shall play a sound when jumping, shooting or destroying enemies.

As a player, I want the dragon hear making a sound when jumping, shooting or destroying enemies.

#### UML:



#### Description:

The sounds are called in the Player class, for example in the directEnemyCollision.

# Requirement 5: Power up's

1. Temporarily speed up a player's movement.

As a player, I want the dragon to speed up for 10 seconds, when picking up the Speed up Power Up.

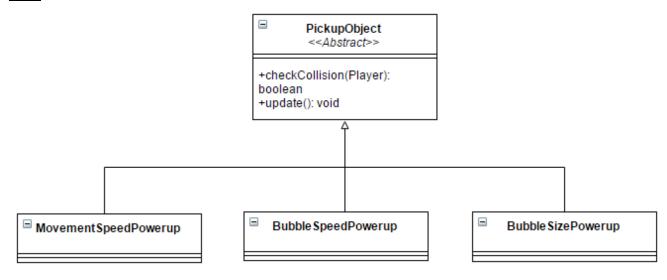
2. Increase bubble's size

As a player, I want the bubbles to increase in size for 10 seconds, when picking up the Increase Bubble Size Power Up

3. Increase bubble's movement speed

As a player, I want the shoot bubbles to move a longer distance, when picking up the Increase Bubble Distance Up.

## UML:



#### **Description:**

For all the power up's a new package called 'pickups' is created. The abstract class is PickupObject, of which all the power ups are the instances.