

| GameMain | |
|---|---|
| <ul style="list-style-type: none"> - Is able to run - Initialize the game loop and Scene - Load the game | <ul style="list-style-type: none"> - SuperOmario - AnimationTimer |

| GameWorld | |
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| <ul style="list-style-type: none"> - Is an abstract class that can handle KeyEvents - Builds and sets the game loop - As part of the game loop, update the Sprites in game since last frame | <ul style="list-style-type: none"> - Background |

| SuperOmario | |
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| <ul style="list-style-type: none"> - Implements all the abstract methods in GameWorld - Creates the winning flag - Creates the player - Sets images for player - Play music - Updates the sprites for each frame - Checks for collisions between player and other Sprites | <ul style="list-style-type: none"> - BackgroundManager - EnemyManager - WinFlag - Player |

| Sprite | |
|---|---|
| <ul style="list-style-type: none"> - Has a position - Has a velocity - Has an acceleration - Has width - Has height - The attributes above can be modified as needed - Can determine if it intersects another Sprite | <ul style="list-style-type: none"> - SpriteManager |

| SpriteManager | |
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| <ul style="list-style-type: none"> - Manages a number of Sprites for animation - Updates all the Sprites contained in it | <ul style="list-style-type: none"> - Sprite |

| Player | |
|---|---|
| <ul style="list-style-type: none"> - Creates an object represented by the player avatar - Controls the gravity of the player avatar - Controls the acceleration/deceleration - Updates position and dimensions - Check if the player avatar is on the ground | <ul style="list-style-type: none"> - GameWorld |

| Enemy | |
|---|---|
| <ul style="list-style-type: none"> - Creates a new enemy in the game - Handles the visual representation - Handles the speed of the enemy - Handles the oscillatory motion of the enemy | <ul style="list-style-type: none"> - EnemyManager - GameWorld - Platform |

| EnemyManager | |
|---|--|
| <ul style="list-style-type: none"> - Adds an enemy to each platform - Remove an enemy once it is eliminated | <ul style="list-style-type: none"> - Enemy - GameWorld - SuperOmario - BackgroundManager |

| Coffee | |
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| <ul style="list-style-type: none"> - Create a coffee object - Base bindings off of ratio between image dimensions, and initial game dimensions - Make the coffee visible - Update the coffee's velocity - Make it hover - Update the coffee | <ul style="list-style-type: none"> - GameWorld - SuperOmario |

| Platform | |
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| <ul style="list-style-type: none"> - Put Platforms in the game for the Player to move upon - Adjust the proportions of the platforms to the Game Scene | <ul style="list-style-type: none"> - GameWorld - BackgroundManager |

| Life | |
|---|---|
| <ul style="list-style-type: none"> - Represent the number of lives available to a player - Deduct from the number of lives when player dies | <ul style="list-style-type: none"> - GameWorld |

| Background | |
|---|---|
| <ul style="list-style-type: none"> - Sets the background image - Sets position of background at beginning of the game Scene | <ul style="list-style-type: none"> - GameWorld |

| BackgroundManager | |
|---|---|
| <ul style="list-style-type: none"> - Contains all the Platforms - Contains all the Coffees - Remove a life if player dies - Remove a coffee if player gains one | <ul style="list-style-type: none"> - GameWorld - Platform - Coffee - Life |

| ImageViewSprite | |
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| <ul style="list-style-type: none"> - Displays a Sprite - Sets the viewport and determine where it needs to be positioned - Sets the FPS | <ul style="list-style-type: none"> - SuperOmario - AnimationTimer |