**ImageActor:**

Extends the Actor class. Adds the following variables:

|  |  |  |
| --- | --- | --- |
| Name | Type | Use |
| t | TextureRegion | Stores the image belonging to the actor for drawing |
| bounds | Rectangle | Used to calculate collisions |

Adds the following functions:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function | Function Type | Returns | Return Type | Usage |
| ImageActor() | Constructor | N/A | N/A | Initialises ImageActor’s location and dimensions |
| ImageActor(String url) | Constructor | N/A | N/A | Same as ImageActor() but also initialises the image using the url |
| setImage(String url) | Setter | N/A | N/A | Sets the actor’s image for drawing |
| getImage() | Getter | Actor’s image | TextureRegion | Gets the actor’s image |
| setRectBounds() | Setter | N/A | N/A | Sets the rectangle used to calculate Actor’s collisions |
| getRectBounds() | Getter | Actor’s bounds | Rectangle | Gets the rectangle used to calculate Actor’s collisions |
| draw(Batch b, float dt) | Graphics | N/A | N/A | Draws the actor’s image at the actor’s coordinates |

**AnimatedActor:**

Extends the ImageActor class. Adds the following variables:

|  |  |  |
| --- | --- | --- |
| Name | Type | Usage |
| anims | HashMap<String, Animation<TextureRegion>> | Stores all of the animations that the AnimatedActor might use |
| currentAnim | Animation<TexturRegion> | Stores the animation that the AnimatedActor is currently using |
| timing | float | Stores the timing for the animation |

Adds the following functions:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function | Function Type | Returns | Return Type | Usage |
| AnimatedActor() | Constructor | N/A | N/A | Calls ImageActor() to initialise position and then initialises currentAnim and timing |
| setFrameSize(float x, float y) | Setter | N/A | N/A | Sets the width and height of animation frames |
| getFrameSize() | Getter | Frame dimensions | Vector2 | Returns a 2d Vector of frame width and height |
| storeAnim(String url, String name , float width, float fr) | Graphics | N/A | N/A | Creates an animation base on the image at the url, the frame width and the frame rate (fr) and stores that in anims using the name as a key |
| setAnim(String name) | Graphics | N/A | N/A | Sets the animation corresponding to “name” as the currentAnim |
| draw(Batch b, float dt) | Graphics | N/A | N/A | Draws the current frame of the current animation |
| act(float dt) | Processing | N/A | N/A | Increments current timing by dt |

**MovingActor:**

Extends the AnimatedActor class. Adds the following variables:

|  |  |  |
| --- | --- | --- |
| Name | Type | Usage |
| velX | float | Stores horizontal velocity |
| velY | float | Stores vertical velocity |
| accX | float | Stores horizontal acceleration |
| accY | float | Stores vertical acceleration |
| vRot | float | Stores rotation speed |

Adds the following functions:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function | Function Type | Returns | Return Type | Usage |
| MovingActor() | Constructor | N/A | N/A | Initialises MovingActor |
| setVelocity(float vx, float vy) | Setter | N/A | N/A | Sets velX and velY |
| setVelX(float vx) | Setter | N/A | N/A | Sets velX |
| setVelY(float vy) | Setter | N/A | N/A | Sets velY |
| setAcceleration(float ax, float ay) | Setter | N/A | N/A | Sets accX and accY |
| setAngularVelocity(float a) | Setter | N/A | N/A | Sets vRot |
| act(float dt) | Processing | N/A | N/A | Updates position, velocity and rotation depending upon time since last update |

**BaseScreen:**

Implements both the Screen class and the InputMultiplexer class. Adds the following variables:

|  |  |  |
| --- | --- | --- |
| Name | Type | Usage |
| g | Game | Stores a copy of the game that is running this screen |
| backStage | Stage | Stage used for the background Actors of graphics |
| entityStage | Stage | Stage used for the entities |
| uiStage | Stage | Stage used for UI elements |
| paused | boolean | Stores whether game is paused or not |
| viewWidth | float | Stores screen width |
| viewHeight | float | Stores screenHeight |

Adds the following functions:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Function | Function Type | Returns | Return Type | Usage |
| BaseScreen(Game g) | Constructor | N/A | N/A | Initialises stages, sets up input capability, runs create() |
| create() | Abstract | N/A | N/A | N/A |
| update(float dt) | Abstract | N/A | N/A | N/A |
| show() | Processing | N/A | N/A | Function for running commands when screen shown |
| render(float dt) | Graphics and Processing | N/A | N/A | Updates the stages, calls update(float dt), refreshes the screen and then draws the stages |
| resize(int width, int height) | Graphics | N/A | N/A | Code run to resize the screen |
| pause() | Processing | N/A | N/A | Pauses the game |
| resume() | Processing | N/A | N/A | Unpauses the game |
| hide() | Processing | N/A | N/A | Function for commands to be run when screen minimised |
| dispose() | Garbage Collection | N/A | N/A | Disposes of stages when screen disposed of |