Tilemap

- vertices : sf::VertexArray
- tileset_texture : sf::Texture

load(const std::string& tileset, sf::Vector2u tileSize, const int* tiles, unsigned int width, unsigned int height) : bool
collisionCheck(sf::IntRect player_hitbox, int tile_type, sf::Vector2u tileSize, const int* tiles, unsigned int width, unsigned int height) : bool
draw(sf::RenderTarget& target, sf::RenderStates states) const : virtual void

Text

- text : sf::Text
- text_ptr : sf::Text*

+ Text()
+ ~Text()
+ init(const std::string& text_string , const sf::Font& font, int size) : void
+ getText() : sf::Text*

GameObject

- object_sprite : sf::Sprite
- sprite_ptr : sf::Sprite*
- moving_direction : Vector2
- visibility : bool
- move_right : bool
- move_left : bool

+ GameObject()
+ ~GameObject()
+ initialiseSprite(sf::Texture& texture, std::string filename) : void
+ getSprite() : sf::Sprite*
+ setMovingDirection(float x, float y) : void
+ getMovingDirection() : Vector2
+ setMoveLeftBool(bool boolean) : void
+ getMoveLeftBool() : bool
+ setMoveRightBool(bool boolean) : void
+ getMoveRightBool() : bool
+ setVisibility(bool boolean) : void
+ getVisibility() : bool

Vector

+ x : float
+ y : float

+ Vector(float x_, float y_)
+ Vector (const Vector& rhs)
+ Vector operator*(float scaler)
+ Vector& operator=(const Vector& rhs)
+ normalise() : void

Character

- dead : bool
- on_moving_platform : bool

+ Character()
+ ~Character()
+ isOnMovingPlatform() : bool
+ setOnMovingPlatform(bool boolean) : void
+ isDead() : bool
+ setDead(bool boolean) : void

Player

-life : int
-isJumping : bool
-straightJump : bool
-can_jump : bool
-playerState : PlayerState
+horizontal_force : float

+ PlayerState : enum
+ Player()
+ ~Player()
+ setNumberofLife(int noOfLife) : void
+ getNumberOfLife() : int
+ isStraightJump() : bool
+ setStraightJump(bool boolean) : void
+ playerIsJumping() : bool
+ setIsJumping(bool boolean) : void
+ isCanJump() : bool
+ setCanJump(bool boolean) : void
+ getPlayerState() : PlayerState
+ setPlayerState(PlayerState playerState) : void

Game

+ GameState : enum
- window : sf::RenderWindow&
-gameState : GameState
-font : sf::Font

-score : int
-scoreboard : Text
-score_number : std::ostringstream

-time_text : Text
-timer : sf::Clock
-timer_time : std::ostringstream
-last_round_time : float
-final_time_text : Text

- camera : sf::View

-background : GameObject
-background_texture : sf::Texture

-title : Text
-press_start_text : Text
-start_text : Text
-quit_text : Text
-main_menu_selected_text : bool

- left_guide : Text
- GameObject a_key :
- sf::Texture a_key_texture :
- right_guide : Text
- GameObject d_key :
- sf::Texture d_key_texture :
- jump_guide : Text
- space_key : GameObject
- space_key_texture : sf::Texture
- coins_guide_text : Text
- coin_guide : GameObject
- coin_guide_texture : sf::Texture
- enemy_guide : Text
- slime_guide : GameObject
- slime_guide_texture : sf::Texture
- exit_guide : Text

- life_icon : GameObject
- life_icon_texture : sf::Texture
- life_text : Text
- life_left : std::ostringstream
- key_press_text : Text

- pause_menu_background : sf::RectangleShape
- pause_menu_text : Text
- continue_text : Text
- quit_game_text : Text
- pause : bool
- pause_selected_text : bool
- paused_time : float

- Player player :

- player_idle_texture : sf::Texture
- player_idle_texture_rect : sf::IntRect
- player_run_texture : sf::Texture
- player_run_texture_rect : sf::IntRect
- player_jump_texture : sf::Texture
- player_texture_rect : sf::IntRect
- player_fall_texture : sf::Texture
- player_hurt_texture : sf::Texture

- idle_anim_click : sf::Clock
- run_anim_clock : sf::Clock
- gravity_scaler : float
- player_ground_hitbox : sf::IntRect
- player_top_hitbox : sf::IntRect
- player_left_hitbox : sf::IntRect
- player_right_hitbox : sf::IntRect
- player_velocity_x : float
- player_velocity_y : float

- no_of_slimes : int
- slime[6] : Character
- slime_texture : sf::Texture
- slime_hitbox[6] : sf::IntRect
- slime_ground_hitbox[6] : sf::IntRect
- slime_velocity_x : float
- slime_texture_rect : sf::IntRect
- slime_anim_clock : sf::Clock

- slime_spwan_pos_x_list[6] : float
- slime_spwan_pos_y_list[6] : float

- no_of_coins : int
- coins[31] :GameObject
- coins_texture : sf::Texture
- coins_texture_rect : sf::IntRect
- coin_anim_clock : sf::Clock
- coins_spwan_pos_x_list[31] : float
- coins_spwan_pos_y_list[31] : float

- no_of_m_platform : int
- moving_platform[3] : GameObject
- m_platform_texture : sf::Texture
- platform_velocity_y[3] : float
- platform_hitbox[3] : sf::IntRect

- house : GameObject
- house_texture : sf::Texture

- goal : GameObject
- goal_texture : sf::Texture

- tilemap : Tilemap
- ground_tile_texture : sf::Texture
- map_width : int
- map_height : int

- level[5168] : int

- congrats_text : Text
- final_score : Text
- restart_text : Text
- back_to_menu_text : Text
- selection : bool
- Text game_over_text : Text

+Game(sf::RenderWindow& window)
+ ~Game()
+ init() : bool
+ update(float dt) : void
+ render() : void
+ keyPressed(sf::Event event) : void
+ keyReleased(sf::Event event) : void
+ initMap() : bool
+ movingSpriteCollisionCheck(sf::IntRect subject_hitbox, sf::IntRect hitobject_hitbox) : bool
+ collisionCheck(sf::Sprite subject_sprite, sf::Sprite object_sprite) : bool
+ scoreBoardUpdate(int score_change) : void
+ reset() : void
+ resetGame() : void