Entities

```
+ enum class MovementStates
- sf::Sprite* sprite = nullptr;
- Vector2 velocity = Vector2(0,0);
- float gravity = 9.8;
- bool moving = false;
- int attacking = 0;
- int height = -300;
- bool jumped = false;
- bool dead = false;
# sf::Clock timer;
# sf::IntRect current_frame = sf::IntRect(0,0,50,40);
# sf::IntRect hit_box_frame = sf::IntRect (0,0,0,0);
```

```
+ void initialiseSprite(sf::Texture &Texture);
+ void initialiseAnimation();
+ bool isJumped() const;
+ void setJumped(bool jumped);
+ sf::Sprite* getSprite() const;
+ float getGravity() const;
+ const Vector2& getVelocity() const;
+ void setVelocity(const Vector2& velocity);
+ bool isMoving() const;
+ void setMoving(bool moving);
+ const sf::Clock& getTimer() const;
+ int getHeight() const;
+ int isAttacking() const;
+ void setAttacking(int attacking);
+ void setCurrentFrameLeft(int left);
+ bool isDead() const;
+ void setDead(bool dead);
```

Keys

```
- sf::Texture key_texture;
- sf::Sprite key_sprite;
- bool active = true;
```

```
+ const sf::Sprite&
getKeySprite() const;
+ bool isActive() const;
+ void setActive(bool active)
+ void keysInit(int i);
+ bool
collection(sf::RectangleShape
hit_box);
```

Vector 2

```
+ Vector2(float x1, float x2)
+ float x = 0;
+ float y = 0;
```

Game

```
+ Game(sf::RenderWindow&
window);
+ ~Game();
+ bool init();
+ void update(float dt);
+ void render();
+ void mouseClicked(sf::Event
event);
+ void keyPressed(sf::Event
event);
+ void keyReleased(sf::Event
event);
+ void deathCheck();
+ void menuInit();
+ void winScreen();
+ void lossScreen();
+ void endGameOptions();
+ void gameBackgroundInit();
+ void cameraInit();
+ void livesInit();
+ void keysInit();
+ void audioInit();
+ void audioController();
+ void Reset();
+ void jumpScareInit();
+ void jumpScare();
```

```
- sf::RenderWindow& window;
- enum class GameState
  {
    MENU = 0,
    DEATH = 1,
    WIN = 2,
    LEVEL = 3,
    JUMP_SCARE = 4,
  };
- GameState Active
{GameState::MENU};
- Player player;
- Monster monster1;
- Monster monster2;
- Monster monster3;
- Monster monster4;
- Monster monster5;
- Monster monster6;
- Monster monster7;
- Monster monster8;
- Monster monsters[8] =
{monster1,monster2,
monster3,monster4,
monster5,monster6,
monster7,monster8};
- Map map1;
- Exit exit1;
- Keys key1;
- Keys key2;
- Keys key3;
- Keys keys[3] = {key1, key2,
key3};
- int keys_collected = 0;
- int lives = 3;
- bool other = false;
- bool reset = false;
- bool second_jump;
- sf::Clock buffer;
- sf::Clock jumpscare;
- sf::Text menu_text;
- sf::Text controls;
- sf::Text win_text;
- sf::Text loss_text;
- sf::Text reset_option;
- sf::Text quit_option;
- sf::Text lives_max;
- sf::Text current_life;
- sf::Text keys_max;
- sf::Text current_keys;
- sf::Font open_sans;
- sf::SoundBuffer menu;
- sf::Sound menu_song;
- sf::SoundBuffer level_one;
- sf::Sound level_one_song;
- sf::SoundBuffer hollow;
- sf::Sound hollow_song;
- sf::SoundBuffer
jumpscare_buffer;
- sf::Sound jumpscare_sound;
- sf::Texture background_0;
- sf::Sprite bg_sprite_0;
- sf::Texture background_1;
- sf::Sprite bg_sprite_1;
- sf::Texture background_2;
- sf::Sprite bg_sprite_2;
- sf::Texture jump_scare_text;
- sf::Sprite jump_scare_sprite;
- sf::View FollowCamera;
- sf::View StaticCamera;
```

Map

```
- sf::Texture map1_texture;
- sf::Sprite map1_sprite;
- sf::RectangleShape hit_blocks_1;
- sf::RectangleShape hit_blocks_2;
- sf::RectangleShape hit_blocks_3;
- sf::RectangleShape hit_blocks_4;
- sf::RectangleShape hit_blocks_5;
- sf::RectangleShape hit_blocks_6;
- sf::RectangleShape hit_blocks_7;
- sf::RectangleShape hit_blocks_8;
- sf::RectangleShape hit_blocks_9;
- sf::RectangleShape hit_blocks_10;
- sf::RectangleShape hit_blocks_11;
- sf::RectangleShape hit_blocks_12;
- std::vector<sf::RectangleShape>
hit_blocks_bundle;
```

```
  const sf::Sprite& getMap1Sprite() const;
  void mapInit();
  bool collisions(const
sf::RectangleShape& hit_box, Vector2
velocity);
```

Exit

```
- sf::Texture exit_texture;
- sf::Sprite exit_sprite;
```

```
+ const sf::Sprite&
getExitSprite() const;
+ void exitInit();
```

Monster

```
- sf::Texture monster_texture;
- sf::String monster_texture_file =
"Data/Images/Enemy/Assets.png";
- MovementStates move_state
{MovementStates::IDLE};
- sf::RectangleShape monster_hit_box;
```

```
+ const sf::RectangleShape&
getMonsterHitBox() const;
+ MovementStates getMoveState()
const;
+ void setMoveState(MovementStates
moveState);
+ void monsterMap1Init(int i);
+ void updateMonsterAnimation(int
player_pos);
+ void monsterHitBox();
```

Player

```
- sf::Texture player_texture;
- sf::String player_texture_file =
"Data/Images/Player/adventurer-
v1.5-Sheet.png";
- MovementStates move_state
{MovementStates::IDLE};
- sf::RectangleShape player_hit_box;
- sf::CircleShape attack_one_hit_box;
- sf::IntRect ground_check_frame;
- sf::RectangleShape ground_check;
```

```
+ MovementStates getMoveState()
const;
+ void
setMoveState(MovementStates
moveState);
+ const sf::RectangleShape&
getPlayerHitBox() const;
+ const sf::CircleShape&
getAttackOneHitBox() const;
+ const sf::RectangleShape&
getGroundCheck() const;
+ void playerInit();
+ void updatePlayerAnimations();
+ void playerHitBox();
+ void groundCheck();
+ void attackHitBox();
```