

1 UML Class Diagram

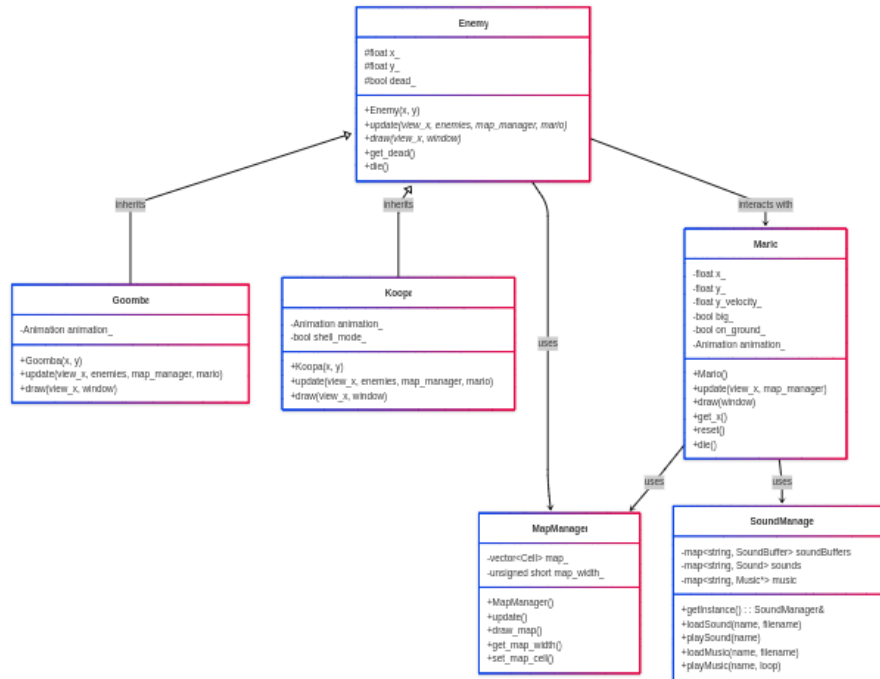


Figure 1: UML Class Diagram

2 Details

2.1 Mario Class

Mario	
Attributes	Methods
-float x_ -float y_ -float y_velocity_ -bool big_ -bool on_ground_ -Animation animation_	+Mario() +update(view_x, map_manager) +draw(window) +get_x() +reset() +die()

Enemy	
Attributes	Methods
#float x_ #float y_ #bool dead_	+Enemy(x, y) +update(view_x, enemies, map_manager, mario)* +draw(view_x, window)* +get_dead() +die()

2.2 Enemy Class (Abstract)

2.3 Goomba Class

Goomba	
Attributes	Methods
-Animation animation_	+Goomba(x, y) +update(view_x, enemies, map_manager, mario) +draw(view_x, window)

2.4 Koopa Class

Koopa	
Attributes	Methods
-Animation animation_ -bool shell_mode_	+Koopa(x, y) +update(view_x, enemies, map_manager, mario) +draw(view_x, window)

2.5 MapManager Class

2.6 SoundManager Class

2.7 Class Relationships

- Mario uses MapManager
- Enemy is inherited by Goomba
- Enemy is inherited by Koopa
- Enemy uses MapManager
- Enemy interacts with Mario
- Mario uses SoundManager

MapManager	
Attributes	Methods
-vector<Cell> map_ -unsigned short map_width_	+MapManager() +update() +draw_map() +get_map_width() +set_map_cell()

SoundManager	
Attributes	Methods
-map<string, SoundBuffer> soundBuffers -map<string, Sound> sounds -map<string, Music*> music	+getInstance() : SoundManager& +loadSound(name, filename) +playSound(name) +loadMusic(name, filename) +playMusic(name, loop)