



Spieler

Player

```
rtRun = list
ltRun = list
rtJump = list
ltJump = list
rtHurt = list
ltHurt = list
rtDeath = list
ltDeath = list
rtAttack1Seq = list
ltAttack1Seq = list
frameInSeq = int
left = bool
right = bool
isAttack = bool
isHurt = bool
isDeath = bool
isRestart = bool
speed_x = int
speed_y = int
go_left()
go_right()
stop()
jump()
is_attack()
is_hurt()
is_death()
gravity()
update()
init_sequences()
get_image_from_dir(sequenceDir = str, sequenceDirection = str)
set_animation_sequence(listOfImages = list)
animate(sequence, trigger, attack, frames_per_sequence)
```

NiceToHave (aber nicht implementiert)

Waffen

```
<<Abstract>>
Weapon
dmg
pygame.image textureSeq = []
pygame.image actionTextureSeq = []
+attack()
```

```
MeeleWeapon
-__members__
+attack()
```

```
RangeWeapon
isFlyThrough = False
+attack()
```

Projekteile

```
-position
-damage
-Type
-texture
-speed
-size
-dmgLossOverTime
+getPosition()
+getSprite()
+bool isColliding(pygame.sprite)
+pygame.sprite.group
+isColliding(pygame.sprite.group)
+calculateDirection(unsigned int ShootAngle)
+wallCollision()
+playerCollision()
+update()
```

Spiel

Tile

```
parameters = {}
String Name
int layer
int ID
int groupID
bool isClippable
int dmgNeededToDestroy
int damageOnCollision
int damageOverTime
playerMvSlowDown = {}
pygame.Rect rect
playerMvManipulation = {}
int imagesIndex
images = []
int tick = ANIMATION_INTERVAL
int state = 0
pygame.image
scaleTexture(pygame.image texture)
_init(texturePath = "", newParameters = {}, pygame.Rect rect)
load_textures(filePath = "")
get_solid(rgb = 0)
bool has_animation(isActiveSequence)
bool has_collision()
bool has_damage()
int get_ID()
int get_group_ID()
set_state(newState)
update()
```

Level

```
pygame.rect gridSize
parameters = {}
tileIDMap = {}
allTiles =
pygame.sprite.LayeredUpdates()
animatedTiles = pygame.sprite.group()
damagingTiles =
pygame.sprite.group()
collidableTiles = pygame.sprite.group()
isParsed = False
isCompiled = False
isBuild = False
parsedTileIDs = {}
currentTilePos = {}
get_neighbors(pos = 0)
int match_neighbors(neighbor1, neighbor2)
parse_lv_file(filePath = "")
parse_texture_set()
compile()
build()
unbuild()
rebuild()
tile_exists(pos = 0)
get_tile_ID(pos = 0)
get_ID()
set_tile(pos = 0, groupID = 0)
unset_tile(pos = 0)
pygame.sprite.group
get_unused_tiles()
bool is_build()
```

BattleCastle

```
-Levels[Level]
-bool error
-int activeLevel
pygame.sprite.group loadedLevel
pygame.sprite.LayeredUpdates
allTiles
pygame.sprite.group harmfulTiles
pygame.sprite.group players
pygame.sprite.group collidableTiles
pygame.sprite.group animatedTiles
-bool isLoading
-Player Player1, Player2
load_levels()
unset_loading_spinner
load_loading_spinner(filePath)
get_loaded_level()
isColliding(pygame.sprite.sprite)
isColliding(pygame.sprite.group)
update()
draw(pygame.surface)
```

Das Handling des gesamten Spiels wird in diesem Bereich programmiert, sodass das restliche Programm nur noch eine Liste mit sprites bzw. eine surface erhält

Die Waffen werden in Meele und Fernkampf Waffen unterteilt. Jede Meele- und Fernkampf Waffe hat einzigartige Eigenschaften, zudem Projekteile

Projekteile werden in verschiedene Projektiletypen unterteilt. Jeder Projektiletyp hat einzigartige Eigenschaften, Geladene Items können sogar Projekteile verändern