Parcours: Développeur D’application Python

Projet 3: Aidez MacGyver à s’échapper

I-Présentation du jeu et de ses contraintes

- *Quel est le but du jeu*

- *Les contraintes*

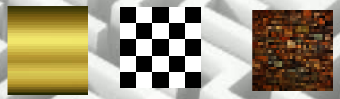
II-Conception du projet

- *les images et le son :*

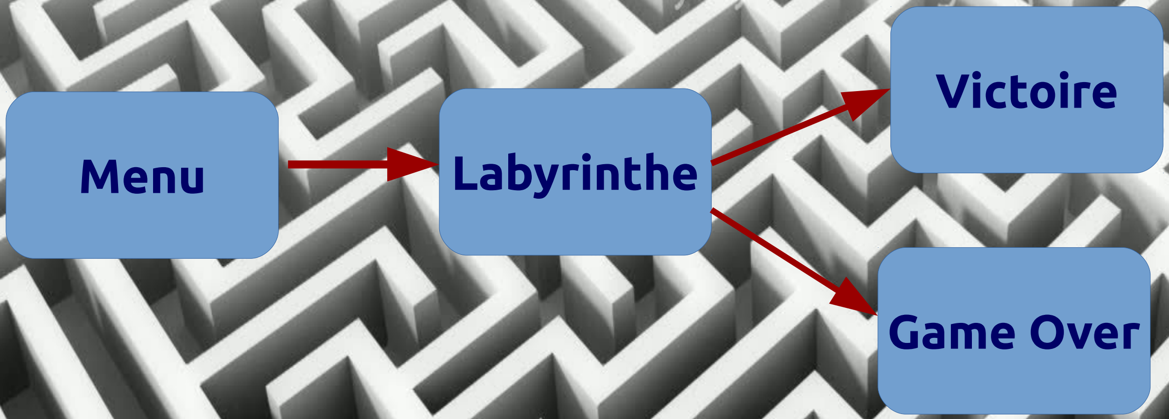
personnages

objets

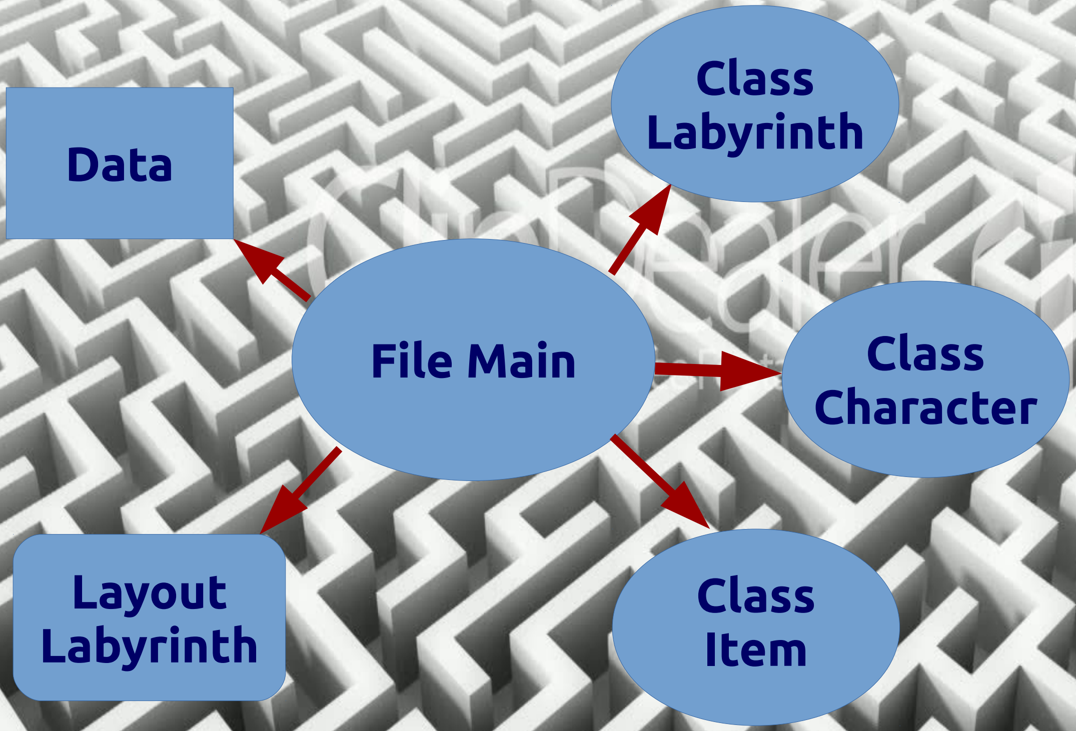
éléments décor



- *Schématisation du labyrinthe :*



- *Gestion du programme:*



File Main

Data

Class Labyrinth

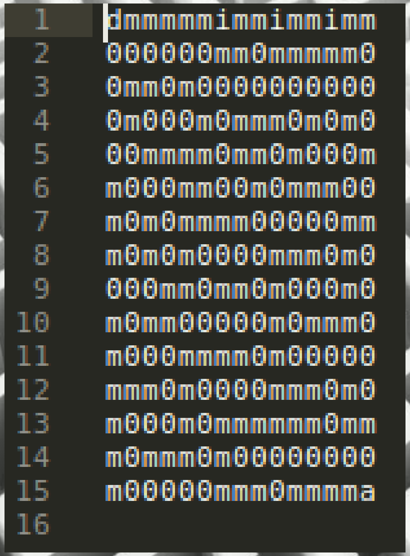
Class Character

Class Item

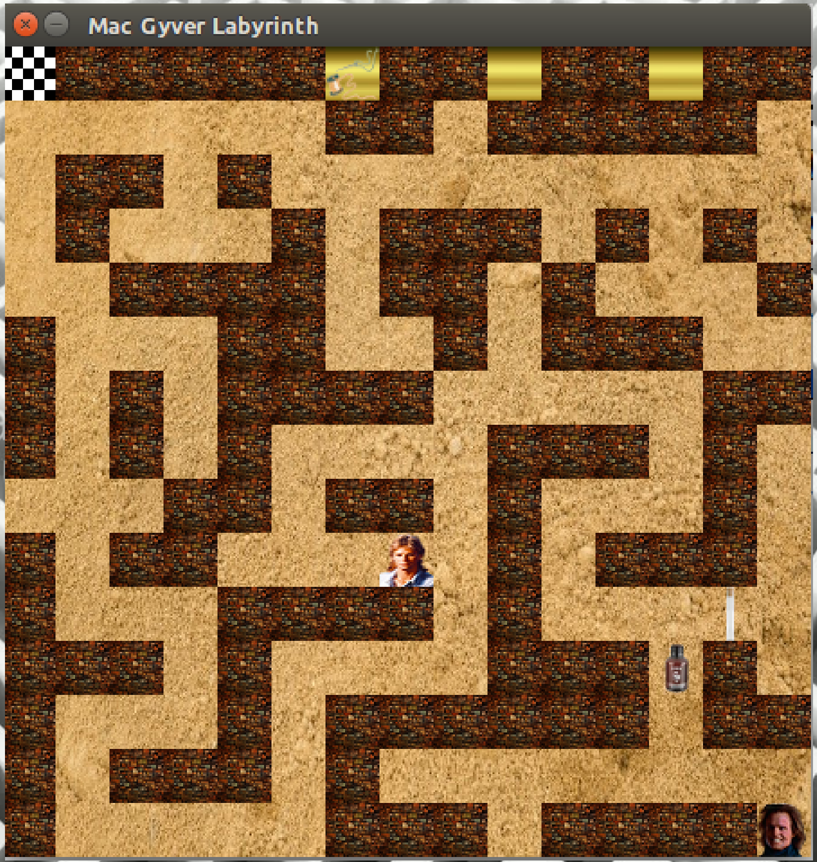
Layout Labyrinth

III-Réalisation du projet

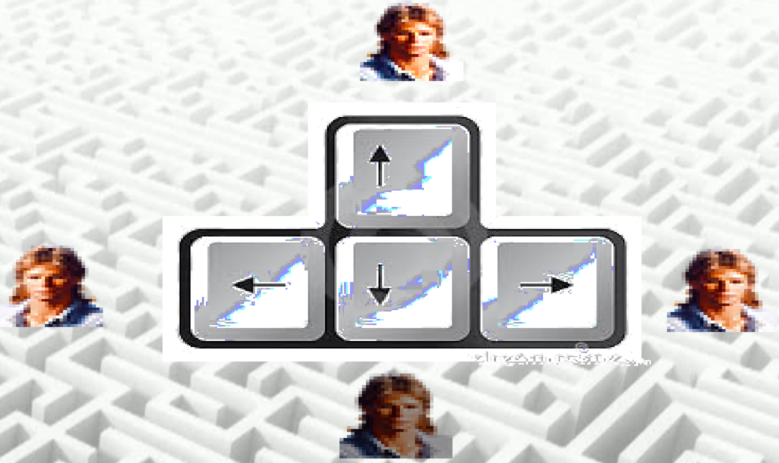
- *Plan du Labyrinthe et Chargement du labyrinthe :*

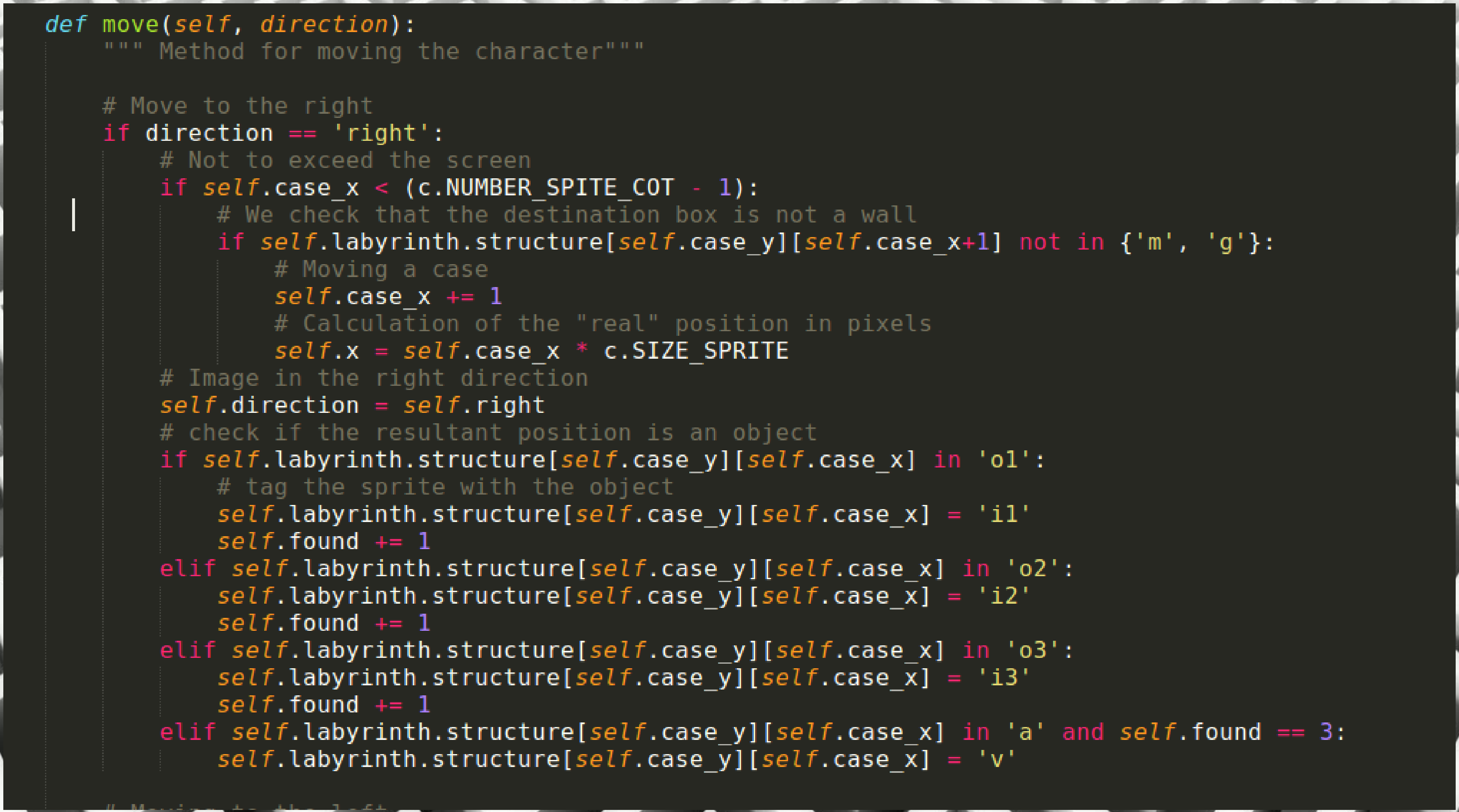


```
dmmmmmimmimmimm
000000mm0mmmmm0
0mm0m0000000000
0m000m0mmm0m0m0
00mmmm0mm0m000m
m000mm00m0mmm00
m0m0mmmm00000mm
m0m0m0000mmm0m0
000mm0mm0m000m0
m0mm00000m0mmm0
m000mmmm0m00000
mmm0m0000mmm0m0
m000m0mmmmmm0mm
m0mmm0m00000000
m00000mmm0mmmma

```



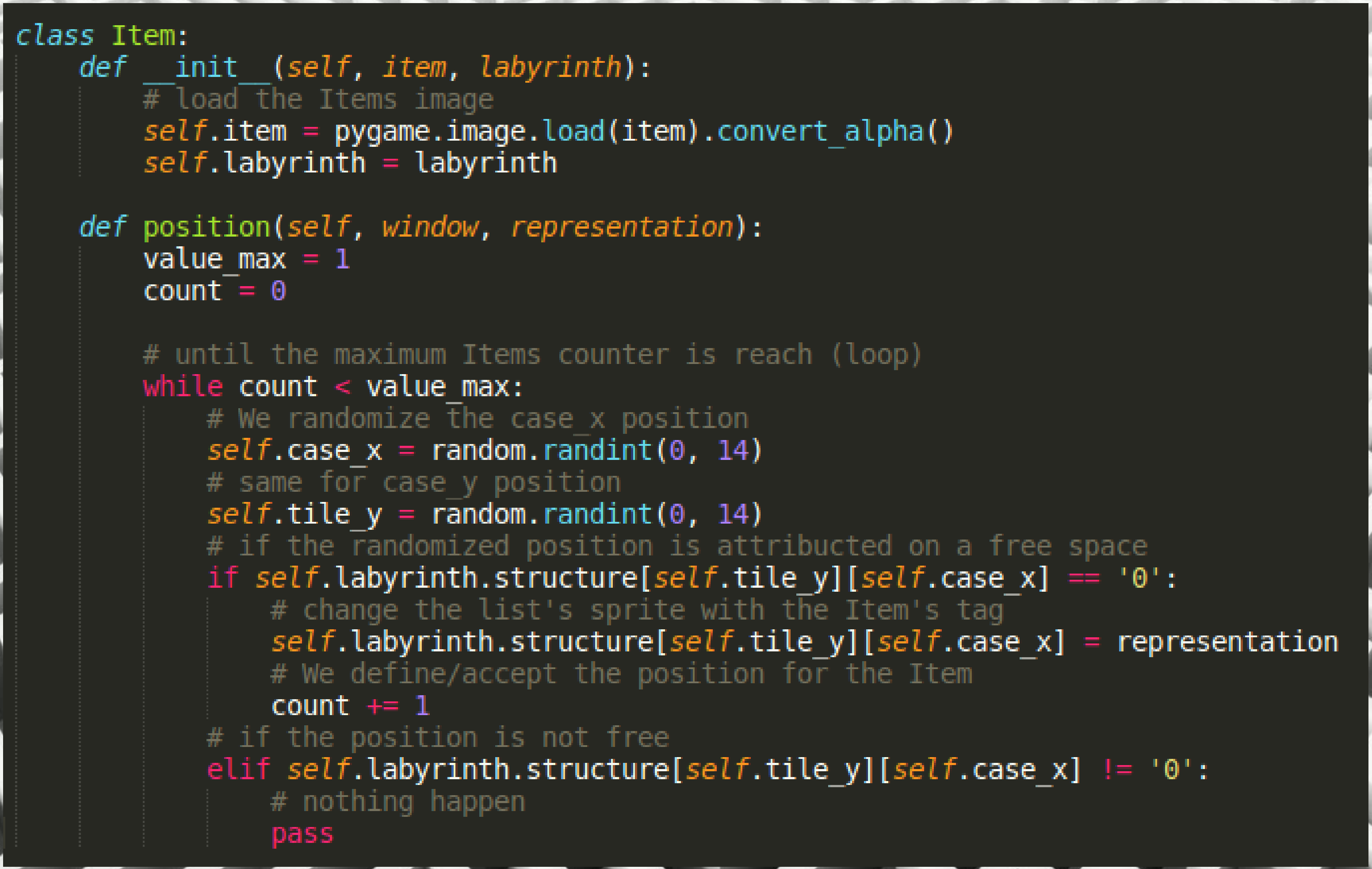
- ***Déplacement du personnage :***





```python
def move(self, direction):
    """ Method for moving the character"""

    # Move to the right
    if direction == 'right':
        # Not to exceed the screen
        if self.case_x < (c.NUMBER_SPITE_COT - 1):
            # We check that the destination box is not a wall
            if self.labyrinth.structure[self.case_y][self.case_x+1] not in {'m', 'g'}:
                # Moving a case
                self.case_x += 1
                # Calculation of the "real" position in pixels
                self.x = self.case_x * c.SIZE_SPRITE
        # Image in the right direction
        self.direction = self.right
        # check if the resultant position is an object
        if self.labyrinth.structure[self.case_y][self.case_x] in 'o1':
            # tag the sprite with the object
            self.labyrinth.structure[self.case_y][self.case_x] = 'i1'
            self.found += 1
        elif self.labyrinth.structure[self.case_y][self.case_x] in 'o2':
            self.labyrinth.structure[self.case_y][self.case_x] = 'i2'
            self.found += 1
        elif self.labyrinth.structure[self.case_y][self.case_x] in 'o3':
            self.labyrinth.structure[self.case_y][self.case_x] = 'i3'
            self.found += 1
        elif self.labyrinth.structure[self.case_y][self.case_x] in 'a' and self.found == 3:
            self.labyrinth.structure[self.case_y][self.case_x] = 'v'

    # Moving to the left
```

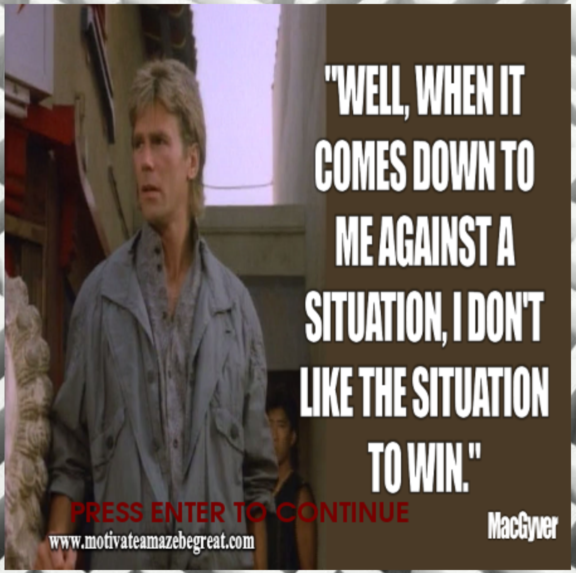
- ## *Position aléatoire des objets :*



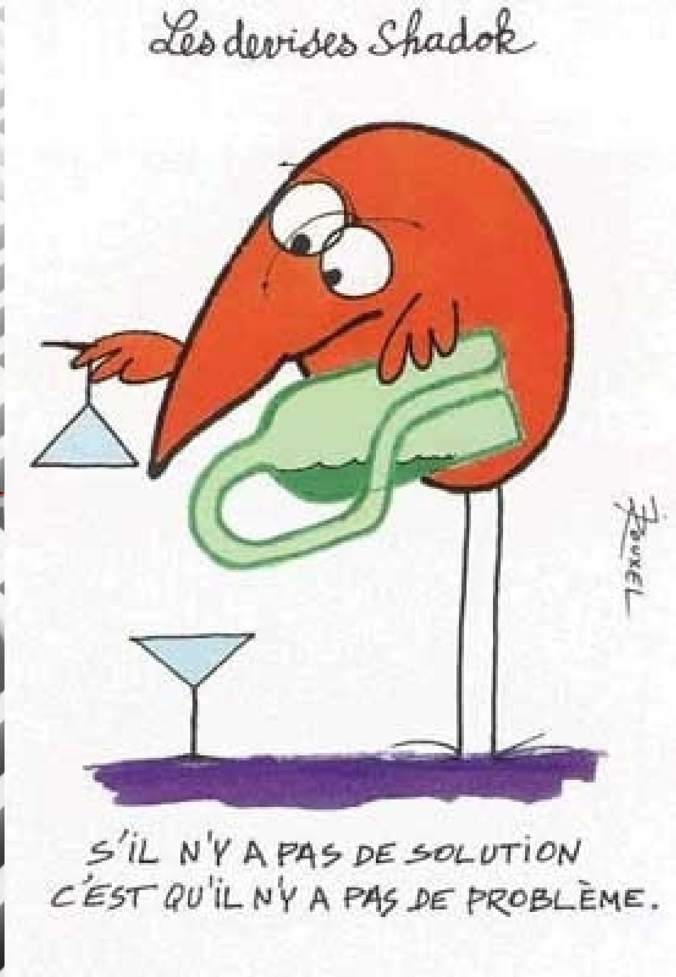
```
class Item:
    def __init__(self, item, labyrinth):
        # load the Items image
        self.item = pygame.image.load(item).convert_alpha()
        self.labyrinth = labyrinth

    def position(self, window, representation):
        value_max = 1
        count = 0

        # until the maximum Items counter is reach (loop)
        while count < value_max:
            # We randomize the case_x position
            self.case_x = random.randint(0, 14)
            # same for case_y position
            self.tile_y = random.randint(0, 14)
            # if the randomized position is attributed on a free space
            if self.labyrinth.structure[self.tile_y][self.case_x] == '0':
                # change the list's sprite with the Item's tag
                self.labyrinth.structure[self.tile_y][self.case_x] = representation
                # We define/accept the position for the Item
                count += 1
            # if the position is not free
            elif self.labyrinth.structure[self.tile_y][self.case_x] != '0':
                # nothing happen
                pass
```

- ***Condition de Victoire :***

C'est lorsque l'on croit tout savoir,
qu'on est le plus vulnérable
Angus MacGyver
GAME OVER
PRESS ESCAPE


"WELL, WHEN IT COMES DOWN TO ME AGAINST A SITUATION, I DON'T LIKE THE SITUATION TO WIN."
MacGyver
PRESS ENTER TO CONTINUE
www.motivateamazebegreat.com

IV-Les difficultés rencontrées


Les devises Shadok
S'IL N'Y A PAS DE SOLUTION C'EST QU'IL N'Y A PAS DE PROBLÈME.
J. Rouxel