

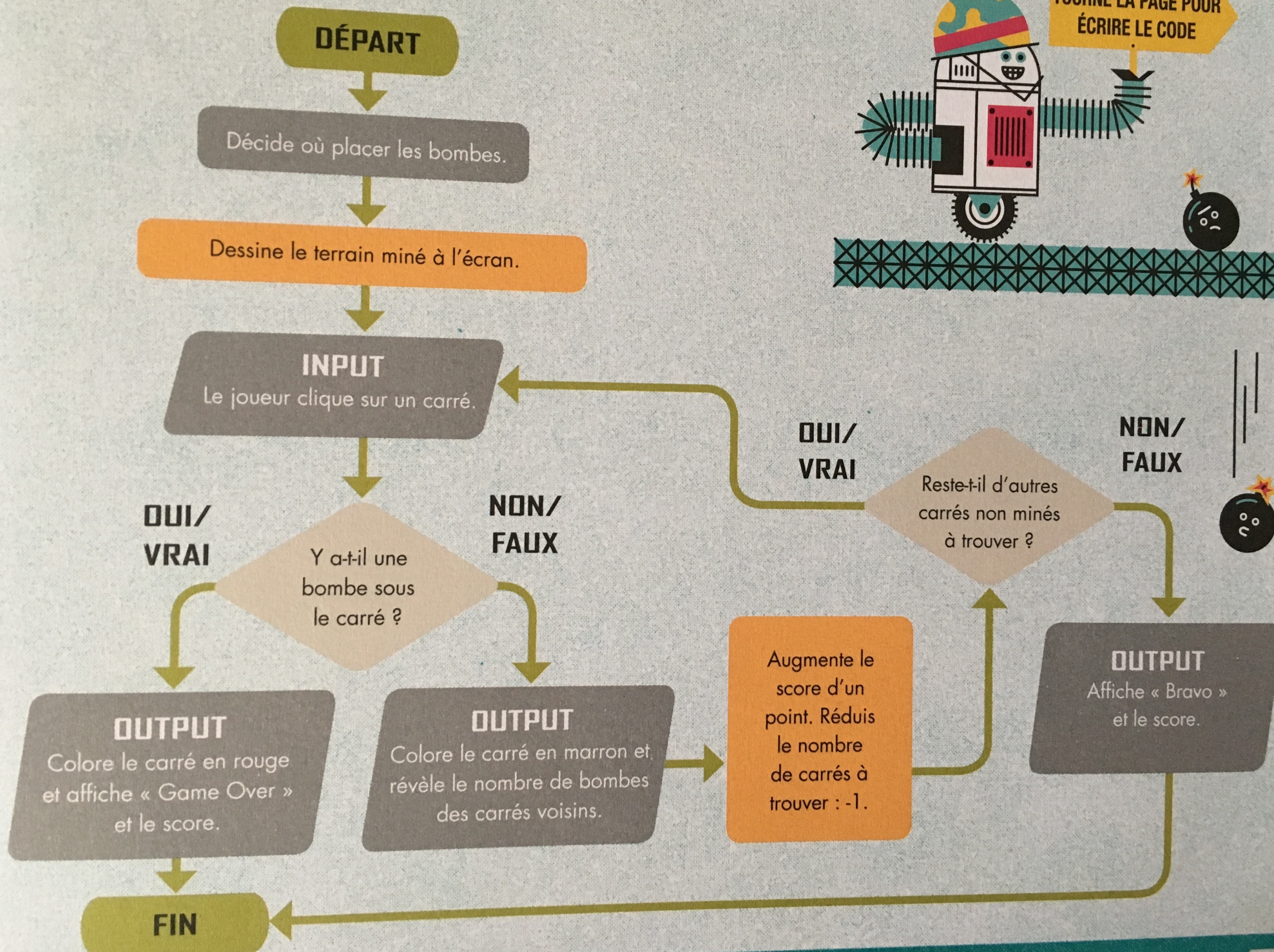


LE DÉMINEUR

ICN :: 2019

LA LOGIQUE

voilà l'organigramme de programmation correspondant à ce jeu.



CREATION DU TERRAIN MINÉ (LOGIQUE)

```
def creer_terrainMine(terrainMine):
```

```
    global carresAVerifier
```

```
    for rangee in range(0,10):
```

```
        listeRangee = []
```

```
        for colonne in range(0,10):
```

```
            if random.randint(1,100) < 20:
```

```
                listeRangee.append(1)
```

```
            else:
```

```
                listeRangee.append(0)
```

```
                carresAVerifier = carresAVerifier + 1
```

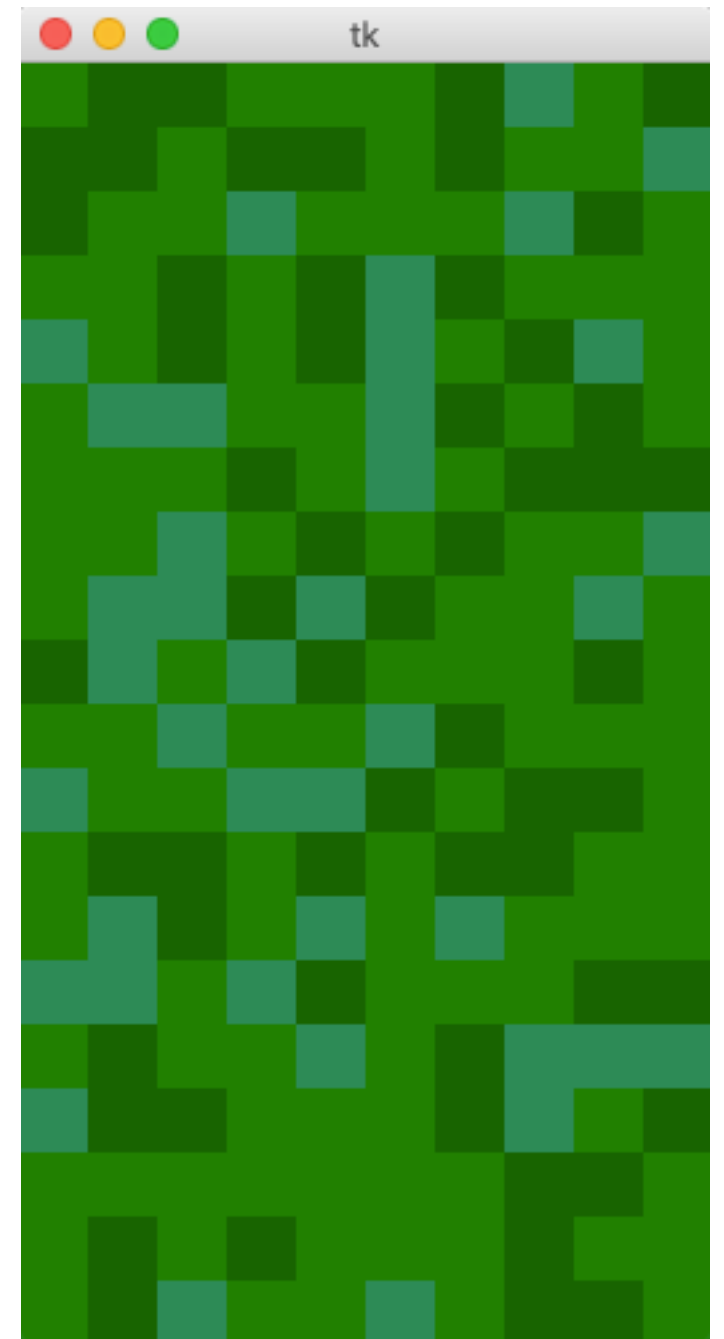
```
        terrainMine.append(listeRangee)
```

```
    printTerrain(terrainMine)
```

```
def creer_terrainMine(terrainMine):  
    global carresAVerifier  
    for rangee in range(0,20):  
        listeRangee = []  
        for colonne in range(0,10):  
            if random.randint(1,100) < 10:  
                listeRangee.append(1)  
            else:  
                listeRangee.append(0)  
                carresAVerifier = carresAVerifier + 1  
        terrainMine.append(listeRangee)  
    printTerrain(terrainMine)
```

MODIFICATION A FAIRE

- Faire un terrain de 20 X 10
- Actuellement on a 20 % de chance ou de malchance de tomber sur une bombe changer pour avoir 10 %



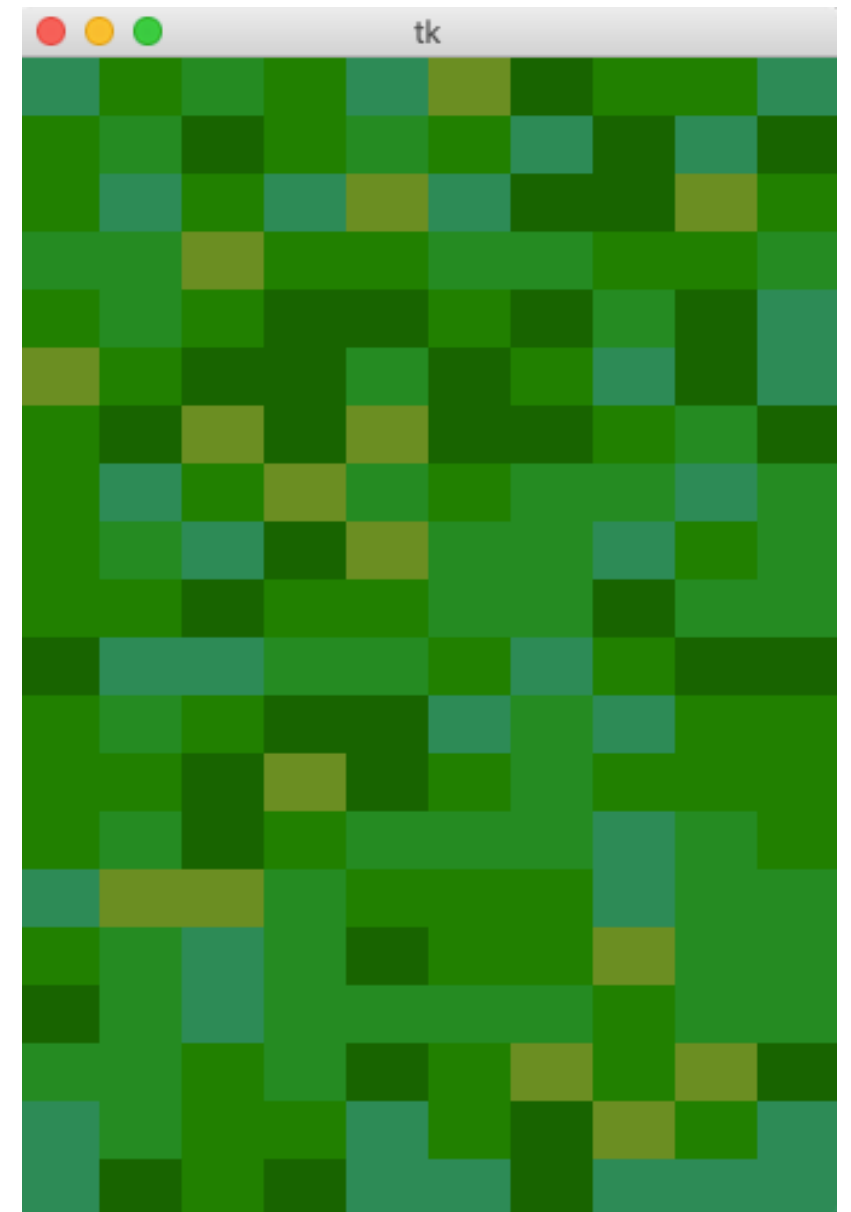
CREATION DU TERRAIN MINÉ (GRAPHISME)

```
def configuration_fenetre(fenetre):  
    for numeroRangee, listeRangee in enumerate(terrainMine):  
        for numeroColonne, entreeColonne in enumerate(listeRangee):  
            if random.randint(1,100) < 25:  
                carre = tkinter.Label(fenetre, text = "  ", bg ="darkgreen")  
            elif random.randint(1,100) > 75:  
                carre = tkinter.Label(fenetre, text = "  ", bg ="seagreen")  
            else:  
                carre = tkinter.Label(fenetre, text = "  ", bg ="green")  
            carre.grid(row = numeroRangee, column = numeroColonne)  
            carre.bind("<Button-1>", quand_clique)
```

MODIFICATION A FAIRE

- Augmenter la largeur des cases
- Ajouter 2 teintes de vert de votre choix

lightyellow	lightgoldenrodyellow	olive	yellow	olivedrab
yellowgreen	darkolivegreen	greenyellow	chartreuse	lawngreen
honeydew	darkseagreen	palegreen	lightgreen	forestgreen
limegreen	darkgreen	green	lime	seagreen
mediumseagreen	springgreen	mintcream	mediumspringgreen	mediumaquamarine



GESTION DU CLIC

.....

```
def quand_clique(event):
    global score
    global gameOver
    global carresAVerifier
    carre = event.widget
    rangee = int(carre.grid_info()["row"])
    colonne = int(carre.grid_info()["column"])
    textActuel = carre.cget("text")

    if gameOver == False:
        if terrainMine[rangee][colonne] == 1:
            gameOver = True
            carre.config(bg = "red")
            print("Game Over ! Tu as touché une bombe !")
            print("Ton score :", score)
        elif textActuel == " ":
            carre.config(bg = "brown")
            totalBombes = 0

            if rangee < 9:
                if terrainMine[rangee+1][colonne] == 1:
                    totalBombes = totalBombes + 1
            if rangee > 0:
                if terrainMine[rangee-1][colonne] == 1:
                    totalBombes = totalBombes + 1
            if colonne > 0:
                if terrainMine[rangee][colonne-1] == 1:
                    totalBombes = totalBombes + 1
            if colonne < 9:
                if terrainMine[rangee][colonne+1] == 1:
                    totalBombes = totalBombes + 1
            if rangee > 0 and colonne > 0:
                if terrainMine[rangee-1][colonne-1] == 1:
                    totalBombes = totalBombes + 1
            if rangee < 9 and colonne > 0:
                if terrainMine[rangee+1][colonne-1] == 1:
                    totalBombes = totalBombes + 1
            if rangee > 0 and colonne < 9:
                if terrainMine[rangee-1][colonne+1] == 1:
                    totalBombes = totalBombes + 1
            if rangee < 9 and colonne < 9:
                if terrainMine[rangee+1][colonne+1] == 1:
                    totalBombes = totalBombes + 1

            carre.config(text = " " + str(totalBombes) + "")
            carresAVerifier = carresAVerifier - 1
            score = score + 1

    if carresAVerifier == 0:
        gameOver = True
        print("Bravo, tu as trouvé tous les carrés non minés.")
        print("Ton score :", score)
```

FONCTION PRINCIPALE

```
def jouer_demineur():  
    creer_terrainMine(terrainMine)  
    fenetre = tkinter.Tk()  
    configuration_fenetre(fenetre)  
    fenetre.mainloop()
```