



CODE FESTIVAL 2022

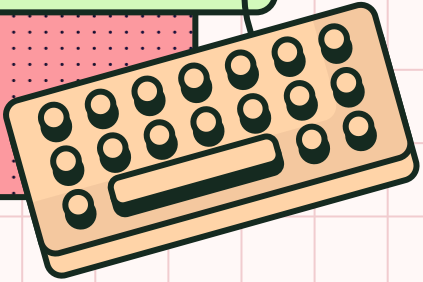
Team Name : Team Shinichi

Group members : Tan Yi Xin

Loh Yee Tung

Lim Hui Wen

School Name : SMJK Perempuan China Pulau Pinang



Python coding
Be Creative: Fun with fractals



CONTENT

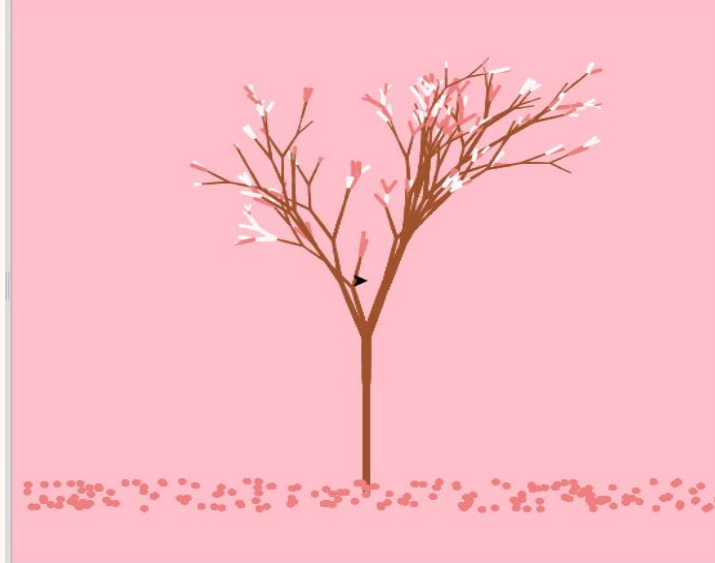
OVERVIEW OF OUR PROJECT

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- 05 Idea about project
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PRESENTED BY: LIM HUI WEN

DONE BY: LOH YEE TUNG | TAN YI XIN

OVERVIEW OF THE OUTPUT OF OUR PROJECT





IDEA ABOUT PROJECT

The idea of creating a sakura trees with code is arises from the Japanese romantic drama 'You Lie In April'. The sakura trees we created is refer to the sakura trees that showed in the drama.



OVERVIEW CODE USED

```
1 import turtle as T
2 import random
3 import time
4
5 T.getscreen()
6 T.Screen().bgcolor("pink")
7 T.speed(100000)
8
9 # Drawing the torso of sakura(60,t)
```



OVERVIEW CODE USED

```
10 ▾ def Tree(branch, t):  
11     time.sleep(0.0005)  
12 ▾     if branch > 3:  
13 ▾         if 8 <= branch <= 12:  
14 ▾             if random.randint(0, 2) == 0:  
15                 t.color('snow') # white  
16 ▾             else:  
17                 t.color('lightcoral') # light coral  
18                 t.pensize(branch / 3)
```



OVERVIEW CODE WE USED

```
19 ▾ elif branch < 8:  
20 ▾     if random.randint(0, 1) == 0:  
21         t.color('snow')  
22 ▾     else:  
23         t.color('lightcoral') # light coral  
24         t.pensize(branch / 2)  
25 ▾ else:  
26         t.color('sienna') # sienna  
27         t.pensize(branch / 10) # 6
```



OVERVIEW CODE USED

```
28 t.forward(branch)
29 a = 1.5 * random.random()
30 t.right(20 * a)
31 b = 1.5 * random.random()
32 Tree(branch - 10 * b, t)
33 t.left(40 * a)
34 Tree(branch - 10 * b, t)
35 t.right(20 * a)
36 t.up()
37 t.backward(branch)
38 t.down()
39
```




OVERVIEW CODE WE USED

```
40 # falling petals
41 def Petal(m, t):
42     for i in range(m):
43         a = 200 - 400 * random.random()
44         b = 10 - 20 * random.random()
45         t.up()
46         t.forward(b)
47         t.left(90)
48         t.forward(a)
49         t.down()
50         t.color('lightcoral') # slide coral
51         t.circle(1)
52         t.up()
53         t.backward(a)
54         t.right(90)
55         t.backward(b)
56
```



OVERVIEW CODE USED

```
57 # drawing area
58 t = T.Turtle()
59 # canvas size
60 w = T.Screen()
61 t.hideturtle() # hide brush
62 t.getscreen().tracer(5, 0)
63 t.left(90)
64 t.up()
65 t.backward(150)
66 t.down()
67 t.color('sienna')
```



OVERVIEW CODE WE USED

```
68  
69 # Drawing the torso of sakura  
70 Tree(60, t)  
71 # falling petals  
72 Petal(200, t)  
73 w.exitonclick()  
74
```



OVERVIEW CODE USED

```
75 import turtle
76 turtle.penup()
77 turtle.goto(-110,-190)
78 turtle.color("white")
79 turtle.write('Happy Spring Day',font=('Arial',25))
80 turtle.hideturtle()
81 turtle.exitonclick()
```

