

EVENTS IN TK LIBRARY

WHAT IS AN **EVENT** AND HOW TO USE IT?

Events are used to track user interaction with the windows.

Examples of events:

- User click on a shape
- User type on the keyboard

With TK you can trigger a function every time an event happens.

EXAMPLE CODE : **CLICK EVENT**

Trigger function should **always** have a parameter « **event** »

```
def myEventTrigger(event):  
    print("User has clicked at position : ", event.x, event.y)  
  
    canvas = tk.Canvas(frame)  
    oval = canvas.create_oval(50, 50, 300, 300, fill="red", tags="PNCTarget")  
    canvas.tag_bind("PNCTarget", "<Button-1>", myEventTrigger)
```

This is the **ID** of the shape

Use « **tag_bind** » to link a function with an event

<Button-1> = left button of mouse
<Button-2> = right button of mouse

The name of the function to call every time the event will happen

EXAMPLE CODE : **CHANGE A SHAPE COLOR IN TRIGGER FUNCTION**

```
def myEventTrigger(event):  
    print("User have clicked at position : ", event.x, event.y)  
    randomColor = random.choice(colors)  
    canvas.itemconfig(oval, fill=randomColor)  
    canvas.move(oval, 0, -20)
```

Use « **itemconfig** » to change a shape color

Use « **move** » to change a shape position

```
canvas = tk.Canvas(frame)  
colors = ["red", "orange", "yellow", "green", "blue", "indigo", "violet"]  
oval = canvas.create_oval(50, 50, 300, 300, fill="red", tags="PNCTarget")  
canvas.tag_bind("PNCTarget", "<Button-1>", myEventTrigger)
```

Put the shape inside a variable so you can modify it later