CHAPTER 3

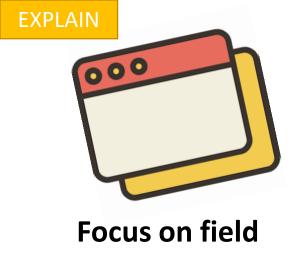
EVENTS

ACTIVITY 1 \(\text{\cdot} \)



10 MIN

Answer to questions on word document





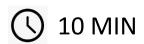
Form submitted

Events come from different sources





Key pressed / released



DEMO!!!!



Mouse over

https://www.w3schools.com/js/tryit.asp?filename=tryjs_imagemap

Simple click

https://www.w3schools.com/js/tryit.asp?filename=tryjs_events_onclick

Double click

https://www.w3schools.com/js/tryit.asp?filename=tryjs_events_ondblclick

Mouse move

https://www.w3schools.com/js/tryit.asp?filename=tryjs_events_onmousemove



Key pressed

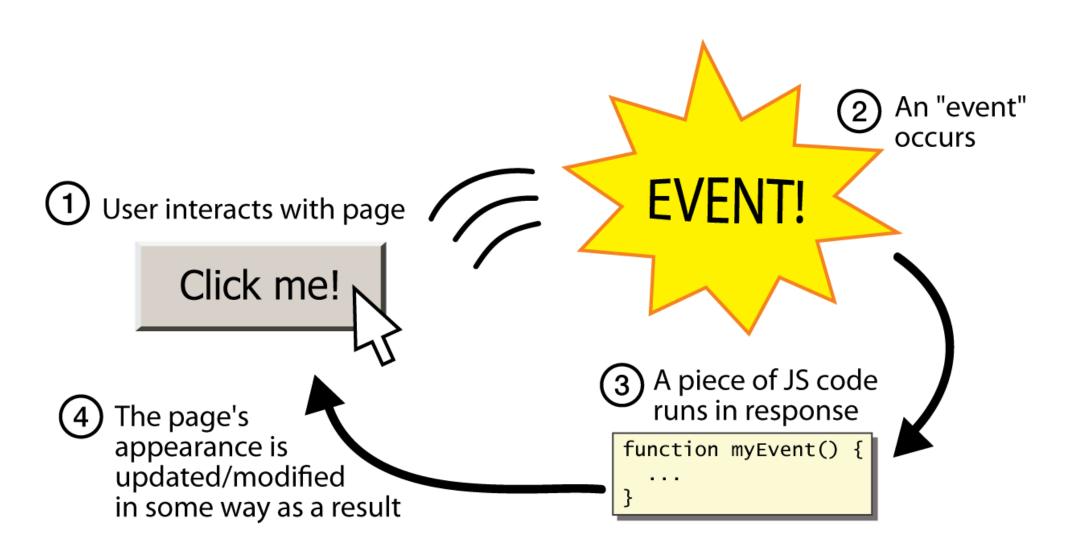
https://www.w3schools.com/js/tryit.asp?filename=tryjs_events_onkeypress



Leave a field

https://www.w3schools.com/js/tryit.asp?filename=tryjs_events_onblur

Listen to an event And do something



Remember TKINTER

```
def myEventTrigger(event):
    print("User has clicked at position : ", event.x, event.y)

canvas = tk.Canvas(frame)
    canvas.create_oval(50, 50, 300, 300, fill="red", tags="PNCTarget")
    canvas.tag_bind("PNCTarget","<Button-1>",myEventTrigger)
```

Use « tag_bind » to link a function with an event

<Button-1> = left button of mouse

<Button-3> = right button of mouse

The function to call everytime the event will happen

Set a tag to the shape.

Similar to ID in HTML

Functions to access to DOM elements

Register an event Handler, for the event name to the element, and the function to execute when the event happens.

Register an event Handler, for the event name to the element, and the function to execute when the event happens.

Remove the event Handler function for the event name from the element.



ACTIVITY 2 \(\text{10 MIN} \)

Complete the 3 TODO!!

ACTIVITY 3 () 10 MIN

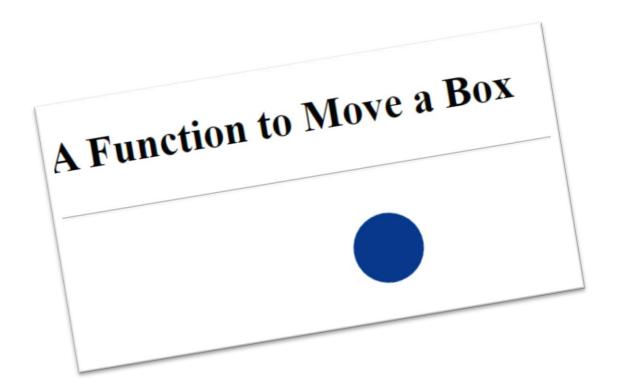
Get information from event



event.clientX	The X coordinate at which the event occured
event.clientY	The Y coordinate at which the event occured
event.target	reference to the object related to the event

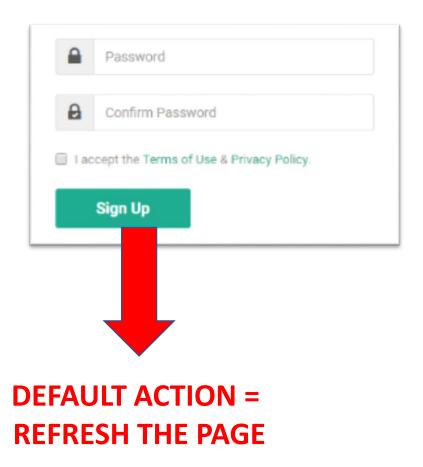
ACTIVITY 4 () 10 MIN

Make the ball move with the mouse!



Cancel default actions

If you don't need them!



Link Display

- Normal Web link
- · Link without an href attribute
- Link with empty href attribute
- · Link with href and `#0`
- Link with JavaScript: ag



OPEN NEW PAGE

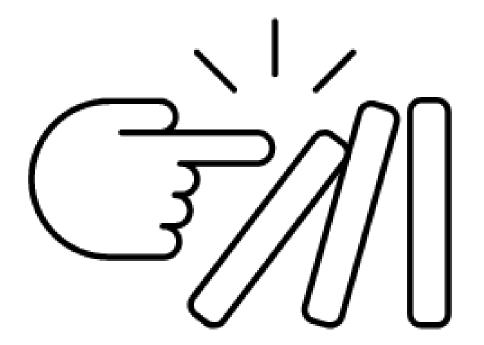
Cancel default actions

If you don't need them!

e.	preventDefault	default action that belongs to the event will not occur.

ACTIVITY 5 \(\) 10 MIN

Event Bubbling



Event Bubbling

When an event happens on an element:

- it **first runs** the listeners on it
- then on its parent
- then all the way up on other ancestors.











Now you should know this:

- 1- Different kind of events (mouse, keys,,)
- 2- Add/Remove listeners to events
 - addEventListener
 - -removeEventListener
- **3- Event properties**
 - -event.target
 - event.client
- 4- **Default events** / how to avoid them
 - preventDefault

5- **Events** cascade mecanism