Are event listeners heavy on performance?

Event listeners are great, but how do they work?

You may think that the event listener that we've attached to the element constantly checks if the event has been fired. This kinda makes sense.

But if this were the case, you would agree with me that this would then mean that having more event listeners on our page would slow it down. There would be hundreds of checks and pings going on in the background, all the time.

Fortunately, listeners are lazy, just like my Aunt Betty

The term "event listener" is throwing you off. By using a verb, it suggests that the 'listener' is actively doing something to listen.

This is not the case.

In fact, it's not doing anything at all.

It's just sitting there, waiting.

This "listener" is a function that is subscribed to the event, meaning that when the event is actually fired, it will be notified. This listener will then call the event handler to execute.

The benefit of this pattern is that there's no cost until the button (or whatever the event is) is actually pushed (or fired). The event can be handled this way without being monitored because it originates from what developers call a "hardware interrupt," which briefly preempts the running code to fire the event.

But enough on this for now.

You get the idea.

Hope its making sense.