



# Fullstack Web Development Tutorial Lesson 13

## Today's lesson will cover

- Event delegation
- UI events
- popups



# JavaScript fundamentals

## Event Delegation

- Following the concept of Bubbling and Capturing, the idea is instead of having a lot of elements handled, one single handler on ancestor using `event.target` sees where event happened, and handle it
- Could also use classes `.action-save`, `.action-load`, but an attribute `data-action` is better semantically. And we can use it in CSS rules too
- Use event delegation to add “behaviors” to elements *declaratively*, with special attributes and classes. The pattern has two parts:
  - We add a custom attribute to an element that describes its behavior.
  - A document-wide handler tracks events, and if an event happens on an attributed element – performs the action.

## Mouse events

- The common mouse events are:
  - `mousedown/mouseup`: Mouse button is clicked/released over an element.
  - `mouseover/mouseout`: Mouse pointer comes over/out from an element.
  - `Mousemove`: Every mouse move over an element triggers that event.
  - `click`: Triggers after `mousedown` and then `mouseup` over the same element if the left mouse button was used.
  - `Contextmenu`: Triggers when the right mouse button is pressed. There are other ways to open a context menu, e.g. using a special keyboard key, it triggers in that case also, so it's not exactly the mouse event.

## Events: change, input, cut, copy, paste

- The `change` event triggers when the element has finished changing.
- The `input` event triggers every time after a value is modified by the user.
- Events occur on cutting/copying/pasting a value. They belong to `ClipboardEvent` class and provide access to the data that is copied/pasted. We also can use `event.preventDefault()` to abort the action, then nothing gets copied/pasted.

## Popups and window methods

- **Most browsers block popups if they are called outside of user-triggered event handlers like `onclick`.**
- The syntax to open a popup is: `window.open(url, name, params):`
  - **Params:** The configuration string for the new window. It contains settings, delimited by a comma. There must be no spaces in params, for instance: `width:200,height=100`.
- Settings for `params`:
  - Position:
    - `left/top` (numeric) – coordinates of the window top-left corner on the screen. There is a limitation: a new window cannot be positioned offscreen.
    - `width/height` (numeric) – width and height of a new window. There is a limit on minimal width/height, so it's impossible to create an invisible window.
  - Window features:
    - `menubar` (yes/no) – shows or hides the browser menu on the new window.
    - `toolbar` (yes/no) – shows or hides the browser navigation bar (back, forward, reload etc) on the new window.
    - `location` (yes/no) – shows or hides the URL field in the new window. FF and IE don't allow to hide it by default.
    - `status` (yes/no) – shows or hides the status bar. Again, most browsers force it to show.
    - `resizable` (yes/no) – allows to disable the resize for the new window. Not recommended.
    - `scrollbars` (yes/no) – allows to disable the scrollbars for the new window. Not recommended.



# Self Study Assignments



## To Dos

- Continue freecodecamp (FCC) Javascript. Ideally finish before we resume after summer.
- Continue with FCC HTML, CSS lessons. Ideally finish all the lessons by end of this month.
- If you believe FCC exercises aren't the best for you if you are quite advanced already, please start working on your own project and reach out to mentors for help if needed.